

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2020

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission file number: 001-38703

VELODYNE LIDAR, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or Other Jurisdiction of Incorporation or Organization)

83-1138508
(I.R.S. Employer Identification Number)

5521 Hellyer Avenue
San Jose, CA
(Address of principal executive offices)

95138
(Zip Code)

Registrant's telephone number, including area code: (669) 275-2251

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value \$0.0001 per share	VLDR	The Nasdaq Stock Market LLC
Warrants, each exercisable for three-quarters of one share of common stock	VLDRW	The Nasdaq Stock Market LLC

Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act by the registered public accounting firm that prepared or issued its audit report.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of June 30, 2020, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the common stock outstanding of Graf Industrial Corp. (the former name of the registrant), other than shares held by persons who may be deemed affiliates of the registrant, computed by reference to the closing sales price for the common stock of Graf Industrial Corp. on such date, as reported on the New York Stock Exchange, was \$159,227,794. On September 30, 2020, the registrant's common stock and warrants began trading on the Nasdaq Global Select Market under the symbols "VLDR" and "VLDRW," respectively.

As of March 10, 2021, the registrant had 188,303,228 shares of common stock, \$0.0001 par value per share, outstanding.

Documents Incorporated by Reference

Information required in response to Part III of this Annual Report on Form 10-K is hereby incorporated by reference from the registrant's definitive Proxy Statement for its 2021 Annual Meeting of Stockholders. Except as expressly incorporated by reference, the registrant's Proxy Statement shall not be deemed to be a part of this Annual Report on Form 10-K. The registrant intends to file its definitive Proxy Statement within 120 days after its fiscal year ended December 31, 2020.

VELOCITYNE LIDAR, INC. AND SUBSIDIARIES

Table of Contents

	<u>Page</u>
PART I.	
Item 1. Business	3
Item 1A. Risk Factors	10
Item 1B. Unresolved Staff Comments	35
Item 2. Properties	35
Item 3. Legal Proceedings	35
Item 4. Mine Safety Disclosures	37
PART II.	
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	37
Item 6. Selected Financial Data	37
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	38
Item 7A. Quantitative and Qualitative Disclosures About Market Risk	53
Item 8. Audited Financial Statements	54
Item 9. Changes in Disagreements with Accountants on Accounting and Financial Disclosures	91
Item 9A. Controls and Procedures	91
Item 9B. Other Information	92
PART III.	
Item 10. Directors, Executive Officers and Corporate Governance	92
Item 11. Executive Compensation	93
Item 12. Security Ownership of Certain Beneficial Owner and Management and Related Stockholder Matters	93
Item 13. Certain Relationships and Related Transactions, and Director Independence	93
Item 14. Principal Accounting Fees and Services	93
PART IV.	
Item 15. Exhibits, Financial Statement Schedules	93
Item 16. Form 10-K Summary	96
Signatures	97

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the federal securities laws and particularly in Item 1: “Business,” Item 1A: “Risk Factors,” Item 3: “Legal Proceedings” and Item 7: “Management’s Discussion and Analysis of Financial Condition and Results of Operations” of this Annual Report on Form 10-K. These statements are based on the expectations and beliefs of management of Velodyne in light of historical results and trends, current conditions and potential future developments, and are subject to a number of factors and uncertainties that could cause actual results to differ materially from forward-looking statements. These forward-looking statements include statements about the future performance and opportunities of Velodyne; statements of the plans, strategies and objectives of management for future operations of Velodyne; statements regarding future market opportunities, economic conditions or performance; and statements regarding the Business Combination (as defined herein). Forward-looking statements may contain words such as “will be,” “will,” “expect,” “anticipate,” “continue,” “project,” “believe,” “plan,” “could,” “estimate,” “forecast,” “guidance,” “intend,” “may,” “possible,” “potential,” “predict,” “pursue,” “should,” “target,” “likely” or similar expressions, and include the assumptions that underlie such statements.

The following factors, among others, could cause actual results to differ materially from forward- looking statements:

- Velodyne’s future performance, including Velodyne’s revenue, costs of revenue, gross profit or gross margin, and operating expenses;
- the sufficiency of Velodyne’s cash and cash equivalents to meet its operating requirements;
- Velodyne’s ability to sell its products to new customers;
- the success of Velodyne’s customers in developing and commercializing products using Velodyne’s solutions, and the market acceptance of those products;
- the amount and timing of future sales;
- Velodyne’s future market share;
- competition from existing or future businesses and technologies;
- the impact of the COVID-19 pandemic on Velodyne’s business and the business of its customers;
- the market for and adoption of lidar and related technology;
- Velodyne’s ability to effectively manage its growth and future expenses;
- Velodyne’s ability to compete in a market that is rapidly evolving and subject to technological developments;
- Velodyne’s ability to maintain, protect, and enhance its intellectual property;
- Velodyne’s ability to comply with modified or new laws and regulations applying to its business;
- the attraction and retention of qualified employees and key personnel;
- Velodyne’s ability to introduce new products that meet its customers’ requirements and to continue successfully transitioning the manufacturing of its products to third-party manufacturers;
- Velodyne’s anticipated investments in and results from sales and marketing and research and development;
- the increased expenses associated with Velodyne being a public company; and
- use of the net proceeds to Velodyne from the cash on hand after the closing of the Merger (as defined herein).

The foregoing review of important factors should not be construed as exhaustive and should be read in conjunction with the other risk factors herein discussed under Item 1A: “Risk Factors.” Forward-looking statements reflect current views about Velodyne’s plans, strategies and prospects, which are based on information available as of the date of this Annual Report on Form 10-K. Except to the extent required by applicable law, Velodyne undertakes no obligation (and expressly disclaims any such obligation) to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

Forward-looking statements are subject to risks and uncertainties, many of which are outside our control, which could cause actual results to differ materially from these statements. Therefore, you should not place undue reliance on those statements, which speak only as of the date of this Annual Report on Form 10-K.

PART I. Financial Information

Item 1. Business

Overview

Velodyne, the first pure-play lidar company, is a global leader in lidar technology providing real-time 3D vision for autonomous systems. Our lidar solutions are advancing the development of safe automated systems throughout the world, thereby empowering the autonomous revolution by allowing machines to see their surroundings. In automotive applications, our products improve roadway safety by providing perception data for reliable object avoidance and safe path-planning. To improve roadway, bicycle, and pedestrian safety, we sell automotive solutions to the rapidly expanding Advanced Driver Assistance Systems (“ADAS”) market, which will incrementally address the requirements of the National Highway Traffic Safety Administration (“NHTSA”) 5-Star Safety Ratings System.

Our lidar-based smart vision solutions are also deployed in many non-automotive applications, including autonomous mobile robots, unmanned aerial vehicles (“UAV”)/drones, last-mile delivery, precision agriculture, advanced security systems, and smart city initiatives. In the past, purchases of our solutions in these markets have been primarily focused on research and development projects. We are now seeing growth within this sector of the industry as many of our non-automotive customers move into commercial production with their offerings.

Through our direct sales team as well as through distributors, we sell to both automotive customers, including top automotive OEMs, system integrators, and last-mile delivery providers, as well as to non-automotive customers providing an array of industrial, drone, and security applications, among others.

We believe that our lidar technologies can significantly reduce the number of lives lost in vehicle crashes and substantially reduce pedestrian and bicyclist fatalities. Beyond the automotive industry, our technology can also help reduce injuries in areas including factories, construction sites, mines, oil rigs and ports. Lidar technology can also enhance public welfare through security and smart city applications. In addition, our solutions are being used in applications such as touchless delivery, sanitation and physical distance tracking, all of which have advanced safety and health measures during the COVID-19 pandemic.

Business Combination

Graf Industrial Corp. (“Graf”), our predecessor, was originally incorporated in Delaware as a special purpose acquisition company. On July 2, 2020, Graf and VL Merger Sub Inc., a wholly owned subsidiary of Graf entered into a merger agreement with Velodyne (the “Merger Agreement”). We refer to the transactions contemplated by the Merger Agreement as the “Business Combination.” Graf consummated the Business Combination on September 29, 2020. Immediately upon the consummation of the Business Combination, the pre-combination Velodyne became a wholly-owned subsidiary of Graf. Graf changed its name to Velodyne Lidar, Inc. and the pre-combination Velodyne Lidar changed its name to Velodyne Lidar USA, Inc. On September 30, 2020, Velodyne Lidar’s common stock and warrants began trading on the Nasdaq Global Select Market under the symbol “VLDR” and “VLDRW,” respectively.

The aggregate consideration for the Business Combination and related transactions was approximately \$1.8 billion, consisting of (i) \$222.1 million in cash at the closing of the Business Combination, net of transaction expenses, and (ii) 150,277,532 shares of common stock valued at \$10.25 per share, totaling \$1,540.3 million.

Our Technology Platform

Our hardware and software solutions center around our proprietary lidar sensor technology, which enables real-time, three-dimensional vision of the surrounding environment for a breadth of autonomous and intelligent systems.

To perceive the environment in 3D, our sensor emits a series of laser pulses, typically millions of pulses each second, which bounce off objects in the environment and return to the sensor. The device measures the time each pulse traveled and uses highly sophisticated, real-time algorithms to create digital, machine-readable maps of the surrounding environment. These maps have up to centimeter-level precision and capture rich detail all around the sensor. Since the maps are continually refreshed every few milliseconds, they can be used to perceive both static and dynamic objects. Unlike cameras that are two-dimensional and radar that is not capable of high-definition imaging, our lidar captures a precise, high definition, three-dimensional view of the environment. These characteristics make our lidar technology the ideal sensor platform for cars, robots and other autonomous machines to perceive the world as they move through it.

Our Product Portfolio

Using an array of eye-safe lasers, our lidar solutions measure distances in the environment at the speed of light. Unlike camera-based solutions, lidar solutions allow machines to see in 3D by providing precise distance measurements of surrounding objects. Lidar also performs better than cameras in low light conditions and produces fewer errors. Compared to radar, lidar provides better resolution, perceiving objects' shapes for superior object detection and classification. Lidar also performs better than cameras in darkened conditions and produces fewer errors. Lidar systems currently being tested can detect pedestrians equally well during daytime and nighttime conditions because the systems provide self-illumination by means of laser beams. Together with lower computing power requirements, these features enable autonomous platforms to make fast and accurate decisions to mitigate collisions. Velodyne's proprietary lidar-based hardware and software solutions combine class-leading range, up to centimeter-level accuracy and lower power consumption with high-grade reliability.

Surround View Lidar

We offer a broad lineup of surround-view lidar to support numerous end applications, including autonomous vehicles, drones, security, and mapping.

VLS-128 (Alpha Prime) is our flagship surround-view lidar and the first sensor in the world capable of 300-meter range, specifically made for autonomous driving and advanced vehicle safety at highway speeds. The lidar sensor incorporates 128 lasers and provides real-time 3D data up to 0.1-degree vertical and horizontal resolution. The Alpha Prime provides the best combination of range, resolution and precision to enable Level 4 and Level 5 autonomous vehicles to function both at highway speeds as well as in low-speed urban environments. We were recognized with the Pace Automotive Award for this product.

VLP-32 (Ultra Puck) is the third generation of the Puck family. The high-density, long-range image generated by the Ultra Puck makes it an optimal solution for robotics, mapping, security, driver assistance and autonomous navigation. VLP-32 uses 32 lasers to double the range and resolution of its predecessor at a range of up to 200 meters. Ultra Puck also introduces firing exclusion and advanced features for minimizing false positives. The compact design is small and light enough to be placed below a car's side-view mirror and greatly reduces the cost of the system required for a fully-autonomous vehicle.

VLP-16 (Puck) is one of the most popular sensors on the market and offers 16 lasers and a 100 meter range. Developed with mass production and affordability in mind, the Puck retains the multi-laser design of our other sensors while offering lower power consumption, lighter weight and a more compact footprint at an attractive price point, making it ideal for low speed autonomy and driver assistance applications.

VLP-16 Hi-Res (Puck Hi-Res) is a further iteration of the original groundbreaking Puck and is designed for applications requiring high image resolution. While retaining surround view and 100 meter range, this sensor compresses the vertical field-of-view from 30 degrees to 20 degrees for a tighter laser distribution spaced at 1.33 degrees instead of 2.00 degrees. This design delivers more details in the 3D image at longer ranges and enables the host system to not only detect but also better identify objects at these greater distances. It is optimized for autonomous vehicle applications but will provide denser data and better object recognition in all its applications.

VLP-16 LITE (Puck LITE) is the world's lightest 16-laser lidar sensor at 590 grams and was designed expressly to address the exacting requirements of the UAV and aerial 3D mapping markets. Puck LITE achieves identical performance to the original Puck but reduces the sensor weight by almost 30 percent, critically enabling longer flight times. This lightweight, high-performance sensor retains 360-degree surround view to capture real-time 3D lidar data.

HDL-32E was released in response to demand for a more compact and lighter sensor and this second-generation 3D lidar solution extends the core 360-degree technology developed for the HDL-64E. The HDL-32E features 32 lasers aligned over a 40-degree vertical field-of-view, generates up to 1.39 million points per second and was the first 3D lidar technology to provide distance and intensity measurements across 100 meters with less than 2-centimeter accuracy. More compact and lighter weight than its predecessor, the HDL-32E measures 5.7 inches high by 3.4 inches wide, weighs less than 2 kilograms and is developed to meet stringent military and automotive environmental specifications.

HDL-64E was the world's first commercially available real-time 3D lidar, supporting 64 lasers, a 360-degree field-of-view and a 120 meter range. The HDL-64E is based on the first prototype invented by David Hall, our former director and CEO, and to date has been driven millions of miles on public roads across the United States. Designed for robust obstacle detection this sensor continues to enable safe navigation of ground vehicles, such as heavy trucks and autonomous fleets, in ports, and on marine vessels.

Solid State Lidar

Our solid state lidar technology combine the high reliability and long lifetime of traditional micro electro-mechanical systems ("MEMS") solutions while also providing longer sensing range.

Velarray M1600

Designed for autonomous applications in sidewalk, commercial and industrial settings, the Velarray M1600 provides outstanding near-field perception at a range of 0.1 to 30 meters for safe navigation in diverse environmental conditions. The Velarray M1600's optimal combination of data-rich resolution and broad field-of-view enables precise mapping and obstacle avoidance. With a durable design, this sensor is aesthetically well-suited for external mounting and easily embeddable in a robot's sensor compartment. The Velarray M1600 features our breakthrough micro-lidar array ("MLA") architecture, a robust and reliable design for mass production.

Velarray H800

With the Velarray H800, we deliver the optimal solid state lidar sensor for ADAS and autonomous applications. The H800's range – from .01 to 200 meters – combined with wide horizontal field of view ("FOV") detects objects early enough to enable safe stopping distances in urban driving scenarios and collision avoidance on curves and turns. Its excellent vertical FOV provides superior detection of near-range small and overhead objects, while covering corner use-cases including sloping roads. The H800's range enables advanced highway ADAS features such as Adaptive Cruise Control, Lane Keep Assist, and Automatic Emergency Braking. With a configurable frame rate, the H800 offers outstanding point cloud density for high resolution mapping and object classification tasks. Designed for automotive-grade performance and durability, this versatile sensor is ideal for a variety of internal and external mounting locations. The Velarray H800 also features our breakthrough MLA architecture.

Products under Development

The following products are under development and are not yet available for commercial shipment to customers. There are risks associated with developing and producing these new products. See Item 1A: "Risk Factors—Risks Related to Velodyne's Business—The markets in which Velodyne competes are characterized by rapid technological change, which requires it to continue to develop new products and product innovations, and could adversely affect market adoption of its products."

Solid State Lidar

Velabit will bring Velodyne's performance and design to an embedded solution that can be hidden around or inside the vehicle. Aimed at satisfying a growing set of price-sensitive applications, Velabit will retain 100 meter range and high precision while being packaged in our smallest form factor. The Velabit will be our lowest-priced sensor.

Dome Lidar

Our dome hybrid solid state architecture has an innovative optical design that provides a 180-degree, hemispherical view of the surrounding environment in an embeddable form factor to enable detection of objects in close proximity, such as pedestrians and bicyclists.

VelaDome will be a category-creating sensor specifically designed for high-resolution, short-range sensing. The VelaDome will offer 180-degree by 180-degree field-of-view and the ability to detect objects as close as 0.1 meter. The VelaDome's small form factor will fit for a variety of low profile mounting and styling options along the sides of an autonomous vehicle. This sensor's near-field detection and high-density image will make it an ideal solution for a range of close-proximity automotive applications, including blind-spot monitoring.

Software Solutions

Vella

As part of our mission to drive commercial adoption, we are also developing a full software ADAS solution built around lidar, which we refer to as Vella. The Vella software solution is designed to deliver a rich set of safety and autonomy applications to any vehicle that utilizes a Velarray lidar. For automotive applications, Vella interprets lidar point cloud data to perform obstacle detection and tracking for avoiding and mitigating crashes with dynamic and static objects, including vulnerable road users and vehicles. Through predictive collision monitoring, Vella compares an object's trajectory with that of the ego vehicle, in order to identify and avoid imminent crash scenarios.

We believe this will provide an opportunity for us to monetize our data assets, providing us with a potential new source of revenue through a data and software services model.

Customers, Sales and Distribution

We currently have, and are actively developing, several multi-year contracts for ADAS and autonomous vehicle programs. We work closely with major autonomous vehicle development programs around the world. In addition, companies across a wide range of non-automotive end markets are increasingly adopting our lidar-based technologies into their systems. Our customers deploy our smart vision technology in various applications across markets, including in autonomous vehicles, ADAS, UAVs, mapping, industrial automation, self-driving rovers, autonomous vessels, smart city initiatives and robotics. Additionally, we provide account management, product management, and technical support experts to form deep, collaborative relationships with strategic customer research and development organizations. These teams focus on assisting with rapid first installations, mass production supply agreements and post-sales support.

In 2020 and 2019, more than 300 customers, including distributors who sell our products to additional end customers, purchased lidar solutions from us. Approximately 200 of those customers were in non-automotive markets. In 2020 and 2019, two customers each accounted for more than 10% of our revenue. We define the number of customers as the number of customers for which we have received an order for one or more of our products. A single organization or customer may represent multiple customers due to separate divisions, segments or subsidiaries.

We have various multi-year agreements with customers, including non-automotive customers and automotive customers such as OEMs and system integrators. These agreements generally provide for one-year demand forecasts, with quarterly volumes and prices for the year. After the first year, we and the customer have the ability to evaluate need and price for subsequent forecasts. These agreements provide unit discounts for both volume commitments and marketing commitments. These multi-year agreements also provide terms and conditions of sale that are negotiated based on price and volume commitment. We are actively developing several such agreements with potential non-automotive and automotive customers.

We have built an extensive ecosystem in the markets we serve. We have distribution partners in Asia and Europe to address growing market opportunities in these regions and beyond. In North America, we sell directly to most of our customers as well as through three national distributors who are also our customers and integrators. We also sell our solutions through our customer service hubs around the world, such as Germany and China, where we maintain offices and staff.

Manufacturing

We have dedicated teams focused on manufacturing processes, such as those that include proprietary alignment and calibration techniques. Our teams leverage automation steps to lower manufacturing times, improve yield and position us and our manufacturing partners to produce at increasing scale as our customers' requirements increase. We expect to reduce our focus on in-house manufacturing and increasingly leverage the experience of our current and future manufacturing partners. Currently, our two key manufacturing partners are Nikon and Fabrinet. We plan to expand these manufacturing partnerships

in 2021 to include VLS-128 and Velarray by transferring these products currently manufactured in-house to Nikon and Fabrinet, respectively.

Industry and Competition

There is an increasing demand for lidar to help advance automated systems with the goal of increasing safety, improving efficiency and enhance productivity. Lidar's status as a critical sensor in many applications gives us the opportunity to add higher value to customers by providing comprehensive solutions. There is increasing adoption of lidar across a wide variety of industries, some of which are accelerating in a post-COVID world.

For the automotive industry, SAE International has published a taxonomy with detailed definitions for six levels of driving automation, ranging from no automation to full automation. To increase road safety and respond to regulatory requirements, we believe automotive manufacturers are proactively adopting ADAS technology. As industry participants develop active safety features, standards defining the increasing levels of sophistication in these features are required. We are working with SAE International and other major professional and standardization organizations to guide the relevant regulations that address public safety.

Additionally, we believe businesses are actively exploring the use of autonomous trucks, drones and robots to help create more efficient and less expensive delivery infrastructure to meet consumer demand for fast and cost-efficient delivery solutions. As a result, we believe there is a continual need for precise 3D mapping information to understand the surrounding environment and movement patterns to improve transportation logistics and enhance traffic efficiency.

The market for perception solutions for autonomous applications is an emerging market, with many potential applications in the development stage. As a result, we face competition from a range of companies seeking to have their products incorporated into these applications that are being developed and it may take a long period of time for our primary competitors to emerge. Our competitors are also working to advance technology, reliability, and innovation in their development of new and improved solutions. Although we believe that we have market leading technology, we continue to face competition from existing competitors and new companies emerging in the lidar, camera and radar industries. It is our belief that it will take most of these new smaller companies a substantial period of time to gain the recognition and trust of top-tier automotive OEMs, as well as customers and partners in other non-automotive industries. For example, we believe that we shipped more units in the fourth quarter of 2020 than all of our other competitors combined for the year. Many of our competitors offer products targeted for niche applications. Some competitors are currently selling products that offer lower levels of performance in ADAS and new markets. In the ADAS market, a number of competitors have already achieved substantial market share using camera and radar-based perception sensing solutions, although we believe we offer a higher performance product that empowers higher performance ADAS systems, which we believe have the potential to displace current offerings and increase our market share.

Market Opportunity

Our technology enables autonomy and can create new markets. Traditionally, many autonomous and 3D vision-based sensing applications were developed by utilizing non-lidar sensors; however, as the benefits of lidar-based solutions are becoming more widely recognized, we believe there are significant market opportunities available for our technology. As autonomous and 3D vision-based applications continue to grow more complex, we believe our technologies will become increasingly adopted due to our innovation, leadership, scale, and commercial readiness.

We expect demand in the automotive market to be driven by regulatory and customer demand for lidar solutions. Based on third party data, we estimate that the total market size for vehicles deploying autonomous technology will be approximately 29.0 million vehicles by 2022 and approximately 52.8 million vehicles by 2026. Generally, the number of lidar sensors to be deployed on each vehicle in the market depends on the level of autonomy and the type of lidar sensors utilized, which we expect to range from one to 12 sensors in 2022 and one to 13 sensors in 2026. We believe that in most cases that more lidar sensors, or at least lidar sensors with greater functionality, will be required as the level of autonomy increases towards full autonomy. In addition to the automotive market, we believe there are significant market opportunities available for our technology in the industrial, drones, autonomous mobile robots and 3D mapping end-markets that we are actively engaging with customers on. In addition, we believe that our market opportunity could be larger than what is currently estimated as there are early development and largely unexplored new and emerging applications, which we refer to as greenfield applications, such as traffic monitoring, pedestrian monitoring, security and natural disaster damage assessment.

Sales and Marketing

We continue expanding our sales and marketing efforts to attract new customers and grow orders from existing customers. We have developed a global network of active distributors to sell, install and support our solutions. Our channel partner ecosystem helps develop emerging applications for our lidar technology.

We have launched Automated with Velodyne program, our integrator ecosystem aimed to commercialize next generation autonomous solutions using our lidar technology. Through the program, we help companies by supporting innovation, promoting applications and creating lasting customer and business relationships. The program reflects our focus on accelerating market adoption of 3D lidar innovations and driving revenue growth for our partners around the world. In addition to a broad portfolio of groundbreaking, versatile lidar sensors, we provide technical, sales and distribution channel service and support. The program includes joint marketing activities to promote partner brands and customer success at trade shows, social and owned media channels, and more. There are over 75 companies in the Automated with Velodyne program. They have used our lidar technologies to build solutions in application areas that include ADAS, autonomous vehicles, mapping, industrial, smart city, drone/UAV, robotics and security.

Through our marketing efforts and strategic relationships we also continue to expand our global network of customers and channel partners. We are well known to global automotive OEMs, Tier 1 suppliers and customers using 3D lidar for non-automotive use cases, including mapping applications, UAVs, robotics, smart cities and industrial applications. These relationships allow us to continue to reach additional customers and partners globally. We also leverage opportunities to present and speak at conferences, executive events, trade shows and industry events to further develop our brand and reputation. These opportunities also allow us to showcase our technology and attract additional customer and channel partner interest. Through industry events and strategic relationships, we continue to identify the evolving needs of our customers and, as a result, develop new and improved solutions.

Research and Development

We have invested a significant amount of time and expense into research and development of lidar-based technologies. Our ability to maintain our leadership position depends in part on our ongoing research and development activities. Our research and development team is responsible for the design, development, manufacturing and testing of our products. We focus our efforts on development in the areas of novel lidar architecture, advanced product design, innovative manufacturing technologies and advanced algorithms. In addition, we are transitioning from field programmable gate arrays to application-specific integrated circuits (ASICs) in order to further improve performance of our products, lower costs and reduce reliance on any key suppliers.

Our research and development is largely conducted at our headquarters in San Jose, California. As of December 31, 2020, we had approximately 123 full time employees engaged in our research and development activities.

Intellectual Property

Our ability to be at the forefront of innovation in the lidar market depends in part on our ability to obtain and maintain patents and other proprietary rights relating to our key technology, and our ability to successfully enforce these rights against third parties. We currently have proprietary intellectual property, including in our embedded software, real-time 3D vision for autonomous systems, manufacturing processes and calibration methodology, which we believe is strongly protected by our registered patents. We have also filed patents and trademark applications in order to further secure these rights and strengthen our ability to defend against third parties who may infringe on our rights. We also protect our proprietary rights through agreements with our customers and channel partners.

As of December 31, 2020, we had 21 issued and 8 allowed U.S. patents and 41 pending U.S. patent applications. These issued patents begin expiring in 2027. We also have in the aggregate 158 issued non-U.S. patents, pending Patent Cooperation Treaty (PCT) applications and non-U.S. national stage applications corresponding to various U.S. patent applications described above.

The applications and issued patents cover a broad range of system level and component level aspects of lidar technology. We do not know whether any of our pending patent applications will result in the issuance of patents or whether the

examination process will require us to narrow our claims. Even if granted, there is no assurance that these pending patent applications will provide us with protection.

Government Regulation

We are subject to the requirements under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 that will require us to diligence, disclose and report whether our products contain conflict minerals. The implementation of these requirements could adversely affect the sourcing, availability and pricing of the materials used in the manufacture of components used in our products.

In addition, our operations are subject to various international, federal, state and local laws and regulations governing the occupational health and safety of our employees and wage regulations. We are subject to the requirements of the federal Occupational Safety and Health Act, as amended, (“OSHA”), and comparable international, state and local laws that protect and regulate employee health and safety.

At both the federal and state level, the U.S. has provided a positive legal environment to permit safe testing and development of autonomous functionality. We do not anticipate any near-term federal standards that would impede the foreseeable deployments of our lidar technology. Some states, however, particularly California and New York, still enforce certain operational or registration requirements for certain autonomous functions. We believe such hurdles will be removed as state regulators gain better experience with the technology. U.S. federal regulations, however, remain largely permissive of deployments of higher levels of safe and responsible autonomous functionality.

At the federal level in the U.S., the safety of the automotive industry is regulated by the U.S. Department of Transportation through two federal Agencies – the National Highway Traffic Safety Administration (the “NHTSA”) and the Federal Motor Carrier Safety Administration. NHTSA establishes the Federal Motor Vehicle Safety Standards (the “FMVSS”) for motor vehicles and motor vehicle equipment and oversees the actions that manufacturers of motor vehicles and motor vehicle equipment are required to take regarding the reporting of information related to defects or injuries related to their products and the recall and repair of vehicles and equipment that contain safety defects or fail to comply with the FMVSS.

As the cars that carry our sensors go into production, we are subject to existing stringent requirements under the National Traffic and Motor Vehicle Safety Act of 1966 (the “Vehicle Safety Act”), including a duty to report, subject to strict timing requirements overseen by NHTSA, safety defects with our products. The Vehicle Safety Act imposes potentially significant civil penalties for violations including the failure to comply with such reporting requirements. We are also subject to the existing U.S. Transportation Recall Enhancement, Accountability and Documentation Act (“TREAD”), which requires equipment manufacturers, such as us, to comply with “Early Warning” requirements by reporting certain information to the NHTSA, such as information related to defects or reports of injury related to our products. TREAD imposes criminal liability for violating such requirements if a defect subsequently causes death or bodily injury. In addition, the National Traffic and Motor Vehicle Safety Act authorizes NHTSA to require a manufacturer to recall and repair vehicles that contain safety defects or fail to comply with U.S. federal motor vehicle safety standards. Sales into foreign countries may be subject to similar regulations. As the development of federal and state regulation of autonomous machines and vehicles continues to evolve, we may be subject to additional regulatory schemes.

In addition, we are subject to the Electronic Product Radiation Control Provisions of the Federal Food, Drug, and Cosmetic Act. These requirements are enforced by the U.S. Food and Drug Administration (“FDA”). Electronic product radiation includes laser technology. Regulations governing these products are intended to protect the public from hazardous or unnecessary exposure. Manufacturers are required to certify in product labeling and reports to the FDA that their products comply with applicable performance standards as well as maintain manufacturing, testing, and distribution records for their products.

In order for us to operate in international markets outside the U.S., we may also be required to comply with relevant federal and foreign legal regulations regarding autonomous vehicles as well as technology export control, data security, cybersecurity, the International Traffic in Arms Regulation promulgated under the Arms Export Control Act (“ITAR”), the Foreign Corrupt Practices Act (“FCPA”), the anti-boycott provisions of the U.S. Export Administration Act and other related regulations that apply to global technology companies. We have developed compliance processes and procedures related to these regulatory requirements and believe that we are in compliance with such requirements. We do not believe there are any regulatory restrictions that would materially restrict our ability to operate in our key markets.

Human Capital Resources

As of December 31, 2020, we employed approximately 309 people. We also engage numerous consultants and contractors to supplement our permanent workforce. None of our employees are represented by a labor union or covered by collective bargaining agreements. We believe we have strong and positive relations with our employees. We are focused on aligning our valued human capital resources to our strategic priorities with a strong focus on leadership development, employee engagement and company culture. As part of our commitment to employee development, we make ongoing investments in our team, including hiring a Chief People Officer in October 2020 to lead our global human resources organization.

Our company culture is focused on honesty, integrity, dignity and respect, and our Code of Conduct is designed to help us achieve the right results, the right way. The code establishes high standards of honesty and integrity for all employees, officers and directors, and expects the same high standards of contractors, consultants, suppliers and agents. The specific policies set forth in the code help ensure that we conduct our business fairly and ethically in an environmentally responsible and sustainable manner.

Item 1A. Risk Factors

You should carefully consider the risks described below in addition to the other information set forth in this Annual Report on Form 10-K, including Item 7: Management's Discussion and Analysis of Financial Conditions and Results of Operations section and the consolidated financial statements and related notes. Our business, prospects, financial condition, operating results or the trading price of our securities could be harmed by any of these risks, as well as other risks not known to us or that we consider immaterial.

Summary of Principal Risk Factors

- Our business could be materially and adversely affected by the current global COVID-19 pandemic.
- Since many of the markets in which we compete are new and rapidly evolving, it is difficult to forecast long-term end-customer adoption rates and demand for our products.
- Despite the actions we are taking to defend and protect our intellectual property, we may not be able to adequately protect or enforce our intellectual property rights or prevent unauthorized parties from copying or reverse engineering our solutions. Our efforts to protect and enforce our intellectual property rights and prevent third parties from violating our rights may be costly.
- We continue to implement strategic initiatives designed to grow our business. These initiatives may prove more costly than anticipated and we may not succeed in increasing our revenue in an amount sufficient to offset the costs of these initiatives and to achieve and maintain profitability.
- Because our sales have been primarily to customers making purchases for research and development projects and our orders are project-based, we expect our results of operations to fluctuate on a quarterly and annual basis, which could cause our stock price to fluctuate or decline.
- Our transition to an outsourced manufacturing business model may not be successful, which could harm our ability to deliver products and recognize revenue.
- Adverse conditions in the automotive industry or the global economy more generally could have adverse effects on our results of operations.
- Although we believe that lidar is the industry standard for autonomous vehicles and other emerging markets, market adoption of lidar is uncertain. If market adoption of lidar does not continue to develop, or develops more slowly than we expect, our business will be adversely affected.
- Our investments in educating our customers and potential customers about the advantages of lidar and our applications may not result in sales of our products.
- We depend on our ability to attract and retain key management and technical personnel.

- We have identified material weaknesses in our internal control over financial reporting, and the failure to achieve and maintain effective internal control over financial reporting could harm our business and negatively impact the market price of our common stock.

Risks Related to Our Business

Our business could be materially and adversely affected by the current global COVID-19 pandemic.

The recent COVID-19 pandemic has disrupted and affected our business. For example, from March until June of 2020, due to the rapid spread of COVID-19, our manufacturing facility in San Jose, California was not able to operate at our full capacity. Additionally, we observed delayed customer purchases and longer sales cycles with customers that are addressing budget constraints, delayed projects or other hardships related to the COVID-19 pandemic. We have a global customer base operating in a wide range of industries that has been impacted in different ways by the pandemic. We also depend on suppliers and manufacturers worldwide. Depending upon the duration of the pandemic, the associated business interruptions and the recovery, our customers, suppliers, manufacturers and partners may suspend or delay their engagement with us. If the pandemic worsens, if the economic recovery is delayed or if there are further business interruptions or changes in customer purchasing behavior, our business, results of operations and ability to raise capital may be materially and adversely affected. Our response to the COVID-19 pandemic may prove to be inadequate and we may be unable to continue our operations in the manner it had prior to the outbreak, and may endure further interruptions, reputational harm, delays in our product development and shipments, all of which could have an adverse effect on our business, operating results, and financial condition. In addition, when the pandemic subsides, we cannot assure you as to the timing of any economic recovery, which could continue to have a material adverse effect on our target markets and our business.

Any projections we may provide about our business or expected future results may differ significantly from actual results.

From time to time we have shared our views in press releases or SEC filings, on public conference calls and in other contexts about current business conditions and our expectations as to our future results of operations, including projected revenues for years subsequent to 2020. Correctly identifying the key factors affecting business conditions and predicting future events is inherently an uncertain process. Given the complexity and volatility of our business, the impact of the recurring COVID-19 pandemic on our business and that of our customers and partners, uncertainty related to the transition of the United States government and overall global economic conditions, it is likely that our forecasts for periods subsequent to 2020 will prove to be incorrect. As a result of these uncertainties, we withdrew our previously announced financial guidance for 2021. We offer no assurance that such predictions or analysis will ultimately be accurate, and investors should treat any such predictions or analysis with appropriate caution. If any analysis or forecast that we make ultimately proves to be inaccurate, our stock price may be adversely affected.

Any financial projections we have provided, including projections related to our future revenues, reflect numerous qualitative estimates and assumptions including assumptions with respect to general business, economic, market, regulatory and financial conditions and various other factors, all of which are difficult to predict and many of which are beyond our control. The projections are not predictive of our actual future results and should not be construed as financial guidance for any future period. The projections should be read in conjunction with the accounting policies included in Note 1 to the accompanying consolidated financial statements included in this Annual Report on Form 10-K.

Since many of the markets in which we compete are new and rapidly evolving, it is difficult to forecast long-term end-customer adoption rates and demand for our products.

We are pursuing opportunities in markets that are undergoing rapid changes, including technological and regulatory changes, and it is difficult to predict the timing and size of the opportunities. For example, autonomous driving and lidar-based ADAS applications require complex technology. Because these automotive systems depend on technology from many companies, commercialization of autonomous driving or ADAS products could be delayed or impaired on account of certain technological components of Velodyne or others not being ready to be deployed in vehicles. Although some companies have released systems and vehicles using our products, others may not be able to commercialize this technology immediately, or at all. Regulatory, safety or reliability developments, many of which are outside of our control, could also cause delays or otherwise impair commercial adoption of these new technologies, which will adversely affect our growth. Our future financial performance will depend on our ability to make timely investments in the correct market opportunities. If one or more of these markets experience a shift in customer or prospective customer demand, our products may not compete as

effectively, if at all, and they may not be designed into commercialized products. Given the evolving nature of the markets in which we operate, it is difficult to predict customer demand or adoption rates for our products or the future growth of the markets in which we operate. As a result, the financial projections we have made or may in the future make necessarily reflect various estimates and assumptions that may not prove accurate. If demand does not develop or if we cannot accurately forecast customer demand, the size of our markets, inventory requirements or our future financial results, our business, results of operations and financial condition will be adversely affected.

We continue to implement strategic initiatives designed to grow our business. These initiatives may prove more costly than it currently anticipates and we may not succeed in increasing our revenue in an amount sufficient to offset the costs of these initiatives and to achieve and maintain profitability.

We continue to make investments and implement initiatives designed to grow our business, including:

- investing in research and development;
- expanding our sales and marketing efforts to attract new customers across industries;
- investing in new applications and markets for our products;
- further enhancing our manufacturing processes and partnerships;
- pursuing litigation to protect our intellectual property; and
- investing in legal, accounting, and other administrative functions necessary to support our operations as a public company.

These initiatives may prove more expensive than it currently anticipates, and we may not succeed in increasing our revenue, if at all, in an amount sufficient to offset these higher expenses and to achieve and maintain profitability. Although we generated net income of \$15.8 million for 2017, we have incurred net losses in the past, including net losses of \$149.9 million for 2020, \$67.2 million for 2019 and \$62.3 million for 2018. The market opportunities we are pursuing are at an early stage of development, and it may be many years before the end markets we expect to serve generate demand for our products at scale, if at all. Our revenue may be adversely affected for a number of reasons, including the development and/or market acceptance of new technology that competes with our lidar products, if certain automotive OEMs or other market participants change their autonomous vehicle technology, failure of our customers to commercialize autonomous systems that include our smart vision solutions, our inability to effectively manage our inventory or manufacture products at scale, our inability to enter new markets or help our customers adapt our products for new applications or our failure to attract new customers or expand orders from existing customers or increasing competition. Furthermore, it is difficult to predict the size and growth rate of our target markets, customer demand for our products, commercialization timelines, developments in autonomous sensing and related technology, the entry of competitive products, or the success of existing competitive products and services. For these reasons, we do not expect to achieve profitability over the near term. If our revenue does not grow over the long term, our ability to achieve and maintain profitability may be adversely affected, and the value of our business may significantly decrease.

Because our sales have been primarily to customers making purchases for research and development projects and our orders are project-based, we expect our results of operations to fluctuate on a quarterly and annual basis, which could cause our stock price to fluctuate or decline.

Our quarterly results of operations have fluctuated in the past and may vary significantly in the future, and our revenue has declined in three consecutive years. As such, historical comparisons of our operating results may not be meaningful. In particular, because our sales to date have primarily been to customers making purchases for research and development, sales in any given quarter can fluctuate based on the timing and success of our customers' development projects. Accordingly, the results of any one quarter should not be relied upon as an indication of future performance. Our quarterly financial results may fluctuate as a result of a variety of factors, many of which are outside of our control and may not fully reflect the underlying performance of our business. These fluctuations could adversely affect our ability to meet our expectations or those of securities analysts or investors. If we do not meet these expectations for any period, the value of our business and our stock price could fluctuate or decline significantly. Factors that may cause these quarterly fluctuations include, without limitation, those listed below:

- The timing and magnitude of orders and shipments of our products in any quarter.

- Pricing changes we may adopt to drive market adoption or in response to competitive pressure.
- Our ability to retain our existing customers and attract new customers.
- Our ability to develop, introduce, manufacture and ship in a timely manner products that meet customer requirements.
- Disruptions in our sales channels or termination of our relationship with important channel partners.
- Delays in customers' purchasing cycles or deferments of customers' purchases in anticipation of new products or updates from us or our competitors.
- Fluctuations in demand pressures for our products.
- The mix of products sold in any quarter.
- The duration of the global COVID-19 pandemic and the time it takes for economic recovery.
- The timing and rate of broader market adoption of autonomous systems utilizing our smart vision solutions across the automotive and other market sectors.
- Market acceptance of lidar and further technological advancements by our competitors and other market participants.
- The ability of our customers to commercialize systems that incorporate our products.
- Any change in the competitive dynamics of our markets, including consolidation of competitors, regulatory developments and new market entrants.
- Our ability to effectively manage our inventory.
- Changes in the source, cost, availability of and regulations pertaining to materials we use.
- Adverse litigation, judgments, settlements or other litigation-related costs, or claims that may give rise to such costs.
- General economic, industry and market conditions, including trade disputes.

Our transition to an outsourced manufacturing business model may not be successful, which could harm our ability to deliver products and recognize revenue.

We are transitioning from a manufacturing model in which we primarily manufactured and assembled our products at our California location, to one where we rely on third-party manufacturers in Europe and Asia. We currently have agreements with Fabrinet, Nikon and Veoneer to provide contract manufacturing of certain of our products. We believe the use of third-party manufacturers will have benefits, but in the near term, while we are beginning manufacturing with new partners, we may lose revenue, incur increased costs and harm our customer relationships.

Reliance on third-party manufacturers reduces our control over the manufacturing process, including reduced control over quality, product costs and product supply and timing. We may experience delays in shipments or issues concerning product quality from our third-party manufacturers. If any of our third-party manufacturers experience interruptions, delays or disruptions in supplying our products, including by natural disasters, the global COVID-19 pandemic or work stoppages or capacity constraints, our ability to ship products to distributors and customers would be delayed. The COVID-19 pandemic has caused interruptions in our manufacturing operations and production delays. For example, our personnel have not been able to travel to Thailand to meet with a key manufacturing partner. Additionally, if any of our third-party manufacturers experience quality control problems in their manufacturing operations and our products do not meet customer or regulatory requirements, we could be required to cover the cost of repair or replacement of any defective products. These delays or product quality issues could have an immediate and material adverse effect on our ability to fulfill orders and could have a negative effect on our operating results. In addition, such delays or issues with product quality could adversely affect our reputation and our relationship with our channel partners. If third-party manufacturers experience financial, operational, manufacturing capacity or other difficulties, or experience shortages in required components, or if they are otherwise unable or unwilling to continue to manufacture our products in required volumes or at all, our supply may be disrupted, we may be required to seek alternate manufacturers and we may be required to re-design our products. It would be time-consuming, and could be costly and impracticable, to begin to use new manufacturers and designs and such changes could cause significant interruptions in supply and could have an adverse effect on our ability to meet our scheduled product deliveries and may subsequently lead to the loss of sales. While we take measures to protect our trade secrets, the use of third-party

manufacturers may also risk disclosure of our innovative and proprietary manufacturing methodologies, which could adversely affect our business.

In addition, we currently rely on third-party manufacturers to produce our custom ASICs. We have made considerable investments to develop our proprietary ASICs and our smart vision solutions depend on them. If third-party manufacturers of our custom ASICs experience interruptions, delays or disruptions in supplying our ASICs or if there are work stoppages, production delays or facility closures due to the COVID-19 pandemic, our ability to ship our smart vision solutions will be delayed and we may be unable to meet customer demand. Our ASICs may have defects or other issues if our third-party manufacturers have quality control or other problems in their operations. These defects may delay our ability to fulfill customer orders, which would have a negative effect on our brand and operating results. If we need to change manufacturers of our ASICs for any reason, we cannot guarantee that we will be able to find a replacement manufacturer willing to produce our custom ASICs at a price it deems appropriate, or at all.

Adverse conditions in the automotive industry or the global economy more generally could have adverse effects on our results of operations.

While we make our strategic planning decisions based on the assumption that the markets we are targeting will grow, our business is dependent, in large part on, and directly affected by, business cycles and other factors affecting the global automobile industry and global economy generally. Automotive production and sales are highly cyclical and depend on general economic conditions and other factors, including consumer spending and preferences, changes in interest rates and credit availability, consumer confidence, fuel costs, fuel availability, environmental impact, governmental incentives and regulatory requirements, and political volatility, especially in energy-producing countries and growth markets. In addition, automotive production and sales can be affected by our automotive OEM customers' ability to continue operating in response to challenging economic conditions and in response to labor relations issues, regulatory requirements, trade agreements and other factors. The volume of automotive production in North America, Europe and the rest of the world has fluctuated, sometimes significantly, from year to year, and we expect such fluctuations to give rise to fluctuations in the demand for our products. Any significant adverse change in any of these factors may result in a reduction in automotive sales and production by our automotive OEM customers and could have a material adverse effect on our business, results of operations and financial condition.

Although we believe that lidar is the industry standard for autonomous vehicles and other emerging markets, market adoption of lidar is uncertain. If market adoption of lidar does not continue to develop, or develops more slowly than we expect, our business will be adversely affected.

While our lidar-based smart vision solutions can be applied to different use cases across end markets, approximately 57% and 45% of our revenue during 2020 and 2019, respectively, was generated from automotive applications. Despite the fact that the automotive industry has engaged in considerable effort to research and test lidar products for ADAS and autonomous driving applications, the automotive industry may not introduce lidar products in commercially available vehicles. We continually study emerging and competing sensing technologies and methodologies and we may add new sensing technologies such as radar and cameras to our offering to, for example, address lidar's relative deficiencies in detecting colors and low reflectivity objects and performing in extreme weather conditions. However, lidar products remain relatively new and it is possible that other sensing modalities, or a new disruptive modality based on new or existing technology, including a combination of technology, will achieve acceptance or leadership in the ADAS and autonomous driving industries. Even if lidar products are used in initial generations of autonomous driving technology and certain ADAS products, we cannot guarantee that lidar products will be designed into or included in subsequent generations of such commercialized technology. In addition, we expect that initial generations of autonomous vehicles will be focused on limited applications, such as robo-taxis, and that mass market adoption of autonomous technology may lag behind these initial applications significantly. The speed of market growth for ADAS or autonomous vehicles is difficult if not impossible to predict, and it is more difficult to predict this market's future growth in light of the economic consequences of the COVID-19 pandemic. Although it currently believes it has the lead in lidar-based systems for the autonomous market, by the time mass market adoption of autonomous vehicle technology is achieved, we expect competition among providers of sensing technology based on lidar and other modalities to increase substantially. If commercialization of lidar products is not successful, or not as successful as we or the market expects, or if other sensing modalities gain acceptance by developers of autonomous driving systems or ADAS, automotive OEMs, regulators and safety organizations or other market participants by the time autonomous vehicle technology achieves mass market adoption, our business, results of operations and financial condition will be materially and adversely affected.

We are investing in and pursuing market opportunities outside of the automotive markets, including in UAVs, self-driving rovers, industrial and security robots, mapping applications for topography and surveying and smart city initiatives. We believe that our future revenue growth, if any, will depend in part on our ability to expand within new markets such as these and to enter new markets as they emerge. Each of these markets presents distinct risks and, in many cases, requires us to address the particular requirements of that market.

Addressing these requirements can be time-consuming and costly. The market for lidar technology outside of automotive applications is relatively new, rapidly developing and unproven in many markets or industries. Many of our customers outside of the automotive industry are still in the testing and development phases and it cannot be certain that they will commercialize products or systems with our lidar products or at all. We cannot be certain that lidar will be sold into these markets, or any market outside of automotive market, at scale. Adoption of lidar products, including our products, outside of the automotive industry will depend on numerous factors, including: whether the technological capabilities of lidar and lidar-based products meet users' current or anticipated needs, whether the benefits of designing lidar into larger sensing systems outweigh the costs, complexity and time needed to deploy such technology or replace or modify existing systems that may have used other modalities such as cameras and radar, whether users in other applications can move beyond the testing and development phases and proceed to commercializing systems supported by lidar technology and whether lidar developers such as Velodyne can keep pace with rapid technological change in certain developing markets and the global response to the COVID-19 pandemic and the length of any associated work stoppages. If lidar technology does not achieve commercial success outside of the automotive industry, or if the market develops at a pace slower than we expect, our business, results of operation and financial condition will be materially and adversely affected.

Our investments in educating our customers and potential customers about the advantages of lidar and our applications may not result in sales of our products.

Educating our prospective customers, and to a lesser extent, our existing customers, about lidar, our advantages over other sensing technologies and lidar's ability to convey value in different industries and deployments is an integral part of developing new business and the lidar market generally. If prospective customers have a negative perception of, or experience with, lidar or a competitor's lidar products they may be reluctant to adopt lidar in general or specifically our products. Adverse statements about lidar by influential market participants may also deter adoption. Some of our competitors have significant financial or marketing resources that may allow them to engage in public marketing campaigns about their alternative technology, lidar or our solutions. Our efforts to educate potential customers and the market generally and to counter any adverse statements made by competitors or other market participants will require significant financial and personnel resources. These educational efforts may not be successful and we may not offset the costs of such efforts with revenue from the new customers. If we are unable to acquire new customers to offset these expenses or if the market accepts such adverse statements, our financial condition will be adversely affected.

The markets in which we compete are characterized by rapid technological change, which requires us to continue to develop new products and product innovations, and could adversely affect market adoption of our products.

While we intend to invest substantial resources to remain on the forefront of technological development, continuing technological changes in sensing technology, lidar and the markets for these products, including the ADAS and autonomous driving industries, could adversely affect adoption of lidar and/or our products, either generally or for particular applications. Our future success will depend upon our ability to develop and introduce a variety of new capabilities and innovations to our existing product offerings, as well as introduce a variety of new product offerings, to address the changing needs of the markets in which we offer our products. For example, we are currently working on developing our Vella software, which is a data curation software platform, as well as several other new lidar products. We cannot guarantee that the Vella software or the new products will be released in a timely manner, or at all, or achieve market acceptance. For example, in 2019 we experienced delays in acceptance of certain of our new lidar products as it worked with our customers to identify, define and meet product requirements, and we may be unable to sell these or future products at scale until these issues are resolved. Delays in delivering new products that meet customer requirements could damage our relationships with customers and lead them to seek alternative sources of supply. In addition, our success to date has been based on the delivery of our smart vision solutions to research and development programs in which developers are investing substantial capital to develop new systems. Our continued success relies on the success of the research and development phase of these customers as they expand into commercialized projects. While some customers already have achieved commercialization, most of our automotive customers are just beginning on the path to commercialization. As autonomous technology reaches the stage of large scale commercialization we will be required to develop and deliver smart vision solutions at price points that enable wider and ultimately mass-market adoption. Delays in introducing products and innovations, the failure to choose correctly

among technical alternatives or the failure to offer innovative products or configurations at competitive prices may cause existing and potential customers to purchase our competitors' products or turn to alternative sensing technology.

If we are unable to devote adequate resources to develop products or cannot otherwise successfully develop products or system configurations that meet customer requirements on a timely basis or that remain competitive with technological alternatives, our products could lose market share, our revenue will decline, we may experience operating losses and our business and prospects will be adversely affected.

We operate in a highly competitive market and some market participants have substantially greater resources. We compete against a large number of both established competitors and new market entrants.

The markets for sensing technology applicable to autonomous and other solutions across numerous industries are highly competitive. Our future success will depend on our ability to maintain our lead by continuing to develop and protect from infringement advanced lidar technology in a timely manner and to stay ahead of existing and new competitors. Our competitors are numerous and they compete with us directly by offering lidar products and indirectly by attempting to solve some of the same challenges with different technology. We face competition from camera and radar companies, other developers of lidar products, Tier 1 suppliers and other technology and automotive supply companies, some of which have significantly greater resources than we do. Some examples of our competitors include DENSO Corporation, Hesai, Ibeo Automotive Systems, LeddarTech, Innoviz, Luminar, Quanergy, Magna International, Valeo SA, Bosch, Continental and ZF Friedrichshafen AG. In the automotive market, our competitors have commercialized non-lidar-based ADAS technology which has achieved market adoption, strong brand recognition and may continue to improve. Other competitors are working towards commercializing autonomous driving technology and either by themselves, or with a publicly announced partner, have substantial financial, marketing, research and development and other resources. Some of our customers in the autonomous vehicle and ADAS markets have announced development efforts or made acquisitions directed at creating their own lidar-based or other sensing technologies, which would compete with our smart vision solutions. We do not know how close these competitors are to commercializing autonomous driving systems or novel ADAS applications. In markets outside of the automotive industry, our competitors, like Velodyne, seek to develop new sensing applications across industries. Even in these emerging markets, we face substantial competition from numerous competitors seeking to prove the value of their technology. Additionally, increased competition may result in pricing pressure and reduced margins and may impede our ability to increase the sales of our products or cause it to lose market share, any of which will adversely affect our business, results of operations and financial condition.

We expect to incur substantial research and development costs and devote significant resources to identifying and commercializing new products, which could significantly reduce our profitability and may never result in revenue to us.

Our future growth depends on penetrating new markets, adapting existing products to new applications and customer requirements, and introducing new products that achieve market acceptance. We plan to incur substantial and potentially increasing, research and development costs as part of our efforts to design, develop, manufacture and commercialize new products and enhance existing products. Our research and development expenses were \$88.1 million, \$56.9 million and \$52.0 million during 2020, 2019 and 2018, respectively and are likely to grow in the future. Because we account for research and development as an operating expense, these expenditures will adversely affect our results to operations in the future. Further, our research and development program may not produce successful results, and our new products may not achieve market acceptance, create additional revenue or become profitable.

The completion of the Business Combination did not automatically result in the satisfaction of the liquidity event vesting condition applicable to our outstanding restricted stock units ("RSUs") and restricted stock awards ("RSAs"). When the liquidity event vesting condition is or will be waived by the board of directors following the completion of the Business Combination and at that time we are or will be required to record a significant stock-based compensation expense.

Prior to the Business Combination, compensation expense related to RSAs and RSUs granted under the pre-combination our stock incentive plans remained unrecognized because the performance vesting condition, which is (i) an initial public offering, or (ii) a Company sale event, was not probable of being met. As a result of the Business Combination, on October 30, 2020, the Velodyne board of directors (the "Board") waived the liquidity event vesting condition applicable to the pre-combination Velodyne's RSUs. Therefore, our outstanding RSUs vested to the extent the applicable service condition was satisfied as of such date. The vesting of these outstanding RSUs on October 30, 2020 resulted in approximately \$77.5 million of incremental stock-based compensation expense in the fourth quarter of 2020. It is anticipated that the Board will waive the liquidity event condition applicable to the RSAs in 2021. If such determination were to occur with respect to the

outstanding RSAs, it is expected that the vesting of such outstanding RSAs would result in significant incremental stock-based compensation expense in the quarter when the determination is made based on the closing price of our common stock as of such date.

As part of growing our business, we may make acquisitions. If we fail to successfully select, execute or integrate our acquisitions, then our business, results of operations and financial condition could be materially adversely affected and our stock price could decline.

From time to time, we may undertake acquisitions to add new products and technologies, acquire talent, gain new sales channels or enter into new markets or sales territories. Acquisitions involve numerous risks and challenges, including relating to the successful integration of the acquired business and our key personnel, entering into new territories or markets with which we have limited or no prior experience, establishing or maintaining business relationships with new customers, channel partners, vendors and suppliers, unexpected liabilities and potential post-closing disputes.

To date, we have limited experience with acquisitions and the integration of acquired technology and personnel. Failure to successfully identify, complete, manage and integrate acquisitions could materially and adversely affect our business, financial condition and results of operations and could cause our stock price to decline.

We may need to raise additional capital in the future in order to execute our business plan, which may not be available on terms acceptable to us, or at all.

In the future, we may require additional capital to respond to technological advancements, competitive dynamics or technologies, customer demands, business opportunities, challenges, acquisitions or unforeseen circumstances and we may determine to engage in equity or debt financings or enter into credit facilities for other reasons. In order to further business relationships with current or potential customers or partners, we may issue equity or equity-linked securities to such current or potential customers or partners. We may not be able to timely secure additional debt or equity financing on favorable terms, or at all. If we raise additional funds through the issuance of equity or convertible debt or other equity-linked securities or if it issues equity or equity-linked securities to current or potential customers to further business relationships, our existing stockholders could experience significant dilution. Any debt financing obtained by us in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. If we are unable to obtain adequate financing or financing on terms satisfactory to us, when we require it, our ability to continue to grow or support our business and to respond to business challenges could be significantly limited.

We currently have and target many customers that are large corporations with substantial negotiating power, exacting product standards and potentially competitive internal solutions. If we are unable to sell our products to these customers, our prospects and results of operations will be adversely affected.

Many of our customers and potential customers are large, multinational corporations with substantial negotiating power relative to us and, in some instances, may have internal solutions that are competitive to our products. These large, multinational corporations also have significant development resources, which may allow them to acquire or develop independently, or in partnership with others, competitive technologies. Meeting the technical requirements and securing design wins with any of these companies will require a substantial investment of our time and resources. We cannot assure you that our products will secure design wins from these or other companies or that we will generate meaningful revenue from the sales of our products to these key potential customers. If our products are not selected by these large corporations or if these corporations develop or acquire competitive technology, it will have an adverse effect on our business.

If our lidar products are not selected for inclusion in autonomous driving systems or ADAS by automotive OEMs or their suppliers, our business will be materially and adversely affected.

Automotive OEMs and their suppliers design and develop autonomous driving and ADAS technology over several years. These automotive OEMs and suppliers undertake extensive testing or qualification processes prior to placing orders for large quantities of products because our lidar products will function as part of a larger system or platform and must meet certain other specifications. We spend significant time and resources to have our products selected by automotive OEMs and their suppliers, which is known as a design win. In the case of autonomous driving and ADAS technology, a design win means our lidar product has been selected for use in a particular vehicle model. If we do not achieve a design win with respect to a particular vehicle model, we may not have an opportunity to supply our products to the automotive OEM for that vehicle.

model for a period of many years. In many cases, this period can be as long as five to seven or more years. If our products are not selected by an automotive OEM or our suppliers for one vehicle model or if our products are not successful in that vehicle model, it is unlikely that our product will be deployed in other vehicle models of that OEM. If we fail to win a significant number of vehicle models from one or more of automotive OEMs or their suppliers, our business, results of operations and financial condition will be materially and adversely affected.

The discontinuation, lack of commercial success, or loss of business with respect to a particular vehicle model or technology package for which we are a significant supplier could reduce our sales and adversely affect our profitability.

If we are able to secure design wins and our smart vision solutions are included in these autonomous driving and ADAS products, we expect to enter into supply agreements with the relevant customer. Market practice dictates that these supply agreements typically require us to supply a customer's requirements for a particular vehicle model or autonomous driving or ADAS product, rather than supply a set number of products. These contracts can have short terms and/or can be subject to renegotiation, sometimes as frequently as annually, all of which may affect product pricing, and may be terminated by our customers at any time. Therefore, even if we are successful in obtaining design wins and the systems into which our products are built are commercialized, the discontinuation of, the loss of business with respect to, or a lack of commercial success of a particular vehicle model or technology package for which we are a significant supplier could mean that the expected sales of our products will not materialize, materially and adversely affecting our business.

Continued pricing pressures, automotive OEM cost reduction initiatives and the ability of automotive OEMs to re-source or cancel vehicle or technology programs may result in lower than anticipated margins, or losses, which may adversely affect our business.

Cost-cutting initiatives adopted by our customers often result in increased downward pressure on pricing. We expect that our agreements with automotive OEMs may require step-downs in pricing over the term of the agreement or, if commercialized, over the period of production. In addition, our automotive OEM customers often reserve the right to terminate their supply contracts for convenience, which enhances their ability to obtain price reductions. Automotive OEMs also possess significant leverage over their suppliers, including us, because the automotive component supply industry is highly competitive, serves a limited number of customers and has a high fixed cost base. Accordingly, we expect to be subject to substantial continuing pressure from automotive OEMs and Tier 1 suppliers to reduce the price of our products. It is possible that pricing pressures beyond our expectations could intensify as automotive OEMs pursue restructuring, consolidation and cost-cutting initiatives. If we are unable to generate sufficient production cost savings in the future to offset price reductions, our gross margin and profitability would be adversely affected.

Our business could be materially and adversely affected if we lost any of our largest customers or if they were unable to pay their invoices.

Although we have and continue to pursue a broad customer base, we are dependent on a collection of large customers with strong purchasing power. In 2020, 2019 and 2018, our top 20 customers represented 81%, 83% and 82% of our revenue, respectively. In 2020, 2019 and 2018, there were two customers each accounted for more than 10% of our revenue. The loss of business from any of our major customers (whether by lower overall demand for our products, cancellation of existing contracts or product orders or the failure to design in our products or award us new business) could have a material adverse effect on our business.

To the extent autonomous vehicle and ADAS systems become accepted by major automotive OEMs, we expect that we will rely increasingly for our revenue on Tier 1 suppliers through which automotive OEMs procure components. We expect that these Tier 1 suppliers will be responsible for certain hardpoint and software configuration activities specific to each OEM, and they may not exclusively carry our smart vision solutions.

There is also a risk that one or more of our major customers could be unable to pay our invoices as they become due or that a customer will simply refuse to make such payments if it experiences financial difficulties. If a major customer were to enter into bankruptcy proceedings or similar proceedings whereby contractual commitments are subject to stay of execution and the possibility of legal or other modification, we could be forced to record a substantial loss.

The period of time from a design win to implementation is long and we are subject to the risks of cancellation or postponement of the contract or unsuccessful implementation.

Prospective customers, including those in the automotive industry, generally must make significant commitments of resources to test and validate our products and confirm that they can integrate with other technologies before including them in any particular system, product or model. The development cycles of our products with new customers varies widely depending on the application, market, customer and the complexity of the product. In the automotive market, for example, this development cycle can be five to seven or more years. The development cycle in certain other markets can be months to one or two years. These development cycles result in us investing our resources prior to realizing any revenue from the commercialization. Further, we are subject to the risk that customers cancel or postpone implementation of our technology, as well as that we will not be able to integrate our technology successfully into a larger system with other sensing modalities. Further, our revenue could be less than forecasted if the system, product or vehicle model that includes our lidar products is unsuccessful, including for reasons unrelated to our technology. Long development cycles and product cancellations or postponements may adversely affect our business, results of operations and financial condition.

We depend on our ability to attract and retain key management and technical personnel.

For our business to be successful, we need to attract and retain highly qualified key management and technical personnel. Competition for highly-skilled personnel is often intense, especially in the San Francisco Bay Area where we are located, and we may incur significant costs to attract them. We had in the past been dependent on David Hall, our former executive chairman. Mr. Hall resigned as executive chairman in January 2021 and as a member of our Board of Directors in March 2021. We have been expanding our management team as well as other key areas of our business, including product development. The resignation of Mr. Hall could adversely affect our business as it might make it more difficult to, among other things, compete with other market participants, manage our research and development activities and retain existing customers or cultivate new ones. Furthermore, subsequent to the removal of Mr. Hall as the chair of our Board of Directors and these resignations, Mr. Hall has made statements to the press in a Schedule 13D. This publicity could make it more difficult for us to attract and retain key personnel. We also may not be successful in attracting, integrating, or retaining qualified personnel to fulfill our current or future needs. We have, from time to time, experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled employees with appropriate qualifications. In addition, job candidates and existing employees often consider the value of the equity awards they receive in connection with their employment. If the perceived value of our equity is not higher than other companies with which we compete for employees, it may adversely affect our ability to retain highly skilled employees. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects could be adversely affected.

The complexity of our products could result in unforeseen delays or expenses from undetected defects, errors or bugs in hardware or software which could reduce the market adoption of our new products, damage our reputation with current or prospective customers, result in product returns or expose us to product liability and other claims and adversely affect our operating costs.

Our products are highly technical and very complex and require high standards to manufacture. These products have in the past and will likely in the future experience defects, errors or bugs at various stages of development. We may be unable to timely release new products, manufacture existing products, correct problems that have arisen or correct such problems to our customers' satisfaction. Additionally, undetected errors, defects or security vulnerabilities, especially as new products are introduced or as new versions are released, could result in serious injury to the end users of technology incorporating our products, or those in the surrounding area; our customers never being able to commercialize technology incorporating our products; litigation against us; negative publicity and other consequences. These risks are particularly prevalent in the highly competitive autonomous driving and ADAS markets. Some errors or defects in our products may only be discovered after they have been tested, commercialized and deployed by customers. If that is the case, we may incur significant additional development costs and product recall, repair or replacement costs. Furthermore, we could also experience higher levels of product returns in such cases, which could adversely affect our financial results in a particular quarter. These problems may also result in claims against us by our customers or others. Our reputation or brand may be damaged as a result of these problems and customers may be reluctant to buy our products, which could adversely affect our ability to retain existing customers and attract new customers, and could adversely affect our financial results.

In addition, we could face material legal claims for breach of contract, product liability, tort or breach of warranty as a result of these problems. Defending a lawsuit, regardless of its merit, could be costly and may divert management's attention and adversely affect the market's perception of Velodyne and our products. In addition, our business liability insurance coverage could prove inadequate with respect to a claim and future coverage may be unavailable on acceptable terms or at all. These product-related issues could result in claims against us and our business could be adversely affected.

If we do not maintain sufficient inventory or if we do not adequately manage our inventory, we could lose sales or incur higher inventory-related expenses, which could negatively affect our operating results.

To ensure adequate inventory supply, we must forecast inventory needs and expenses, place orders sufficiently in advance with our suppliers and manufacturing partners and manufacture products based on our estimates of future demand for particular products. Fluctuations in the adoption of lidar products may affect our ability to forecast our future operating results, including revenue, gross margins, cash flows and profitability. Our ability to accurately forecast demand for our products could be affected by many factors, including the rapidly changing nature of the markets in which we operate, including the autonomous driving, ADAS and mapping markets, the uncertainty surrounding the market acceptance and commercialization of lidar technology, the emergence of new markets, an increase or decrease in customer demand for our products or for products and services of our competitors, product introductions by competitors, the COVID-19 pandemic and any associated work stoppages or interruptions, unanticipated changes in general market conditions and the weakening of economic conditions or consumer confidence in future economic conditions. If our lidar products are commercialized in autonomous driving, ADAS or other applications experiencing rapid growth in demand, we may face challenges acquiring adequate supplies to manufacture our products and/or we and our manufacturing partners may not be able to manufacture our products at a rate necessary to satisfy the levels of demand, which would negatively affect our revenue. This risk may be exacerbated by the fact that we may not carry or be able to obtain for our manufacturers a significant amount of inventory to satisfy short-term demand increases. If we fail to accurately forecast customer demand, we may experience excess inventory levels or a shortage of products available for sale.

Inventory levels in excess of customer demand may result in inventory write-downs or write-offs and the sale of excess inventory at discounted prices, which would adversely affect our financial results, including our gross margin, and have a negative effect on our brand. Conversely, if we underestimate customer demand for our products, we, or our manufacturing partners, may not be able to deliver products to meet our requirements, and this could result in damage to our brand and customer relationships and adversely affect our revenue and operating results.

We rely on third-party suppliers and because some of the raw materials and key components in our products come from limited or sole sources of supply, we are susceptible to supply shortages, long lead times for components, and supply changes, any of which could disrupt our supply chain and could delay deliveries of our products to customers.

All of the components that go into the manufacture of our smart vision solutions are sourced from third-party suppliers. To date, we have produced our products in relatively limited quantities for use in research and development programs. We do not have any experience in managing our supply chain to manufacture and deliver our products at scale. Some of the key components used to manufacture our products come from limited or sole sources of supply. We are therefore subject to the risk of shortages and long lead times in the supply of these components and the risk that our suppliers discontinue or modify components used in our products. We have a global supply chain and the COVID-19 pandemic may adversely affect our ability to source components in a timely or cost effective manner from our third-party suppliers due to, among other things, work stoppages or interruptions. For example, our products depend on lasers and we currently consume a substantial portion of the available market. Any shortage of these lasers could materially and adversely affect our ability to manufacture our smart vision solutions. In addition, the lead times associated with certain components are lengthy and preclude rapid changes in quantities and delivery schedules. We have in the past experienced and may in the future experience component shortages and price fluctuations of certain key components and materials, and the predictability of the availability and pricing of these components may be limited. Component shortages or pricing fluctuations could be material in the future. In the event of a component shortage, supply interruption or material pricing change from suppliers of these components, we may not be able to develop alternate sources in a timely manner or at all in the case of sole or limited sources. Developing alternate sources of supply for these components may be time-consuming, difficult, and costly and we may not be able to source these components on terms that are acceptable to us, or at all, which may undermine our ability to meet our requirements or to fill customer orders in a timely manner. Any interruption or delay in the supply of any of these parts or components, or the inability to obtain these parts or components from alternate sources at acceptable prices and within a reasonable amount of time, would adversely affect our ability to meet our scheduled product deliveries to our customers. This could adversely affect our relationships with our customers and channel partners and could cause delays in shipment of our products and adversely affect our operating results. In addition, increased component costs could result in lower gross margins. Even where we are able to pass increased component costs along to our customers, there may be a lapse of time before we are able to do so such that we must absorb the increased cost. If we are unable to buy these components in quantities sufficient to meet our requirements on a timely basis, we will not be able to deliver products to our customers, which may result in such customers using competitive products instead of Velodyne's.

The average selling prices of our products could decrease rapidly over the life of the product, which may negatively affect our revenue and gross margin.

In the past we have substantially reduced the price of certain of our products to accelerate market adoption and solidify our position as a market leader. We expect the average selling prices of our products generally to continue to decline as our customers seek to commercialize autonomous systems at prices low enough to achieve market acceptance. In order to sell products that have a falling average unit selling price and maintain margins at the same time, we will need to continually reduce product and manufacturing costs. To manage manufacturing costs, we must engineer the most cost-effective design for our products. In addition, we continuously drive initiatives to reduce labor cost, improve worker efficiency, reduce the cost of materials, use fewer materials and further lower overall product costs by carefully managing component prices, inventory and shipping cost.

We also need to continually introduce new products with higher sales prices and gross margin in order to maintain our overall gross margin. If we are unable to manage the cost of older products or successfully introduce new products with higher gross margin, our revenue and overall gross margin would likely decline.

Changes in our product mix may impact our financial performance.

Our financial performance can be affected by the mix of products it sells during a given period. If our sales include more of the lower gross margin products than higher gross margin products, our results of operations and financial condition may be adversely affected. There can be no guarantees that we will be able to successfully alter our product mix so that we are selling more of our high gross margin products. If actual results vary from this projected product mix of sales, our results of operations and financial condition could be adversely affected.

Our management team has limited experience managing a public company.

Most of the members of our management team have limited experience managing a publicly-traded company, interacting with public company investors, and complying with the increasingly-complex laws pertaining to public companies. Additionally, many members of our management team were recently hired or assumed new roles, including our chief executive officer, Dr. Anand Gopalan, who was promoted from chief technology officer in January 2020. Our management team may not successfully or efficiently manage their new roles and responsibilities, our transition to being a public company subject to significant regulatory oversight and reporting obligations under the federal securities laws and the continuous scrutiny of securities analysts and investors. In addition, we will need to implement and continue to operationalize many of the policies and controls needed to operate as a public company. These new obligations and constituents will require significant attention from our senior management and could divert their attention away from the day-to-day management of our business, which could adversely affect our business, financial condition, and operating results.

We may experience difficulties in managing our growth and expanding our operations.

We expect to experience significant growth in the scope and nature of our operations. Our ability to manage our operations and future growth will require us to continue to improve our operational, financial and management controls, compliance programs and reporting systems. We are currently in the process of strengthening our compliance programs, including our compliance programs related to export controls, privacy and cybersecurity and anti-corruption, as well as controls related to human resources. We may not be able to implement improvements in an efficient or timely manner and may discover deficiencies in existing controls, programs, systems and procedures, which could have an adverse effect on our business, reputation and financial results.

Our sales and operations in international markets expose us to operational, financial and regulatory risks.

International sales comprise a significant amount of our overall revenue. Sales to international customers accounted for 66%, 54% and 41% of our revenue in 2020, 2019 and 2018, respectively. We are committed to growing our international sales, and while we have committed resources to expanding our international operations and sales channels, these efforts may not be successful. International operations are subject to a number of other risks, including:

- Exchange rate fluctuations.

- Political and economic instability, international terrorism and anti-American sentiment, particularly in emerging markets.
- Global or regional health crises, such as the COVID-19 pandemic.
- Potential for violations of anti-corruption laws and regulations, such as those related to bribery and fraud.
- Preference for locally branded products, and laws and business practices favoring local competition.
- Potential consequences of, and uncertainty related to, the “Brexit” process in the United Kingdom, which could lead to additional expense and complexity in doing business there.
- Increased difficulty in managing inventory.
- Delayed revenue recognition.
- Less effective protection of intellectual property.
- Stringent regulation of the autonomous or other systems or products using our products and stringent consumer protection and product compliance regulations, including but not limited to General Data Protection Regulation in the European Union, European competition law, the Restriction of Hazardous Substances directive, the Waste Electrical and Electronic Equipment directive and the European Ecodesign directive that are costly to comply with and may vary from country to country.
- Difficulties and costs of staffing and managing foreign operations.
- Import and export laws and the impact of tariffs.
- Changes in local tax and customs duty laws or changes in the enforcement, application or interpretation of such laws.

The occurrence of any of these risks could negatively affect our international business and consequently our business, operating results and financial condition.

Our business is subject to the risks of earthquakes, fire, floods and other natural catastrophic events, global pandemics, and interruptions by man-made problems, such as network security breaches, computer viruses or terrorism. Material disruptions of our business or information systems resulting from these events could adversely affect our operating results.

A significant natural disaster, such as an earthquake, fire, flood or significant power outage or other similar events, such as infectious disease outbreaks or pandemic events, including the COVID-19 pandemic, could have an adverse effect on our business and operating results. The COVID-19 pandemic has produced meaningful operational challenges and we expect to continue to experience disruptions in our business during 2021. COVID-19 has heightened many of the other risks described herein, such as the demand for our products, our ability to achieve or maintain profitability and our ability to raise additional capital in the future. Despite the implementation of network security measures, our networks and lidar products also may be vulnerable to computer viruses, break-ins and similar disruptions from unauthorized tampering with our solutions. Both our corporate headquarters and manufacturing facility are located in the San Francisco Bay Area, a region known for seismic activity. In addition, natural disasters, acts of terrorism or war could cause disruptions in our remaining manufacturing operations, our or our customers’ or channel partners’ businesses, our suppliers’ or the economy as a whole. We also rely on information technology systems to communicate among our workforce and with third parties. Any disruption to our communications, whether caused by a natural disaster or by manmade problems, such as power disruptions, could adversely affect our business. We do not have a formal disaster recovery plan or policy in place and does not currently require that our suppliers’ partners have such plans or policies in place. To the extent that any such disruptions result in delays or cancellations of orders or impede our suppliers’ ability to timely deliver product components, or the deployment of our products, our business, operating results and financial condition would be adversely affected.

Risks Related to Legal and Regulatory Matters

Changes to trade policy, tariffs and import/export regulations may have a material adverse effect on our business, financial condition and results of operations.

Changes in global political, regulatory and economic conditions or in laws and policies governing foreign trade, manufacturing, development and investment in the territories or countries where we currently purchase our components, sell

our products or conduct our business could adversely affect our business. The U.S. has recently instituted or proposed changes in trade policies that include the negotiation or termination of trade agreements, the imposition of higher tariffs on imports into the U.S., economic sanctions on individuals, corporations or countries, and other government regulations affecting trade between the United States and other countries where we conduct our business. A number of other nations have proposed or instituted similar measures directed at trade with the U.S. in response. As a result of these developments, there may be greater restrictions and economic disincentives on international trade that could adversely affect our business. For example, such changes could adversely affect the automotive market, our ability to access key components or raw materials needed to manufacture our products (including, but not limited to, rare-earth metals), our ability to sell our products to customers outside of the U.S. and the demand for our products. It may be time-consuming and expensive for us to alter our business operations to adapt to or comply with any such changes, and any failure to do so could have a material adverse effect on our business, financial condition and results of operations.

We have in the past and may become involved in legal and regulatory proceedings and commercial or contractual disputes, which could have an adverse effect on our profitability and consolidated financial position.

We may be, from time to time, involved in litigation, regulatory proceedings and commercial or contractual disputes that may be significant. These matters may include, without limitation, disputes with our suppliers and customers, intellectual property claims, stockholder litigation, government investigations, class action lawsuits, personal injury claims, environmental issues, customs and VAT disputes and employment and tax issues. In addition, we have in the past and could face in the future a variety of labor and employment claims against it, which could include but is not limited to general discrimination, wage and hour, privacy, ERISA or disability claims. In such matters, government agencies or private parties may seek to recover from us very large, indeterminate amounts in penalties or monetary damages (including, in some cases, treble or punitive damages) or seek to limit our operations in some way. These types of lawsuits could require significant management time and attention or could involve substantial legal liability, adverse regulatory outcomes, and/or substantial expenses to defend. Often these cases raise complex factual and legal issues and create risks and uncertainties. No assurances can be given that any proceedings and claims will not have a material adverse impact on our operating results and consolidated financial position or that our established reserves or our available insurance will mitigate this impact.

We are subject to, and must remain in compliance with, numerous laws and governmental regulations concerning the manufacturing, use, distribution and sale of our products. Some of our customers also require that we comply with their own unique requirements relating to these matters.

We manufacture and sell products that contain electronic components, and such components may contain materials that are subject to government regulation in both the locations where we manufacture and assemble our products, as well as the locations where we sell our products. For example, certain regulations limit the use of lead in electronic components. Since we operate on a global basis, this is a complex process which requires continual monitoring of regulations and an ongoing compliance process to ensure that we and our suppliers are in compliance with all existing regulations. If there is an unanticipated new regulation that significantly impacts our use of various components or requires more expensive components, that regulation could materially adversely affect our business, results of operations and financial condition.

Our products are also used for autonomous driving and ADAS applications, which are subject to complicated regulatory schemes that vary from jurisdiction to jurisdiction. These are rapidly evolving areas where new regulations could impose limitations on the use of lidar generally or our products specifically. If we fail to adhere to these new regulations or fails to continually monitor the updates, we may be subject to litigation, loss of customers or negative publicity and our business, results of operations and financial condition will be adversely affected.

Concerns over environmental pollution and climate change have produced significant legislative and regulatory efforts on a global basis, and we believe this will continue both in scope and in the number of countries participating. These changes could directly increase the cost of energy, which may have an effect on the way we manufacture products or utilize energy to produce our products. In addition, any new regulations or laws in the environmental area might increase the cost of raw materials or key components we use in our products. Environmental regulations require us to reduce product energy usage, monitor and exclude an expanding list of restricted substances and to participate in required recovery and recycling of our products. We are unable to predict how any future changes will impact it and if such impacts will be material to our business.

Our business may be adversely affected by changes in automotive safety regulations or concerns that drive further regulation of the automobile safety market.

Government vehicle safety regulations are an important factor for our business. Historically, these regulations have imposed ever-more stringent safety regulations for vehicles. These safety regulations often require, or customers demand that, vehicles have more safety features per vehicle and more advanced safety products.

While we believe increasing automotive safety standards will present a market opportunity for our products, government safety regulations are subject to change based on a number of factors that are not within our control, including new scientific or technological data, adverse publicity regarding the industry recalls and safety risks of autonomous driving and ADAS, accidents involving our products, domestic and foreign political developments or considerations, and litigation relating to our products and our competitors' products. Changes in government regulations, especially in the autonomous driving and ADAS industries could adversely affect our business. If government priorities shift and we are unable to adapt to changing regulations, our business may be materially and adversely affected.

Federal and local regulators impose more stringent compliance and reporting requirements in response to product recalls and safety issues in the automotive industry. As the cars that carry our sensors go into production, we are subject to existing stringent requirements under the National Traffic and Motor Vehicle Safety Act of 1966, or the Vehicle Safety Act, including a duty to report, subject to strict timing requirements, safety defects with our products. The Vehicle Safety Act imposes potentially significant civil penalties for violations including the failure to comply with such reporting actions. We are also subject to the existing U.S. Transportation Recall Enhancement, Accountability and Documentation Act, or TREAD, which requires equipment manufacturers, such as Velodyne, to comply with "Early Warning" requirements by reporting certain information to the NHTSA, such as information related to defects or reports of injury related to our products. TREAD imposes criminal liability for violating such requirements if a defect subsequently causes death or bodily injury. In addition, the National Traffic and Motor Vehicle Safety Act authorizes NHTSA to require a manufacturer to recall and repair vehicles that contain safety defects or fail to comply with U.S. federal motor vehicle safety standards. Sales into foreign countries may be subject to similar regulations. If we cannot rapidly address any safety concerns or defects with our products, our business, results of operations and financial condition may be adversely affected.

The U.S. Department of Transportation issued regulations in 2016 that require manufacturers of certain autonomous vehicles to provide documentation covering specific topics to regulators, such as how automated systems detect objects on the road, how information is displayed to drivers, what cybersecurity measures are in place and the methods used to test the design and validation of autonomous driving systems. As cars that carry our sensors go into production, the obligations of complying with safety regulations could increase and it could require increased resources and adversely affect our business.

Failures, or perceived failures, to comply with privacy, data protection, and information security requirements in the variety of jurisdictions in which we operate may adversely impact our business, and such legal requirements are evolving, uncertain and may require improvements in, or changes to, our policies and operations.

Our current and potential future operations and sales subject it to laws and regulations addressing privacy and the collection, use, storage, disclosure, transfer and protection of a variety of types of data. For example, the European Commission has adopted the General Data Protection Regulation and California recently enacted the California Consumer Privacy Act of 2018, both of which provide for potentially material penalties for non-compliance. These regimes may, among other things, impose data security requirements, disclosure requirements, and restrictions on data collection, uses, and sharing that may impact our operations and the development of our business. While, generally, we do not have access to, collect, store, process, or share information collected by our solutions unless our customers choose to proactively provide such information to us, our products may evolve both to address potential customer requirements and to add new features and functionality. Therefore, the full impact of these privacy regimes on our business is rapidly evolving across jurisdictions and remains uncertain at this time.

We may also be affected by cyber attacks and other means of gaining unauthorized access to our products, systems, and data. For instance, cyber criminals or insiders may target us or third-parties with which we have business relationships in an effort to obtain data, or in a manner that disrupts our operations or compromises our products or the systems into which our products are integrated.

We are assessing the continually evolving privacy and data security regimes and measures it believes are appropriate in response. Since these data security regimes are evolving, uncertain and complex, especially for a global business like ours, we may need to update or enhance our compliance measures as our products, markets and customer demands further develop and these updates or enhancements may require implementation costs. The compliance measures we do adopt may prove ineffective. Any failure, or perceived failure, by us to comply with current and future regulatory or customer-driven privacy,

data protection, and information security requirements, or to prevent or mitigate security breaches, cyber attacks, or improper access to, use of, or disclosure of data, or any security issues or cyber attacks affecting us, could result in significant liability, costs (including the costs of mitigation and recovery), and a material loss of revenue resulting from the adverse impact on our reputation and brand, loss of proprietary information and data, disruption to our business and relationships, and diminished ability to retain or attract customers and business partners. Such events may result in governmental enforcement actions and prosecutions, private litigation, fines and penalties or adverse publicity, and could cause customers and business partners to lose trust in us, which could have an adverse effect on our reputation and business.

Regulations related to conflict minerals may cause us to incur additional expenses and could limit the supply and increase the costs of certain metals used in the manufacturing of our products.

We are subject to the requirements under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Dodd-Frank Act, that will require it to determine, disclose and report whether our products contain conflict minerals. The implementation of these requirements could adversely affect the sourcing, availability and pricing of the materials used in the manufacture of components used in our products. In addition, we will incur additional costs to comply with the disclosure requirements, including costs related to conducting diligence procedures to determine the sources of conflict minerals that may be used in or necessary to the production of our products and, if applicable, potential changes to products, processes or sources of supply as a consequence of such verification activities. It is also possible that our reputation may be adversely affected if we determine that certain of our products contain minerals not determined to be conflict-free or if we are unable to alter our products, processes or sources of supply to avoid use of such materials.

We may be subject to product liability or warranty claims that could result in significant direct or indirect costs, which could adversely affect our business and operating results.

Our customers use our smart vision solutions in autonomous driving, ADAS and other applications that present the risk of significant injury, including fatalities. We may be subject to claims if a product using our lidar technology is involved in an accident and persons are injured or purport to be injured. Any insurance that we carry may not be sufficient or it may not apply to all situations. Similarly, our customers could be subjected to claims as a result of such accidents and bring legal claims against us to attempt to hold it liable. In addition, if lawmakers or governmental agencies were to determine that the use of our products or autonomous driving or certain ADAS increased the risk of injury to all or a subset of our customers, they may pass laws or adopt regulations that limit the use of our products or increase our liability associated with the use of our products or that regulate the use of or delay the deployment of autonomous driving and ADAS technology. Any of these events could adversely affect our brand, relationships with customers, operating results or financial condition.

We typically provide a limited-time warranty on our products. The occurrence of any material defects in our products could make us liable for damages and warranty claims. In addition, we could incur significant costs to correct any defects, warranty claims or other problems, including costs related to product recalls. Any negative publicity related to the perceived quality of our products could affect our brand image, partner and customer demand, and adversely affect our operating results and financial condition. Also, warranty, recall and product liability claims may result in litigation, the occurrence of which could be costly, lengthy and distracting and adversely affect our business and operating results.

Risks Related to Intellectual Property

Despite the actions we are taking to defend and protect our intellectual property, we may not be able to adequately protect or enforce our intellectual property rights or prevent unauthorized parties from copying or reverse engineering our solutions. Our efforts to protect and enforce our intellectual property rights and prevent third parties from violating our rights may be costly.

The success of our products and our business depends in part on our ability to obtain patents and other intellectual property rights and maintain adequate legal protection for our products in the United States and other international jurisdictions. We rely on a combination of patent, copyright, service mark, trademark and trade secret laws, as well as confidentiality procedures and contractual restrictions, to establish and protect our proprietary rights, all of which provide only limited protection. We cannot assure you that any patents will be issued with respect to our currently pending patent applications or that any trademarks will be registered with respect to our currently pending applications in a manner that gives us adequate defensive protection or competitive advantages, if at all, or that any patents issued to us or any trademarks registered by us will not be challenged, invalidated or circumvented. We have filed for patents and trademarks in the United States and in certain international jurisdictions, but such protections may not be available in all countries in which we operate

or in which we seek to enforce our intellectual property rights, or may be difficult to enforce in practice. Our currently issued patents and trademarks and any patents and trademarks that may be issued or registered, as applicable, in the future with respect to pending or future applications may not provide sufficiently broad protection or may not prove to be enforceable in actions against alleged infringers. We cannot be certain that the steps we have taken will prevent unauthorized use of our technology or the reverse engineering of our technology. Moreover, others may independently develop technologies that are competitive to us or infringe our intellectual property.

Protecting against the unauthorized use of our intellectual property, products and other proprietary rights is expensive and difficult, particularly internationally. We believe that our patents are foundational in the area of lidar products and intends to enforce the intellectual property portfolio we have built over the years. Unauthorized parties may attempt to copy or reverse engineer our smart vision solutions or certain aspects of our solutions that it considers proprietary. Litigation may be necessary in the future to enforce or defend our intellectual property rights, to prevent unauthorized parties from copying or reverse engineering our solutions, to determine the validity and scope of the proprietary rights of others or to block the importation of infringing products into the U.S.

For example, we recently achieved a favorable result in two proceedings before the U.S. Patent Trial and Appeal Board (“PTAB”) where the PTAB upheld the validity of our patent claims that were being challenged as unpatentable by one of our competitors. Our competitor filed a request for rehearing that was denied by the PTAB. The matter may proceed to an appeal in the future. In addition, that same competitor initiated a lawsuit in the U.S. District Court for the Northern District of California, and while that case is stayed pending PTAB proceedings, we cannot guarantee a favorable outcome in the litigation.

Additionally, to protect our intellectual property, we filed patent infringement cases in August 2019 with the U.S. International Trade Commission (“ITC”) and the U.S. District Court for the Northern District of California against Hesai Photonics Technology Co., Ltd. (“Hesai”) and Suteng Innovation Technology Co., Ltd. (“RoboSense”). We resolved our disputes with Hesai in June 2020 and resolved our disputes with RoboSense in September 2020.

Any such litigation, whether initiated by us or a third party, could result in substantial costs and diversion of management resources, either of which could adversely affect our business, operating results and financial condition. Even if it obtains favorable outcomes in litigation, we may not be able to obtain adequate remedies, especially in the context of unauthorized parties copying or reverse engineering our smart vision solutions. Further, many of our current and potential competitors have the ability to dedicate substantially greater resources to defending intellectual property infringement claims and to enforcing their intellectual property rights than we have. Attempts to enforce our rights against third parties could also provoke these third parties to assert their own intellectual property or other rights against us, or result in a holding that invalidates or narrows the scope of our rights, in whole or in part. Effective patent, trademark, service mark, copyright and trade secret protection may not be available in every country in which our products are available and competitors based in other countries may sell infringing products in one or more markets. An inability to adequately protect and enforce our intellectual property and other proprietary rights or an inability to prevent authorized parties from copying or reverse engineering our smart vision solutions or certain aspects of our solutions that we consider proprietary could seriously adversely affect our business, operating results, financial condition and prospects.

In addition to patented technology, we rely on our unpatented proprietary technology, trade secrets, processes and know-how.

We rely on proprietary information (such as trade secrets, know-how and confidential information) to protect intellectual property that may not be patentable or subject to copyright, trademark, trade dress or service mark protection, or that we believe is best protected by means that do not require public disclosure. We generally seek to protect this proprietary information by entering into confidentiality agreements, or consulting, services or employment agreements that contain non-disclosure and non-use provisions with our employees, consultants, contractors and third parties. However, we may fail to enter into the necessary agreements, and even if entered into, these agreements may be breached or may otherwise fail to prevent disclosure, third-party infringement or misappropriation of our proprietary information, may be limited as to their term and may not provide an adequate remedy in the event of unauthorized disclosure or use of proprietary information. We have limited control over the protection of trade secrets used by our current or future manufacturing partners and suppliers and could lose future trade secret protection if any unauthorized disclosure of such information occurs. In addition, our proprietary information may otherwise become known or be independently developed by our competitors or other third parties. To the extent that our employees, consultants, contractors, advisors and other third parties use intellectual property owned by others in their work for Velodyne, disputes may arise as to the rights in related or resulting know-how and

inventions. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain protection for our proprietary information could adversely affect our competitive business position. Furthermore, laws regarding trade secret rights in certain markets where we operate may afford little or no protection to our trade secrets. We also rely on physical and electronic security measures to protect our proprietary information, but it cannot provide assurance that these security measures will not be breached or provide adequate protection for our property. There is a risk that third parties may obtain and improperly utilize our proprietary information to our competitive disadvantage. We may not be able to detect or prevent the unauthorized use of such information or take appropriate and timely steps to enforce our intellectual property rights.

Third-party claims that we are infringing intellectual property, whether successful or not, could subject us to costly and time-consuming litigation or expensive licenses, and our business could be adversely affected.

Although we hold key patents related to our products, a number of companies, both within and outside of the lidar industry, hold other patents covering aspects of lidar products. In addition to these patents, participants in this industry typically also protect their technology, especially embedded software, through copyrights and trade secrets. As a result, there is frequent litigation based on allegations of infringement, misappropriation or other violations of intellectual property rights. We have received, and in the future may receive, inquiries from other intellectual property holders and may become subject to claims that it infringes their intellectual property rights, particularly as we expand our presence in the market, expands to new use cases and faces increasing competition. In addition, parties may claim that the names and branding of our products infringe their trademark rights in certain countries or territories. If such a claim were to prevail, we may have to change the names and branding of our products in the affected territories and we could incur other costs.

We currently have a number of agreements in effect pursuant to which we have agreed to defend, indemnify and hold harmless our customers, suppliers, and channel partners and other partners from damages and costs which may arise from the infringement by our products of third-party patents or other intellectual property rights. The scope of these indemnity obligations varies, but may, in some instances, include indemnification for damages and expenses, including attorneys' fees. Our insurance may not cover all intellectual property infringement claims. A claim that our products infringe a third party's intellectual property rights, even if untrue, could adversely affect our relationships with our customers, may deter future customers from purchasing our products and could expose us to costly litigation and settlement expenses. Even if we are not a party to any litigation between a customer and a third party relating to infringement by our products, an adverse outcome in any such litigation could make it more difficult for us to defend our products against intellectual property infringement claims in any subsequent litigation in which we are a named party. Any of these results could adversely affect our brand and operating results.

Our defense of intellectual property rights claims brought against it or our customers, suppliers and channel partners, with or without merit, could be time-consuming, expensive to litigate or settle, divert management resources and attention and force us to acquire intellectual property rights and licenses, which may involve substantial royalty or other payments and may not be available on acceptable terms or at all. Further, a party making such a claim, if successful, could secure a judgment that requires us to pay substantial damages or obtain an injunction. An adverse determination also could invalidate our intellectual property rights and adversely affect our ability to offer our products to our customers and may require that we procure or develop substitute products that do not infringe, which could require significant effort and expense. Any of these events could adversely affect our business, operating results, financial condition and prospects.

Risks Related to Tax and Accounting Matters

Changes in tax laws or exposure to additional income tax liabilities could affect our future profitability.

Factors that could materially affect our future effective tax rates include but are not limited to:

- Changes in tax laws or the regulatory environment.
- Changes in accounting and tax standards or practices.
- Changes in the composition of operating income by tax jurisdiction.
- Our operating results before taxes.

Because we do not have a long history of operating at our present scale and we have significant expansion plans, our effective tax rate may fluctuate in the future. Future effective tax rates could be affected by operating losses in jurisdictions

where no tax benefit can be recorded under U.S. GAAP, changes in the composition of earnings in countries with differing tax rates, changes in deferred tax assets and liabilities, or changes in tax laws.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

As of December 31, 2020, we had \$173.5 million of U.S. federal and \$105.5 million of state net operating loss carryforwards available to reduce future taxable income, which will be carried forward indefinitely for U.S. federal tax purposes and will expire beginning in 2028 through 2040 for state tax purposes. It is possible that we will not generate taxable income in time to use these net operating loss carryforwards before their expiration or at all. In addition, the federal and state net operating loss carryforwards and certain tax credits may be subject to significant limitations under Section 382 and Section 383 of the Internal Revenue Code of 1986, as amended (the “Code”), respectively, and similar provisions of state law. Under those sections of the Code, if a corporation undergoes an “ownership change,” the corporation’s ability to use our pre-change net operating loss carryforwards and other pre-change attributes, such as research tax credits, to offset our post-change income or tax may be limited. In general, an “ownership change” will occur if there is a cumulative change in our ownership by “5% shareholders” that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. We have not yet undertaken an analysis of whether or not the Business Combination constitutes an “ownership change” for purposes of Section 382 and Section 383 of the Code.

Unanticipated changes in effective tax rates or adverse outcomes resulting from examination of our income or other tax returns could adversely affect our financial condition and results of operations.

We are subject to income taxes in the United States and other jurisdictions, and our tax liabilities will be subject to the allocation of expenses in differing jurisdictions. Our future effective tax rates could be subject to volatility or adversely affected by a number of factors, including:

- changes in the valuation of our deferred tax assets and liabilities;
- expected timing and amount of the release of any tax valuation allowances;
- tax effects of stock-based compensation;
- costs related to intercompany restructurings;
- changes in tax laws, regulations or interpretations thereof; or
- lower than anticipated future earnings in jurisdictions where we have lower statutory tax rates and higher than anticipated future earnings in jurisdictions where we have higher statutory tax rates.

In addition, we may be subject to audits of our income, sales and other transaction taxes by taxing authorities. Outcomes from these audits could have an adverse effect on our financial condition and results of operations.

We have identified material weaknesses in our internal control over financial reporting, and the failure to achieve and maintain effective internal control over financial reporting could harm our business and negatively impact the market price of our common stock.

Our management determined that, as of December 31, 2020, we did not maintain effective internal control over financial reporting. During the year, management identified a material weakness related to our process and controls over tracking and reporting whistleblower complaints and litigation matters that was remediated in the fourth quarter. In addition, management identified a material weakness in connection with our failure to adequately review revenue schedules associated with non-standard revenue arrangements, which resulted in misstatements of revenue and deferred revenue for the three months ended December 31, 2020. These misstatements have been corrected as of year-end.

We are working to remediate the remaining material weakness and have taken and continue to take steps that we believe will address the underlying causes, including the following:

- We have enhanced the review process surrounding the quarterly and annual assessment of the ongoing status of standard and non-standard agreements and schedules.
- We have designed new controls and procedures associated with non-standard agreements and schedules, which requires incremental levels of accounting review, and

- We intend to hire additional resources with the relevant experience to strengthen our contract review processes.

While we have made progress to enhance our internal control over financial reporting, additional time is required to complete implementation and to assess and ensure the sustainability of these procedures. We will continue to devote time and attention to these remedial efforts. However, the remaining material weakness cannot be considered remediated until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively.

We cannot assure you that the measures we have taken to date will be sufficient to remediate the remaining material weakness we identified or prevent additional material weaknesses in the future. Although we plan to complete this remediation, if the steps we take do not remediate the remaining material weakness in a timely or sufficient manner, there could continue to be a reasonable possibility that these control deficiencies or others could result in a material misstatement of our annual or interim financial statements that would not be prevented or detected on a timely basis. This could cause investors to lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be negatively affected, and we could become subject to investigations by the SEC or other regulatory authorities.

If we fail to maintain an effective system of internal controls, our ability to produce timely and accurate financial statements or comply with applicable regulations could be adversely affected.

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), the Sarbanes-Oxley Act (“SOX”), and the rules and regulations of Nasdaq. We expect that the requirements of these rules and regulations will continue to increase our legal, accounting and financial compliance costs, make some activities more difficult, time-consuming and costly, and place significant strain on our personnel, systems and resources.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are continuing to develop and refine our disclosure controls, internal control over financial reporting and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we file with the Securities and Exchange Commission (the “SEC”) is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that information required to be disclosed in reports under the Exchange Act is accumulated and communicated to our principal executive and financial officers.

Our current controls and any new controls that we develop may become inadequate because of changes in conditions in our business. Further, we have identified material weaknesses in our internal control over financial reporting, and additional such weaknesses may be discovered in the future. See “—We have identified material weaknesses in our internal control over financial reporting, and the failure to achieve and maintain effective internal control over financial reporting could harm our business and negatively impact the market price of our common stock.” Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could adversely affect our operating results or cause us to fail to meet our reporting obligations and may result in a restatement of our financial statements for prior periods. Any failure to implement and maintain effective internal controls also could adversely affect the results of periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting that we are required to include in our periodic reports we will file with the SEC under Section 404 of the Sarbanes-Oxley Act. Ineffective disclosure controls and procedures and internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information.

In order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended and anticipate that we will continue to expend significant resources, including accounting-related costs, and provide significant management oversight. Any failure to maintain the adequacy of our internal controls, or consequent inability to produce accurate financial statements on a timely basis, could increase our operating costs and could materially and adversely affect our ability to operate our business. In the event that our internal controls are perceived as inadequate or that we are unable to produce timely or accurate financial statements, investors may lose confidence in our operating results and our stock price could decline. In addition, if we are unable to continue to meet these requirements, we may not be able to maintain our listing on Nasdaq.

Our independent registered public accounting firm is not required to formally attest to the effectiveness of our internal control over financial reporting until after we are no longer an emerging growth company. At such time, our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our

controls are documented, designed or operating. Any failure to maintain effective disclosure controls and internal control over financial reporting could have a material and adverse effect on our business and operating results.

Risks Related to Ownership of our Common Stock

Resales of the shares of common stock could depress the market price of our common stock.

We had approximately 175.9 million shares of common stock outstanding as of December 31, 2020, and there may be a large number of shares of common stock sold in the market. The shares held by our public stockholders are freely tradable, and the shares of common stock held by the PIPE Investors are also freely tradable. In addition, the shares of common stock issued as merger consideration, will become available for resale following the expiration of any applicable lock-up period, including any early release of such lock-up period. These resales could have the effect of decreasing the price of our common stock, particularly if stockholders or groups of stockholders were to seek to sell large blocks of shares in short periods of time. We also expect that Rule 144 will become available for the resale of shares of our common stock that are not registered for resale on October 5, 2021, the one year anniversary from the date that we filed the Current Report on Form 8-K following the closing of the Business Combination that included the required Form 10 information that reflects we were no longer a shell company. Such sales of shares of common stock or the perception of such sales may depress the market price of our common stock. If the market price of our common stock declines for any reason, including due to resales of shares of our common stock in the open market, it is possible that we may become subject to securities class action litigation. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

Our only significant asset is our ownership interest in our Velodyne Lidar subsidiary and such ownership may not be sufficient to pay dividends or make distributions or loans to enable us to pay any dividends on our common stock.

We are a holding company with no direct operations and no significant assets other than our ownership of Velodyne. We will depend on Velodyne for distributions, loans and other payments to generate the funds necessary to meet our financial obligations, including our expenses as a publicly traded company and pay any dividends with respect to our common stock. The financial condition and operating requirements of Velodyne may limit our ability to obtain cash from Velodyne. The earnings from, or other available assets of, Velodyne may not be sufficient to pay dividends or make distributions or loans to enable us to pay any dividends on our common stock or satisfy our other financial obligations.

The ability of Velodyne to make distributions, loans and other payments to us for the purposes described above and for any other purpose may be limited by credit agreements to which Velodyne is party from time to time, including the existing loan and security agreement described in Item 7: "Management's Discussion and Analysis of Financial Condition and Results of Operations", and will be subject to the negative covenants set forth therein. Any loans or other extensions of credit to us from Velodyne will be permitted only to the extent there is an applicable exception to the investment covenants under these credit agreements. Similarly, any dividends, distributions or similar payments to us from Velodyne will be permitted only to the extent there is an applicable exception to the dividends and distributions covenants under these credit agreements.

A market for our securities may not continue, which would adversely affect the liquidity and price of our securities.

The price of our securities may fluctuate significantly due to the market's reaction to the developments in our business and general market and economic conditions. An active trading market for our securities may not be sustained. In addition, the price of our securities can vary due to general economic conditions and forecasts, our general business condition and the release of our financial reports. You may be unable to sell your securities when desired or at an acceptable price unless an active trading market can be sustained.

If we do not meet the expectations of investors, stockholders or financial analysts, the market price of our securities may decline.

If we do not meet the expectations of investors or securities analysts, the market price of our securities may decline. In addition, fluctuations in the price of our securities could contribute to the loss of all or part of your investment. If an active market for our securities develops and continues, the trading price of our securities could be volatile and subject to wide fluctuations in response to various factors, some of which are beyond our control. Any of the factors listed below could have a material adverse effect on your investment in our securities and our securities may trade at prices significantly below the

price you paid for them. In such circumstances, the trading price of our securities may not recover and may experience a further decline.

Factors affecting the trading price of our securities may include:

- actual or anticipated fluctuations in our quarterly financial results or the quarterly financial results of companies perceived to be similar to us;
- changes in the market's expectations about our operating results;
- the public's reaction to our press releases, our other public announcements and our filings with the SEC;
- speculation in the press or investment community;
- announcements of technological innovation, new products, acquisitions, strategic alliances, significant agreements by us or competitors;
- success of competitors;
- our operating results failing to meet the expectation of securities analysts or investors in a particular period;
- changes in financial estimates and recommendations by securities analysts concerning us or the market in general;
- operating and stock price performance of other companies that investors deem comparable to us;
- our ability to market new and enhanced products on a timely basis;
- changes in laws and regulations affecting our business;
- commencement of, or involvement in, litigation;
- changes in our capital structure, such as future issuances of securities or the incurrence of additional debt;
- the volume of shares of our common stock available for public sale;
- any major change in our Board or management;
- sales of substantial amounts of common stock by our directors, officers or significant stockholders or the perception that such sales could occur;
- the expiration of existing market stand-off or contractual lock-up agreements;
- the realization of any of the risk factors presented in this Annual Report on Form 10-K;
- additions or departures of key personnel;
- failure to comply with the requirements of Nasdaq;
- failure to comply with SOX or other laws or regulations;
- actual, potential or perceived control, accounting or reporting problems;
- changes in accounting principles, policies and guidelines; and
- general economic and political conditions such as recessions, COVID-19, interest rates, fuel prices, international currency fluctuations and acts of war or terrorism.

Broad market and industry factors may materially harm the market price of our securities irrespective of our operating performance. The stock market in general and Nasdaq have experienced price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of the particular companies affected. The trading prices and valuations of these stocks, and of our securities, may not be predictable. A loss of investor confidence in the market for the stocks of other companies which investors perceive to be similar to us could depress our stock price regardless of our business, prospects, financial conditions or results of operations. A decline in the market price of our securities also could adversely affect our ability to issue additional securities and our ability to obtain additional financing in the future.

In the past, securities class action litigation has often been initiated against companies following periods of volatility in their stock price. This type of litigation could result in substantial costs and divert our management's attention and resources, and could also require us to make substantial payments to satisfy judgments or to settle litigation.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business, or our market, or if they change their recommendations regarding our common stock adversely, then the price and trading volume of our common stock could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts may publish about us, our business, our market, or our competitors. Securities and industry analysts do not currently, and may never, publish research on Velodyne. If no securities or industry analysts commence coverage of Velodyne, our stock price and trading volume would likely be negatively impacted. If any of the analysts who may cover us change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, the price of our common stock would likely decline. If any analyst who may cover us were to cease coverage or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our stock price or trading volume to decline.

We may redeem unexpired Warrants prior to their exercise at a time that is disadvantageous to warrant holders, thereby making their public warrants worthless.

We have the ability to redeem outstanding public warrants at any time after they become exercisable and prior to their expiration, at a price of \$0.01 per public warrant; provided that the last reported sales price of our common stock equals or exceeds \$18.00 per share (as adjusted for stock splits, stock dividends, reorganizations, recapitalizations and the like) for any 20 trading days within a 30 trading-day period ending on the third trading day prior to the date on which we give notice of such redemption to the warrant holders. Redemption of the outstanding Warrants could force the Warrant holders: (i) to exercise their Warrants and pay the exercise price therefor at a time when it may be disadvantageous for them to do so; to sell their Warrants at the then-current market price when they might otherwise wish to hold their Warrants; or (iii) to accept the nominal redemption price which, at the time the outstanding Warrants are called for redemption, is likely to be substantially less than the market value of their Warrants.

Warrants and other shares underlying equity awards could increase the number of shares eligible for future resale in the public market and result in dilution to our stockholders.

As of December 31, 2020, we had outstanding warrants exercisable for 11,458,486 shares of common stock at \$11.50 per share. The shares of our common stock issued upon exercise of our Warrants will result in dilution to the then existing holders of common stock and increase the number of shares eligible for resale in the public market. In addition, as of December 31, 2020, we had outstanding RSUs covering 13,085,319 shares of common stock and options to purchase 597,354 shares of our common stock. The time-based vested portions of the RSUs must settle before March 15, 2021, and as a result, it is anticipated that a significant portion of the shares underlying these RSUs will be sold in order to fund tax withholding obligations. Sales of substantial numbers of such shares in the public market could adversely affect the market price of our common stock.

Anti-takeover provisions contained in our Amended and Restated Certificate of Incorporation and bylaws, as well as provisions of Delaware law, could impair a takeover attempt.

Our Amended and Restated Certificate of Incorporation contains provisions that may discourage unsolicited takeover proposals that stockholders may consider to be in their best interests. We are also subject to anti-takeover provisions under Delaware law, which could delay or prevent a change of control. Together, these provisions may make more difficult the removal of management and may discourage transactions that otherwise could involve payment of a premium over prevailing market prices for our securities. These provisions include:

- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- a classified board of directors with three-year staggered terms, which could delay the ability of stockholders to change the membership of a majority of the Board;
- the requirement that directors may only be removed from the Board for cause;
- the right of our Board to elect a director to fill a vacancy created by the expansion of our Board or the resignation, death or removal of a director in certain circumstances, which prevents stockholders from being able to fill vacancies on our Board;

- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- a prohibition on stockholders calling a special meeting and the requirement that a meeting of stockholders may only be called by a majority of the Board, the chairman of the Board or the chief executive office and may not be called by any other person, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;
- the requirement that changes or amendments to certain provisions of our Amended and Restated Certificate of Incorporation must be approved by holders of at least two-thirds of our common stock;
- advance notice procedures that stockholders must comply with in order to nominate candidates to our Board or to propose matters to be acted upon at a meeting of stockholders, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer’s own slate of directors or otherwise attempting to obtain control of Velodyne; and
- an opt out from Section 203 of the General Corporation Law of the State of Delaware (“DGCL”) and, instead, inclusion of a provision in the Amended and Restated Certificate of Incorporation that is substantially similar to Section 203 of the DGCL.

The JOBS Act permits “emerging growth companies” like us to take advantage of certain exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies.

We currently qualify as an “emerging growth company” as defined in Section 2(a)(19) of the Securities Act of 1933, as amended (the “Securities Act”), as modified by the Jumpstart Our Business Startups Act of 2012 (the “JOBS Act”). As such, we take advantage of certain exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies for as long as we continue to be an emerging growth company, including: (i) the exemption from the auditor attestation requirements with respect to internal control over financial reporting under Section 404 of SOX; (ii) the exemptions from say-on-pay, say-on-frequency and say-on-golden parachute voting requirements; and reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. As a result, our stockholders may not have access to certain information they deem important. We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year: (a) following October 18, 2023, the fifth anniversary of our IPO; (b) in which we have total annual gross revenue of at least \$1.07 billion; or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th, and (ii) the date on which we have issued more than \$1.0 billion in non-convertible debt during the prior three- year period.

In addition, Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of the exemption from complying with new or revised accounting standards provided in Section 7(a)(2)(B) of the Securities Act as long as we are an emerging growth company. An emerging growth company can therefore delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. The JOBS Act provides that a company can elect to opt out of the extended transition period and comply with the requirements that apply to non-emerging growth companies, but any such election to opt out is irrevocable. We have elected to avail ourselves of such extended transition period, which means that when a standard is issued or revised and we have different application dates for public or private companies, we, as an emerging growth company, can adopt the new or revised standard at the time private companies adopt the new or revised standard. This may make comparison of our financial statements with another public company that is neither an emerging growth company nor an emerging growth company that has opted out of using the extended transition period difficult or impossible because of the potential differences in accounting standards used.

We cannot predict if investors will find our common stock less attractive because we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

David Hall will have control over key decision making because he holds voting rights with respect to a majority of our voting stock.

David Hall, our former chairman and CEO, holds voting rights with respect to an aggregate of approximately 98.4 million and 98.5 million, respectively, shares of common stock, which represented approximately 54.6% and 52.3%, respectively, of the voting power of our outstanding capital stock as of December 31, 2020 and March 10, 2021. In addition

to the approximately 59.8 million shares of common stock currently held by Mr. Hall, which represented approximately 33.2% and 31.7%, respectively, of the voting power of our capital stock as of December 31, 2020 and March 10, 2021, stockholders holding approximately 38.6 million shares of common stock, including Joseph Culkin, Chairman of our Board, Marta Hall, a member of our Board, and certain other family members of Mr. Hall, have entered into agreements granting Mr. Hall an irrevocable proxy to vote such stockholders' shares at Mr. Hall's discretion on all matters to be voted upon by stockholders.

As a result, Mr. Hall will have the ability to control the outcome of matters submitted to our stockholders for approval, including the election of directors and any merger, consolidation, or sale of all or substantially all of our assets. In addition, Mr. Hall could have the ability to control our affairs as a result of his ability to control the election of our directors. This concentrated control will limit your ability to influence corporate matters for the foreseeable future, and, as a result, the market price of our common stock could be adversely affected.

As a stockholder, even as a controlling stockholder, Mr. Hall is entitled to vote his shares in his own interests, which may not always be in the interests of our stockholders generally and could adversely affect the market price of our common stock.

Compliance obligations under the Sarbanes-Oxley Act may require substantial financial and management resources.

As a public company, we are required to comply with the SEC's rules implementing Sections 302 and 404 of SOX, which require management to certify financial and other information in our quarterly and annual reports and provide an annual management report on the effectiveness of internal control over financial reporting. To comply with the requirements of being a public company, we have undertaken and expect to continue to undertake various actions, such as implementing additional internal controls and procedures and hiring additional accounting or internal audit staff. Additionally, we have identified material weaknesses in our internal control over financial reporting. We remediated one material weakness in the fourth quarter of 2020 and have put in place a remediation plan with respect to the remaining material weakness. See "—We have identified material weaknesses in our internal control over financial reporting, and the failure to achieve and maintain effective internal control over financial reporting could harm our business and negatively impact the market price of our common stock." Our management has devoted significant time, attention and resources to these remedial efforts and intends to hire additional personnel as part of our remediation plan.

The standards required for a public company under Section 404 of SOX are significantly more stringent than those required of Velodyne as a privately-held company. Further, as an emerging growth company, our independent registered public accounting firm is not required to formally attest to the effectiveness of our internal controls over financial reporting pursuant to Section 404 until the date we are no longer an emerging growth company. At such time, our independent registered public accounting firm may issue a report that is adverse in the event that it is not satisfied with the level at which our controls are documented, designed or operating, or if the remaining material weakness has not been remediated or additional material weaknesses have been identified.

Testing and maintaining these controls can divert our management's attention from other matters that are important to the operation of our business. If our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal controls over financial reporting when we no longer qualify as an emerging growth company, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be negatively affected, and we could become subject to investigations by the SEC or other regulatory authorities, which could require additional financial and management resources.

Our Amended and Restated Certificate of Incorporation designates the Court of Chancery of the State of Delaware and federal court within the State of Delaware as the exclusive forum for certain types of actions and proceedings that stockholders may initiate, which could limit a stockholder's ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our Amended and Restated Certificate of Incorporation provides that, subject to limited exceptions, the Court of Chancery of the State of Delaware and federal court within the State of Delaware will be exclusive forums for any:

- derivative action or proceeding brought on our behalf;
- action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to Velodyne or our stockholders;

- action asserting a claim against Velodyne arising pursuant to any provision of the DGCL, our Amended and Restated Certificate of Incorporation or bylaws; or
- other action asserting a claim against Velodyne that is governed by the internal affairs doctrine.

This choice of forum provision does not apply to actions brought to enforce a duty or liability created under the Exchange Act. Our Amended and Restated Certificate of Incorporation also provides that the federal district courts of the United States are the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. We intend for this provision to apply to any complaints asserting a cause of action under the Securities Act despite the fact that Section 22 of the Securities Act creates concurrent jurisdiction for the federal and state courts over all actions brought to enforce any duty or liability created by the Securities Act or the rules and regulations promulgated thereunder. There is uncertainty as to whether a court would enforce such a provision with respect to claims under the Securities Act, and stockholders will not be deemed to have waived compliance with the federal securities laws and the rules and regulations thereunder. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock shall be deemed to have notice of and to have consented to the provisions of the Amended and Restated Certificate of Incorporation described above.

These choice of forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and employees. Alternatively, if a court were to find these provisions of our Amended and Restated Certificate of Incorporation inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business and financial condition.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters is located in San Jose, California, consisting of approximately 205,000 square feet of office and manufacturing space. We also lease offices in Alameda, California, Riisselsheim, Germany and Beijing, China. We believe that our office space is adequate for our current needs and, should we need additional space, we believe we will be able to obtain additional space on commercially reasonable terms.

Item 3. Legal Proceedings

From time to time we are involved in actions, claims, suits and other proceedings in the ordinary course of business, including assertions by third parties relating to intellectual property infringement, breaches of contract or warranties or employment-related matters.

Quanergy Litigation

In September 2016, Quanergy Systems, Inc. (Quanergy) filed a complaint against us and one of our customers in the Northern District of California (the District Court litigation), seeking a declaratory judgment of non-infringement of one of our patents, U.S. Patent No. 7,969,558 (the '558 patent) and asserting state and federal trade secret misappropriation claims against us and our customer and breach of contract and constructive fraud claims against our customer. In November 2016, Quanergy filed an amended complaint, removing its trade secret misappropriation claims against us, dropping our customer from the suit and dropping the related claims of breach and constructive fraud. The amended complaint maintained only the declaratory judgment of non-infringement action against us. In December 2016, we filed an answer generally denying the allegations and relief requested in Quanergy's amended complaint. Our answer also included counterclaims against Quanergy asserting direct, indirect, and willful infringement of the '558 patent. In January 2017, Quanergy filed an answer generally denying the allegations in our patent infringement counterclaims and requesting relief. The court held a claim construction hearing on September 13, 2017 and issued a claim construction order on October 4, 2017, which adopted the majority of our proposed constructions. In June 2018, the district court entered an order granting a joint stipulation to stay the litigation.

Quanergy filed two petitions for inter partes review with the U.S. Patent Office's Patent Trials and Appeal Board (PTAB) in November 2017, challenging all claims of the '558 patent that we asserted. We filed our Patent Owner Preliminary Response to Quanergy's petitions on March 7, 2018. The PTAB issued an institution decision on May 25, 2018, instituting review of all challenged claims. We subsequently filed our Patent Owner Response and a Contingent Motion to Amend the claims. The PTAB held oral argument on February 27, 2019. On May 23, 2019, the PTAB issued a Final Written Decision upholding the validity of all the challenged claims, finding that Quanergy did not prove by a preponderance of the evidence that any of the challenged claims of the '558 patent were unpatentable, and denying our contingent motion as moot. In June 2019, Quanergy filed a request for rehearing. On May 21, 2020, the PTAB denied Quanergy's request for a rehearing. On July 21, 2020, Quanergy filed a Notice of Appeal, appealing the PTAB decision to the U.S. Court of Appeals for the Federal Circuit. Quanergy's opening appeal brief was filed on January 22, 2021. Our responsive appeal brief is due on April 2, 2021.

Employment Matters

On June 8, 2020, a former employee filed a class action lawsuit in the Santa Clara County Superior Court of the State of California. The complaint alleges that, among other things, we failed to pay minimum and overtime wages, final wages at termination, and other claims based on meal periods and rest breaks.

The plaintiff is bringing this lawsuit on behalf of herself and other similarly situated plaintiffs who have not been identified and is seeking to certify the action as a class action. The plaintiff has filed a First Amended Complaint that adds a claim pursuant to California's Private Attorneys General Act. The First Amended Complaint does not specify the amount the plaintiff seeks to recover. Velodyne's response to the First Amended Complaint was filed on November 16, 2020 and the parties are in the process of beginning discovery concerning class certification issues. The court has scheduled a Case Management Conference for May 26, 2021.

Business Combination

On August 4, 2020, a purported shareholder of Graf commenced a putative class action against Graf and its directors in the Supreme Court of the State of New York, New York County. The plaintiff alleges that the Board members, aided and abetted by Graf, breached their fiduciary duties by entering into the Merger Agreement with Velodyne. The plaintiff alleges that the Merger Agreement undervalues Graf, was the result of an improper process and that Graf's disclosure concerning the proposed Merger is inadequate. As a result of these alleged breaches of fiduciary duty, the plaintiff seeks, among other things, an award of rescissory damages. We believe the claim is without merit and intend to defend ourselves vigorously.

Securities Litigation Matters

On March 3, 2021, a purported shareholder of Velodyne filed a complaint for a putative class action against Velodyne, Anand Gopalan and Andrew Hamer in the United States District Court, Northern District of California, Case No. 21-cv-01486. The complaint alleges purported violations of the federal securities laws and that, among other things, the defendants made materially false and/or misleading statements and failed to disclose material facts about our business, operations and prospects. The complaint alleges that purported class members have suffered losses. The complaint seeks, among other things, an award of compensatory damages. We believe the claim is without merit and intend to defend ourselves vigorously.

On March 12, 2021, Robert Reese, a purported shareholder of Velodyne, filed a putative class action lawsuit entitled *Reese v. Velodyne Lidar, Inc., et al.*, No. 3:21-cv-01736, against Velodyne and two of our current officers, CEO Anand Gopalan and CFO Andrew Hamer (the "Officers") in the United States District Court for the Northern District of California. The plaintiff seeks unspecified damages on behalf of a putative class of persons who purchased or otherwise acquired the Company's common stock between November 9, 2020 and February 19, 2021. The complaint alleges that the defendants violated federal securities laws by making allegedly false and misleading statements and omitting certain material facts in certain public statements in our filings with the SEC. We and the Officers intend to deny all liability in this action and to defend against the lawsuit vigorously. This lawsuit mirrors the allegations asserted in the previously-filed case entitled *Moradpour v. Velodyne Lidar, Inc., et al.*, No. 3:21-cv-01482, which was filed in the same judicial district on March 2, 2021. The two cases are likely to be consolidated and effectively proceed as a single litigation.

On March 12, 2021, a shareholder derivative lawsuit was filed by Peter D'Arcy against current and former Velodyne Board members and/or officers Anand Gopalan, Andrew Hamer, David S. Hall, Marta Thoma Hall, Joseph B. Culkin,

Michael E. Dee, James A. Graf, Barbara Samardzich, and Christopher A. Thomas, and against Velodyne Lidar, Inc. as a nominal defendant. The case, filed in the United States District Court for the District of Delaware, asserts claims of breach of fiduciary duty, unjust enrichment, abuse of control, gross mismanagement, and waste of corporate assets against all of the individual defendants, and asserts a contribution claim against Gopalan and Hamer. The allegations center on recent public statements and securities filings made by Velodyne, beginning with our November 9, 2020 Form 10-Q and continuing through the Form 8-K filed on March 4, 2021, and on recent public statements and securities filings made by David Hall and Marta Thoma Hall. On March 16, 2021, a second shareholder derivative lawsuit was filed in the United States District Court for the District of Delaware by purported shareholders David Kondner and Brandon Jordan against the same defendants as named in D’Arcy’s complaint. The complaint by Kondner and Jordan makes similar allegations as those in D’Arcy’s complaint and seeks damages purportedly on behalf of the Company for alleged breaches of fiduciary duty and waste of corporate assets by the defendants. We intend to retain counsel and vigorously contest the allegations in both actions.

Item 4. Mine Safety Disclosures

None.

PART II. Other Information

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Velodyne common stock and warrants are listed on The Nasdaq Global Select Market under the symbols “VLDR” and “VLDRW”, respectively. Prior to the consummation of the Business Combination, our common stock was listed on the NYSE under the symbol “GRAF.”

Holders

As of March 10, 2021, there were 92 holders of record of our common stock and two holders of record of our warrants.

Dividends

We have not paid any cash dividends on our common stock to date. We may retain future earnings, if any, for future operations, expansion and debt repayment and have no current plans to pay cash dividends for the foreseeable future. Any decision to declare and pay dividends in the future will be made at the discretion of the Board and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions and other factors that the Board may deem relevant. In addition, our ability to pay dividends may be limited by covenants of any existing and future outstanding indebtedness we or our subsidiaries incur. We do not anticipate declaring any cash dividends to holders of our common stock in the foreseeable future.

Unregistered Sales of Equity Securities

None.

Issuer Purchases of Equity Securities

During the three months ended December 31, 2020, neither we nor any of our affiliates repurchased shares of our common stock or warrants registered under Section 12 of the Exchange Act.

Item 6. Selected Financial Data

Not applicable.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

The following discussion of Velodyne’s results of operations and financial condition should be read in conjunction with the information set forth in Velodyne’s financial statements and the notes thereto included elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements based upon our current expectations, estimates and projections that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements due to, among other considerations, the matters discussed under “Cautionary Note Regarding Forward-Looking Statements” and Item 1A: “Risk Factors.”

Overview

Velodyne, the first pure-play lidar company, is a global leader in lidar technology providing real-time 3D vision for autonomous systems. Our lidar solutions are advancing the development of safe automated systems throughout the world, thereby empowering the autonomous revolution by allowing machines to see their surroundings. Our lidar-based smart vision solutions are also deployed in many non-automotive applications, including autonomous mobile robots, UAV/drones, last-mile delivery, precision agriculture, advanced security systems, and smart city initiatives.

We also license our technology and provide development services to customers and business partners. Of the more than 300 customers that purchased smart vision solutions from us and our distributors in the last two fiscal years, approximately 200 are using our smart vision solutions for the non-automotive applications. In 2020, we generated approximately 40% of our revenue from sales to customers deploying our smart vision solutions in non-automotive applications. In addition, we are transitioning from field programmable gate arrays to ASICs in order to further improve performance of our products, lower costs and reduce reliance on any key suppliers.

Impact of COVID-19

The extensive impact of the pandemic caused by the novel coronavirus (“COVID-19”) has resulted and will likely continue to result in significant disruptions to the global economy, as well as businesses and capital markets around the world. In an effort to halt the outbreak of COVID-19, a number of countries, states, counties and other jurisdictions have imposed, and may impose in the future, various measures, including but not limited to, voluntary and mandatory quarantines, stay-at-home orders, travel restrictions, limitations on gatherings of people, reduced operations and extended closures of businesses.

The timing of customer orders and our ability to fulfill orders we received was impacted by various COVID-19 related government mandates across our worldwide operations. We believe that this reduction in units sold was exacerbated by COVID-19. We have also witnessed certain current and prospective customers delaying purchases based on budget constraints or project delays related to COVID-19. While the broader and long-term implications of the COVID-19 pandemic on our workforce, operations and supply chain, customer demand, results of operations and overall financial performance remain uncertain, we continued to experience disruptions to our business due to the COVID-19 pandemic during the fourth quarter of 2020.

The impact of COVID-19 and measures to prevent its spread have been impactful and continue to affect our business in several ways.

- *Our workforce.* Employee health and safety is our priority. In response to COVID-19, we established new protocols to help protect the health and safety of our workforce. The actions include a no-touch temperature scan upon entering our premises and a policy requiring the use of face masks in our facilities. On the production floor of our San Jose, California manufacturing facility, we installed station barriers made of acrylic to separate and protect our workforce. We implemented global travel restrictions and work-from-home policies for employees who can accomplish their work remotely, such as those in the Finance, Marketing, and Communications teams. We continue to stay up-to-date and follow the county and CDC guideline regarding requirements for a healthy work environment.
- *Operations and supply chain.* As a result of COVID-19, we experienced some production delays in the second quarter and early in the third quarter of 2020 due to travel restrictions to Thailand, the location of one of our key manufacturing partners. The factory in San Jose was closed briefly in March 2020, then re-opened with strict health precautions in place. The San Jose factory continued to produce the major lidar products required for the operation

of our business and our manufacturing partners continue to produce lidar sensors on our behalf. In March 2020, we engaged a third party logistics partner that has allowed us to continue to ship finished goods from our San Jose factory. In the fourth quarter of 2020, the San Jose factory confirmed its first case of COVID-19, and further cases have been reported. This reduced production capabilities at our manufacturing sites later in the quarter and impaired our ability to fulfill certain customer orders in December 2020. A substantial portion of these deliveries are expected to be fulfilled in the first quarter of 2021 and we are implementing measures to meet anticipated customer demand in 2021. As part of our COVID-19 mitigation efforts, we performed continuous audits of our supply chain. Early in the pandemic, we learned that certain key suppliers were operating with limited staffing. Although we believe these key suppliers are now back to full staffing and capacity, we identified alternative sources of key suppliers and we are now able to purchase key materials from these alternative sources. Supply chain disruption due to COVID-19 continues to be minimal and we had no resultant parts shortages in the fourth quarter of 2020.

- *Demand for our products.* Demand for our products in the third and fourth quarters of 2020 was less than that in the corresponding period of 2019. We believe that this decline in customer demand was, in part, the result of customers impacted by COVID-19 and delayed purchasing decisions. While we continue to engage with current and potential customers, we believe some customers may delay purchases from us because their development programs may also be delayed as a result of COVID-19. We believe that demand for our products remains strong, but COVID-19 resulted in some transactions we expected to occur earlier in 2020 being delayed until 2021.
- *Positive customer trend in the pandemic.* The global pandemic accelerated a few key robotic programs, which we believe will offset the impact of some of our customers' delayed purchasing decisions. The accelerated programs include robots which disinfect the air and surfaces, providing more sanitized environments, and touchless delivery robots for food and medical supplies.
- *Liquidity, working capital, and the CARES Act.* On March 27, 2020, the U.S. government enacted the CARES Act. On April 8, 2020, we received loan proceeds of \$10.0 million under the CARES Act's Paycheck Protection Program ("PPP") to help us offset delays in production and customer purchases. The principal and accrued interest are forgivable after 24 weeks as long as the borrower uses the loan proceeds for eligible purposes, including payroll, benefits, rent and utilities, and maintains its payroll levels and that approval is received from the relevant government entity. The unforgiven portion of the PPP loan is payable over two years at an interest rate of 1% per annum, with a deferral of interest payments for ten months after the expiration of the 24-week covered period.

See Item 1A: "Risk Factors" for further discussion of the possible impact of COVID-19 on our business.

Factors Affecting Our Performance

Design wins. We are developing our smart vision solutions as a key enabling technology for OEMs in automotive and other applications. Because our solutions must be integrated into a broader platform by the OEM, it is critical that we achieve design wins with these customers. The time necessary to achieve design wins varies based on the market and application. The design cycle in the automotive market tends to be substantially longer and more onerous than in other markets. Even within the automotive market, achieving a design win with an automotive OEM takes considerably longer than a design cycle for an aftermarket application. We consider design wins to be critical to our future success, although the revenue generated by each design win and the time necessary to achieve such a win can vary significantly making it difficult to predict our financial performance.

Pricing, product cost and margins. Our pricing and margins will depend on the volumes and the features of the solutions we provide to our customers. To date, most of our revenue has been generated by selling our smart vision solutions into pre-commercial development phase projects. In general, solutions incorporated into development-phase products require more complex configurations, have higher prices and higher gross margins. As our markets reach maturity and commercialization, we expect prices and margins will generally decrease. Our commercial-stage customers will require that our smart vision solutions be manufactured and sold at per-unit prices that enable mass market adoption. To meet the technological and pricing needs of customers reaching commercial scale, we are making significant investments in new solutions for both cost improvements and new features. Our ability to compete in key markets will depend on the success of these investments and our efforts to efficiently and reliably produce cost-effective smart vision solutions for our commercial-stage customers. We have customers with technologies in various stages of development. We anticipate that our prices will vary by market and application due to market-specific supply and demand dynamics and product lifecycles.

Commercialization of lidar-based applications. Our revenue has been subject to significant fluctuations. Our customers in pre-commercial development phase may have purchased their requirements of our products in earlier periods and are not expected to begin purchasing again in volume unless and until they reach commercial deployments. As a number of our target markets reach commercialization, we expect there to be a shift towards higher unit volume at lower per-unit prices, with more predictable customer demand. We expect that our results of operations, including revenue and gross margins, will continue to fluctuate on a quarterly basis for the foreseeable future as our customers continue research and development projects and begin to commercialize autonomous solutions that rely on lidar technology. As more customers reach the commercialization phase and as the market for lidar solutions matures, these fluctuations in our operating results may become less pronounced. However, in the near term, our revenue may not grow as we expect until more customers commercialize their products.

End market concentration. Historically, our revenue has been from a small number of end markets. For example, in fiscal 2020 and 2019, approximately 57% and 45%, respectively, of our revenue came from the automotive market, although we had more than half of our customers from non-automotive markets. We believe our entry into new markets will continue to facilitate revenue growth and customer diversification. While we will continue to expand the end markets we serve, we anticipate that sales to a limited number of end markets will continue to account for a significant portion of our total revenue for the foreseeable future. Our end market concentration may cause our financial performance to fluctuate significantly from period to period based on the success or failure of the markets in which we compete. Success in an end market, or commercialization, is uncertain and may develop differently in each case, with unique pricing, volume and cost dynamics. Additionally, as production scales in order to meet the demands of commercialization, pricing pressure increases and the amount of that pressure is expected to vary by market.

Sales volume. A typical design win can generate a wide range of sales volumes for our solutions, depending on the end market demand for our customers' products. This can depend on several factors, including the reputation of the end customer, market penetration, product capabilities, size of the end market that the product addresses and our end customers' ability to sell their products. In addition to end market demand, sales volumes also depend on whether our customer is in the development, commercialization or production phase. In certain cases, we may provide volume discounts on sales of our solutions, which may or may not be offset by lower manufacturing costs related to higher volumes.

Continued investment and innovation. We believe that we are the industry-leading lidar provider with proven designs, extensive product offerings and advanced manufacturing capabilities. Our financial performance is significantly dependent on our ability to maintain this leading position. This is further dependent on the investments we make in research and development. It is essential that we continually identify and respond to rapidly evolving customer requirements, develop and introduce innovative new products, enhance and service existing products and generate active market demand for our products. If we fail to do this, our leading market position and revenue may be adversely affected, and our investments in that area will not be recovered.

Components of Results of Operations

Revenue

The majority of our revenue comes from the sale of our lidar sensors directly to end users and through our network of U.S. and international distributors. Product revenue is recognized when control of the products is transferred to the customer, which is generally upon shipment. For custom products that require engineering and development based on customer requirements, revenue is recognized over time using an output method based on units of product shipped to date relative to total production units under the contract. We also generate a portion of our revenue from intellectual property licensing, royalties and the sale of services related to product development, validation, extended warranty and product repair services. License revenue is recognized upon delivery of the intellectual property if there are no substantive future obligations to perform under the arrangement. Royalties are recognized at the later of the period the sales occur or the satisfaction of the performance obligation to which some or all of the royalties have been allocated. As our manufacturing partners to whom we have licensed our technology start selling to customers we expect royalty revenue to increase as a percentage of total revenue. Service revenue is recognized as the services are performed.

Cost of Revenue

Cost of revenue includes the manufacturing cost of our lidar sensors, which primarily consists of personnel-related costs directly associated with our manufacturing organization, and amounts paid to our third-party contract manufacturers and

vendors. Our cost of revenue also includes depreciation and amortization, cost of component inventory, product testing costs, costs of providing services, an allocated portion of overhead, facility and IT costs, warranty costs, excess and obsolete inventory and shipping costs. We expect cost of revenue to increase in absolute dollars in future periods.

Gross Profit and Gross Margin

Our gross profit in future periods will depend on a variety of factors, including: market conditions that may impact our pricing; product mix changes between established products and new products and licenses; excess and obsolete inventories; our cost structure for manufacturing operations, including third-party manufacturers, relative to volume; and product support obligations. Additionally, we believe our transition to an outsourced manufacturing model will favorably impact our gross profit over time. Our gross margin varies by product. In addition, our license revenue has lower cost, and therefore it contributes to higher gross margin. We expect our gross margins to fluctuate over time, depending on the factors described above.

Operating Expenses

Research and Development Expenses

Research and development expenses consist primarily of personnel-related costs directly associated with our research and development organization, with the remainder being prototype expenses, third-party engineering and contractor costs, an allocated portion of facility and IT costs and depreciation. Our research and development efforts are focused on enhancing and developing additional functionality for our existing products and on new product development, including new releases and upgrades to our lidar sensors. We expense research and development costs as incurred. We expect our research and development expenses to increase in absolute dollars as we increase our investment in software development to broaden the capabilities of our solutions and introduce new products and features.

Sales and Marketing Expenses

Our sales and marketing expenses consist primarily of personnel-related costs directly associated with our sales and marketing activities. These include the cost of sales commissions, marketing programs, trade shows, consulting services, promotional materials, demonstration equipment, an allocated portion of facility and IT costs and depreciation. We expect that our sales and marketing expenses will increase in absolute dollars over time as we hire additional sales and marketing personnel, increase our marketing activities, grow our domestic and international operations, and build brand awareness.

General and Administrative Expenses

General and administrative expenses primarily consist of personnel-related expenses associated with our general and administrative organization, professional fees for legal, accounting, and other consulting services, an allocated portion of facility and IT costs and depreciation. We expect to incur additional general and administrative expenses as a result of operating as a public company, including expenses related to compliance with the rules and regulations of the SEC and stock exchange listing standards, additional insurance expenses (including directors' and officers' insurance), investor relations activities and other administrative and professional services. We also expect to increase the size of our general and administrative function to support the growth of our business.

Restructuring Expenses

Restructuring expenses primarily consist of costs of employee termination benefits incurred in connection with our restructuring plan to downsize the manufacturing function and related engineering and administrative functions in our California locations in March 2020. The purposes of this plan are to align resource requirements with our initiatives to lower our cost structure and to increase our production capacity by outsourcing a majority of manufacturing activities. The plan included a reduction of workforce and has been completed as of December 31, 2020.

Stock-Based Compensation

Prior to the Business Combination, our stock-based compensation expense primarily related to our stock options. Compensation expense related to RSAs and RSUs granted under the pre-combination Velodyne's stock incentive plans remained unrecognized because the liquidity event vesting condition, which is (i) an initial public offering, or (ii) a Company

sale event, was not probable of being satisfied. The liquidity-event vesting condition was not satisfied upon the completion of the Business Combination. However, on October 30, 2020, the Board waived such condition applicable to the pre-combination Velodyne RSUs in order to provide the holders of such awards with the treatment that they would have received if the pre-combination Velodyne had completed an initial public offering. As a result of this determination, the Company's outstanding RSUs vested to the extent the applicable service condition was satisfied as of such date. The vesting of these outstanding RSUs on October 30, 2020 resulted in approximately \$77.5 million of incremental stock-based compensation expense in the fourth quarter of 2020. It is anticipated that the Board will waive the liquidity event condition applicable to the RSAs in 2021. If such determination were to occur with respect to the outstanding RSAs before the end of 2021, it is expected that the vesting of such outstanding RSAs would result in approximately \$53.0 million of incremental stock-based compensation expense in the quarter when the determination is made based on the closing price of our common stock on March 10, 2021.

Interest Income and Expense

Interest income consists primarily of income earned on our cash equivalents and investments in marketable securities. These amounts will vary based on our cash, cash equivalents and short-term investment balances, and also with market rates. Interest expense consists primarily of interest on our equipment capital leases and credit facility.

Other Income (Expense), Net

Other income (expense), net consists primarily of foreign currency transaction gains and losses related to the impact of transactions denominated in a foreign currency other than the U.S. Dollar. As we have expanded our international operations, our exposure to fluctuations in foreign currencies has increased, and we expect this to continue.

Provision for Income Taxes

Our provision for income taxes consists of federal, state and foreign current and deferred income taxes. As we expand the scale and scope of our international business activities, any changes in the United States and foreign taxation of such activities may increase our overall provision for income taxes in the future.

We have a full valuation allowance for our net deferred tax assets, including federal and state net operating loss carryforwards and research and development credit carryforwards. We expect to maintain this valuation allowance until it becomes more likely than not that the benefit of our federal and state deferred tax assets will be realized by way of expected future taxable income.

We believe that we have adequately reserved for our uncertain tax positions, although we can provide no assurance that the final outcome of these matters will not be materially different. To the extent that the final outcome of these matters is different than the amounts recorded, such differences will affect the provision for income taxes in the period in which such determination is made and could have a material impact on our financial condition and results of operations.

Critical Accounting Policies and Estimates

We prepare our consolidated financial statements in accordance with U.S. generally accepted accounting principles ("GAAP"). The preparation of these consolidated financial statements requires us to make estimates, assumptions and judgments that can significantly impact the amounts we report as assets, liabilities, revenue, costs and expenses and the related disclosures. We base our estimates on historical experience and other assumptions that we believe are reasonable under the circumstances. Our actual results could differ significantly from these estimates under different assumptions and conditions. We believe that the accounting policies discussed below are critical to understanding our historical and future performance as these policies involve a greater degree of judgment and complexity.

Revenue Recognition

We adopted the requirements of the new revenue recognition standard, known as ASC 606, effective January 1, 2018 utilizing the modified retrospective method of transition. Revenue is recognized upon transfer of control of promised products and to a small extent services to customers in an amount that reflects the consideration that we expect to receive in exchange for those products and services.

We enter into contracts that can include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations; however, determining whether products or services are considered distinct performance obligations that should be accounted for separately versus together may sometimes require significant judgment.

Transaction price is allocated to each performance obligation on a relative standalone selling price (SSP) basis. Judgment is required to determine SSP for each distinct performance obligation. We use a range of amounts to estimate SSP when products and services are sold separately. In instances where SSP is not directly observable, we determine SSP using information that may include other observable inputs available to us.

Accounting for contracts recognized over time under ASC 606 involves the use of various techniques to estimate total contract revenue and costs. Due to uncertainties inherent in the estimation process, it is possible that estimates of costs to complete a performance obligation will be revised in the near-term. We review and update our contract-related estimates regularly, and record adjustments as needed. For those performance obligations for which revenue is recognized using a cost-to-cost input method, changes in total estimated costs, and related progress towards complete satisfaction of the performance obligation, are recognized in the period in which the revisions to the estimates are made.

Changes in judgments with respect to these assumptions and estimates could impact the timing or amount of revenue recognition.

Inventory Valuation

Inventories are stated at the lower of cost or estimated net realizable value. Costs are computed under the standard cost method, which approximates actual costs determined on the first in, first out basis. We record write-downs of inventories which are obsolete or in excess of anticipated demand. Significant judgment is used in establishing our forecasts of future demand and obsolete material exposures. We consider marketability and product life cycle stage, product development plans, component cost trends, demand forecasts, historical revenue, and assumptions about future demand and market conditions in establishing our estimates. If the actual component usage and product demand are significantly lower than forecast, which may be caused by factors within and outside of our control, or if there were a higher incidence of inventory obsolescence because of rapidly changing technology and our customer requirements, we may be required to increase our inventory writedowns. A change in our estimates could have a significant impact on the value of our inventory and our results of operations.

Stock-Based Compensation

Stock-based compensation consists of expense for stock options, RSAs and RSUs granted to employees and nonemployees. We estimate the fair value of stock options granted to employees and directors using the Black-Scholes option pricing model. We estimate the fair value of RSAs and RSUs based on the fair market value of our common stock on the date of grant. For market-based performance RSUs (PRSUs), we use the Monte Carlo simulation model (a binomial lattice-based valuation model) to determine the fair value of the PRSUs. The Monte Carlo simulation model uses multiple input variables to determine the probability of satisfying the market condition requirements. The fair value of the PRSUs is not subject to change based on future market conditions. The fair value of stock options and service-condition awards that are expected to vest is recognized as compensation expense on a straight-line basis over the requisite service period. We recognize forfeitures as they occur.

Under the pre-combination Velodyne equity incentive plans, we granted RSAs and RSUs which vest upon the satisfaction of both a time-based condition and a liquidity event condition. Upon satisfaction of the liquidity event vesting condition, which is the earlier of (i) an IPO, or (ii) a Company sale event, RSAs and RSUs for which the service-based condition has been satisfied will vest immediately, and any remaining unvested RSAs and RSUs will vest over the remaining service period. Prior to the business combination, no compensation expense had been recognized for the RSAs and RSUs because the liquidity vesting condition was not probable of being satisfied. As a result of the Business Combination, on October 30, 2020, the Board of Directors of Velodyne (the "Board") waived the liquidity event vesting condition applicable to the pre-combination Velodyne's RSUs. Therefore, our outstanding RSUs vested to the extent the applicable service condition was satisfied as of such date. The fair value of the RSUs were re-measured based on the closing price of our common stock on October 30, 2020. Stock-based compensation expense for the vested RSUs as of October 30, 2020 was recognized immediately and compensation expense for the unvested RSUs are recognized over the remaining service period. If the Board waives the liquidity event condition applicable to the RSAs, stock-based compensation for the outstanding RSAs

would be recognized in the period when such determination is made based on the fair value of our common stock as of such date.

Recent Accounting Pronouncements

In February 2016, the FASB issued Accounting Standards Update (ASU) 2016-02, Leases (Topic 842), which supersedes FASB Accounting Standards Codification Topic 840, Leases (Topic 840), and provides principles for the recognition, measurement, presentation and disclosure of leases for both lessees and lessors. Among its provisions, this standard requires lessees to recognize right-of-use assets and lease liabilities on the balance sheets for operating leases, and also requires additional qualitative and quantitative disclosures about lease arrangements. Topic 842 is effective for emerging growth companies for fiscal years beginning after December 15, 2020, and interim periods within fiscal years beginning after December 15, 2021. We expect to adopt the new standard in the first quarter of 2021 using the modified retrospective method, under which we will apply Topic 842 to existing and new leases as of January 1, 2021, but prior periods will not be restated and will continue to be reported under Topic 840 guidance in effect during those periods. We are currently evaluating the impact the adoption of these ASUs will have on our financial statements and related disclosures. We expect to recognize a right-of-use asset and corresponding lease liability for the lease portfolio to be recorded on our consolidated balance sheet upon adoption. No material impact is expected with respect to our consolidated statements of operations or cash flows.

In June 2016, the FASB issued ASU 2016-13, Measurement of Credit Losses on Financial Instruments, which has subsequently been amended by ASU No. 2018-19, ASU No. 2019-04, ASU No. 2019-05, and ASU No. 2019-11. The objective of the guidance in ASU 2016-13 is to allow entities to recognize estimated credit losses in the period that the change in valuation occurs. ASU 2016-13 requires an entity to present financial assets measured on an amortized cost basis on the balance sheet net of an allowance for credit losses. Available for sale and held to maturity debt securities are also required to be held net of an allowance for credit losses. For emerging growth companies, the standard is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. Early adoption is permitted. We expect to adopt the new standard in the first quarter of 2023 and are currently evaluating the impact this standard will have on our consolidated financial statements and related disclosures.

In December 2019, the FASB issued ASU 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes. This standard simplifies the accounting for income taxes by, among other things, eliminating certain exceptions related to the approach for intra-period tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. ASU 2019-12 is effective for public business entities for fiscal years beginning after December 15, 2020, with early adoption permitted. Upon adoption, the Company must apply certain aspects of this standard retrospectively for all periods presented while other aspects are applied on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of the beginning of the fiscal year of adoption. The Company expects to adopt the new standard in 2021. The adoption of this new standard is not expected to have a significant effect on our consolidated financial statements.

In October 2020, the FASB issued ASU 2020-10, Codification Improvements, which updates various codification topics by clarifying or improving disclosure requirements to align with the SEC's regulations. ASU 2020-10 is effective for public companies, other than smaller reporting companies, for fiscal years beginning after December 15, 2020. For all other entities, ASU 2020-10 is effective for fiscal years beginning after December 15, 2021, and interim periods beginning after December 15, 2022. We are currently evaluating the impact of adoption of ASU 2020-10 on our consolidated financial statements and related footnote disclosures.

Results of Operations

The results of operations presented below should be reviewed in conjunction with the consolidated financial statements and notes included elsewhere in this prospectus. The following table sets forth our consolidated results of operations data and as a percentage of revenue for the periods presented:

	Year Ended December 31,			Year Ended December 31,		
	2020	2019	2018	2020	2019	2018
	(In thousands)			(As a percentage of total revenue)		
Revenue:						
Product	\$ 68,355	\$ 81,424	\$ 132,933	72 %	80 %	93 %
License and services	27,007	19,974	10,013	28 %	20 %	7 %
Total revenue	95,362	101,398	142,946	100 %	100 %	100 %
Cost of revenue:						
Product	69,115	69,903	111,081	73 %	69 %	77 %
License and services	1,131	1,727	985	1 %	2 %	1 %
Total cost of revenue ⁽¹⁾	70,246	71,630	112,066	74 %	71 %	78 %
Gross profit	25,116	29,768	30,880	26 %	29 %	22 %
Operating expenses ⁽¹⁾:						
Research and development	88,080	56,850	51,993	92 %	56 %	36 %
Sales and marketing	31,753	21,873	22,137	33 %	22 %	16 %
General and administrative	65,732	20,058	12,902	69 %	19 %	9 %
Gain on sale of assets held-for-sale	(7,529)	—	—	(8)%	— %	— %
Restructuring	984	—	—	1 %	— %	— %
Total operating expense	179,020	98,781	87,032	187 %	97 %	61 %
Operating loss	(153,904)	(69,013)	(56,152)	(161)%	(68)%	(39)%
Interest income	152	1,146	630	— %	1 %	— %
Interest expenses	(106)	(77)	(14)	— %	— %	— %
Other income (expense), net	(90)	35	(136)	— %	— %	— %
Loss before income taxes	(153,948)	(67,909)	(55,672)	(161)%	(67)%	(39)%
Provision for (benefit from) income taxes	(4,084)	(683)	6,628	(4)%	(1)%	5 %
Net loss	\$ (149,864)	\$ (67,226)	\$ (62,300)	(157)%	(66)%	(44)%

(1) Includes stock-based compensation expense as follows:

	Year Ended December 31,		
	2020	2019	2018
	(In thousands)		
Cost of revenue	\$ 7,417	\$ —	\$ —
Research and Development	37,030	97	93
Sales and Marketing	14,773	—	—
General and administrative	32,280	38	114
Total stock-based compensation expense	\$ 91,500	\$ 135	\$ 207

Prior to the Business Combination, compensation expense related to RSAs and RSUs granted under the pre-combination Velodyne's stock incentive plans remained unrecognized because the performance vesting condition, which is (i) an initial public offering, or (ii) a Company sale event, was not probable of being met. As a result of the Business Combination, on October 30, 2020, the Board waived the liquidity event vesting condition applicable to the pre-combination Velodyne's RSUs. Therefore, our outstanding RSUs vested to the extent the applicable service condition

was satisfied as of such date. The vesting of these outstanding RSUs on October 30, 2020 resulted in approximately \$77.5 million of incremental stock-based compensation expense in the fourth quarter of 2020. It is anticipated that the Board will waive the liquidity event condition applicable to the RSAs in 2021. If such determination were to occur with respect to the outstanding RSAs, it is expected that the vesting of such outstanding RSAs would result in significant incremental stock-based compensation expense in the quarter when the determination is made based on the closing price of our common stock as of such date.

Comparison of the Years Ended December 31, 2020 and 2019

Revenue

	Year Ended December 31,		Change \$	Change %
	2020	2019		
(Dollars in thousands)				
Revenue:				
Products	\$ 68,355	\$ 81,424	\$ (13,069)	(16)%
License and services	27,007	19,974	7,033	35
Total	<u>\$ 95,362</u>	<u>\$ 101,398</u>	<u>\$ (6,036)</u>	<u>(6)</u>
Revenue by geographic location:				
North America	\$ 41,228	\$ 49,634	\$ (8,406)	(17)%
Asia and Pacific	39,310	28,791	10,519	37
Europe, Middle East and Africa	14,824	22,973	(8,149)	(35)
Total	<u>\$ 95,362</u>	<u>\$ 101,398</u>	<u>\$ (6,036)</u>	<u>(6)</u>

Total revenue decreased by \$6.0 million, or 6%, to \$95.4 million for 2020 from \$101.4 million for 2019. The \$13.1 million decrease in product revenue reflected a decrease of \$36.0 million related to reduction in average selling price for lidar sensors and a decrease of approximately \$3.9 million related to reduction in total units sold as a result of the timing of customer demand related to their programs, partially offset by \$8.9 million increase due to the mix of sensors sold, an increase of \$11.1 million related to a one-time stocking fee, a \$4.1 million one-time refund to a related party customer in September 2019, and an increase of \$2.3 million attributable to higher sales of refurbished units and parts. The timing of customer orders and our ability to fulfill orders we received was impacted by various COVID-19 related government mandates across our worldwide operations. The reduction in average selling price reflected our continued objective to drive additional adoption of our smart vision solutions in multiple end markets. Our revenue has been subject to significant fluctuations. Our customers in pre-commercial development phase may have purchased their requirements of our products in earlier periods and are not expected to begin purchasing again in volume unless and until they reach commercial deployments. As a number of our target markets reach commercialization, we expect there to be a shift towards higher unit volume at lower per-unit prices, with more predictable customer demand. The \$7.0 million increase in license and service revenue primarily reflected a \$12.0 million increase in license revenue driven by the recent cross-license agreements. The increase in license revenue was partially offset by a \$5.0 million decrease in product development and repair services revenue.

The \$8.4 million decrease in North America revenue for 2020 was due to a \$9.0 million reduction in license revenues, plus a decrease of \$6.7 million related to volume decreases due to the timing of customer programs, a decrease of \$12.6 million due to reduction of average selling price of units sold and a decrease of \$1.6 million for repair services, partially offset by an increase of \$5.1 million as a result of the mix of units sold, a \$2.3 million increase in refurbished units sold, an increase of \$3.7 million for engineering services and an increase of \$11.1 million related to a one-time stocking fee. The \$10.5 million increase in Asia-Pacific revenue was primarily due to a \$21.4 million increase in license revenue from our recent patent cross license agreements, a \$4.1 million one-time refund to a related party customer in September 2019, and an increase of approximately \$2.0 million related to volume, partially offset by a decrease of approximately \$10.1 million due to reduction of average selling price of units sold and a \$5.0 million one-time non-recurring engineering fee in June 2019. The \$8.1 million decrease in Europe, Middle East and Africa revenue was due to a decrease of \$13.3 million due to reduction of average selling price, partially offset by an increase of \$0.8 million related to volume and a \$4.5 million increase related to the mix of sensors sold.

Cost of Revenue and Gross Margin

	Year Ended December 31,		Change \$	Change %
	2020	2019		
(Dollars in thousands)				
Cost of revenue:				
Product	\$ 69,115	\$ 69,903	\$ (788)	(1)%
License and services	1,131	1,727	(596)	(35)%
Total cost of revenue	\$ 70,246	\$ 71,630	\$ (1,384)	(2)%
Gross margin	26 %	29 %		

Cost of revenue decreased by \$1.4 million, or 2%, to \$70.2 million for 2020 from \$71.6 million for 2019. The \$0.8 million product cost reduction was primarily driven by decreases of \$11.9 million in factory overhead and direct cost of manufacturing, \$4.0 million reduction in warranty expense and \$1.2 million from lower sales volume, partially offset by increases of \$7.4 million in stock-based compensation, \$3.9 million in excess and obsolete inventory and scrap expenses and \$4.6 million related to product mix. License and services cost of revenue decreased due to a decrease in repair services cost.

Gross margin decreased from 29% for 2019 to 26% for 2020. The decrease in gross margin was primarily due to \$7.4 million stock-based compensation expense. We expect to decrease manufacturing labor and overhead costs as we outsource production to our contract manufacturing partners, with the objective of reducing the per unit cost of revenue.

Operating Expenses

	Year Ended December 31,		Change \$	Change %
	2020	2019		
(Dollars in thousands)				
Research and development	\$ 88,080	\$ 56,850	\$ 31,230	55 %
Sales and marketing	31,753	21,873	9,880	45
General and administrative	65,732	20,058	45,674	228
Gain on sale of assets held-for-sale	(7,529)	—	(7,529)	N/A
Restructuring	984	—	984	N/A
Total operating expenses	\$ 179,020	\$ 98,781	\$ 80,239	81

Research and Development

R&D expenses increased by \$31.2 million, or 55%, to \$88.1 million for 2020 from \$56.9 million for 2019. The increase was primarily due to increases of \$36.9 million in stock-based compensation expense, \$2.3 million in allocated facility and IT expenses, and \$0.6 million in depreciation expense, partially offset by decreases of \$6.8 million in prototype product development costs, \$0.4 million in travel expenses, and \$0.8 million in personnel related costs, mainly driven by manufacturing related restructuring activities.

Sales and Marketing

Sales and marketing expenses increased by \$9.9 million, or 45%, to \$31.8 million for 2020 from \$21.9 million for 2019. The increase was primarily attributable to \$14.8 million stock-based compensation expense, and \$0.2 million increase in commission expense, partially offset by a decrease of \$2.3 million in travel and trade show expenses, a decrease of \$1.1 million in allocated facility and IT expenses, a decrease of \$0.7 million in depreciation expense and a decrease of \$0.7 million in demonstration product expense.

General and Administrative

General and administrative expenses increased by \$45.7 million, or 228%, to \$65.7 million for 2020 from \$20.1 million for 2019. The increase was primarily attributable to increases of \$32.2 million in stock-based compensation expense, \$7.2 million in legal and professional services, \$1.4 million in personnel-related costs, and a \$3.5 million write-off of our deferred initial public offering costs.

Gain on Sale of Assets Held-for-Sale

In March 2020, we reclassified the then carrying value of \$4.7 million related to our Morgan Hill properties previously reported as property, plant and equipment to assets held for sale and included as other current assets in our consolidated balance sheets. On July 2, 2020, we sold the properties to a third-party buyer for \$12.3 million and recorded a gain of \$7.5 million in 2020.

Restructuring

In March 2020, we initiated a restructuring plan to downsize the manufacturing function and related engineering and administrative functions in our California locations. The plan included a reduction in our workforce and has been completed as of December 31, 2020. As a result of the restructuring program, we incurred restructuring charges totaling \$1.0 million for 2020, primarily related to employee severance related costs.

Interest Income, Interest Expense and Other Income (Expense), Net

	Year Ended December 31,		Change \$	Change %
	2020	2019		
	(Dollars in thousands)			
Interest income	\$ 152	\$ 1,146	\$ (994)	(87)%
Interest expense	(106)	(77)	(29)	38
Other expense, net	(90)	35	(125)	(357)

Interest income was \$0.2 million in 2020 compared to \$1.1 million in 2019. The decrease was primarily related to a decrease in our average cash, cash equivalent and short-term investment balances in 2020.

Interest expense was primarily related to our capital leases and was insignificant for all periods presented.

Other income (expense), net was insignificant for all periods presented. The changes were primarily related to foreign exchange gain or loss resulting from foreign currency exchange rate fluctuations during 2020 and 2019.

Income Taxes

	Year Ended December 31,		Change \$	Change %
	2020	2019		
	(Dollars in thousands)			
Loss before income taxes	\$ (153,948)	\$ (67,909)	\$ (86,039)	127 %
Benefit from income taxes	(4,084)	(683)	(3,401)	498 %
Effective tax rate	2.7 %	1.0 %		

We are subject to income taxes in the United States, China and Germany. Our effective tax rate changed from 1.0% in 2019 to 2.7% in 2020. This change was primarily due to the \$6.7 million tax benefit related to the release of a valuation allowance associated with carrying back a portion of our 2019 net operating losses to 2017 that is allowed by the Coronavirus Aid, Relief, and Economic Security (CARES) Act, partially offset by a \$2.5 million tax expense related to a Chinese foreign income withholding tax.

Enacted on March 27, 2020, the CARES Act provides emergency assistance and health care response for businesses affected by the 2020 coronavirus pandemic. The CARES Act, among other things, permits net operating loss carryovers and carrybacks to offset 100% of taxable income for taxable years beginning before 2021. Additionally, the CARES Act allows net operating losses incurred in 2018, 2019 and 2020 to be carried back to each of the five preceding taxable years to generate a refund of previously paid income taxes. In April 2020, we filed a claim to carryback a portion of our 2019 net operating losses to 2017 and received a \$7.1 million tax refund in May 2020. As of December 31, 2020, we had \$173.5 million of U.S. federal and \$105.5 million of state net operating loss carryforwards available to reduce future taxable income, which will be carried forward indefinitely for U.S. federal tax purposes and will expire beginning in 2028 through 2040 for state tax purposes.

Comparison of the Years Ended December 31, 2019 and 2018

Revenue

	Year Ended December 31,		Change \$	Change %
	2019	2018		
(Dollars in thousands)				
Revenue:				
Products	\$ 81,424	\$ 132,933	\$ (51,509)	(39)%
License and services	19,974	10,013	9,961	99
Total	\$ 101,398	\$ 142,946	\$ (41,548)	(29)
Revenue by geographic location:				
North America	\$ 49,634	\$ 84,541	\$ (34,907)	(41)%
Asia and Pacific	28,791	39,770	(10,979)	(28)
Europe, Middle East and Africa	22,973	18,635	4,338	23
Total	\$ 101,398	\$ 142,946	\$ (41,548)	(29)

Total revenue decreased by \$41.5 million, or 29%, to \$101.4 million for 2019, from \$142.9 million for 2018. The product revenue decreased by \$51.5 million and license and service revenue increased by \$10.0 million. The decrease in product revenue was primarily due to a decrease of approximately \$36.3 million, driven by the mix of products sold towards our lower-priced sensors, and a decrease of approximately \$7.8 million related to a reduction in average selling price and a decrease of approximately \$2.5 million driven by lower unit volume. In addition, we issued a \$4.1 million one-time refund to a related party customer in order to compensate them for unforeseen challenges associated with the use of certain new products purchased from us in 2018. Starting in 2018, we strategically reduced the price of our higher volume products to continue to drive additional adoption of our smart vision solutions in multiple end markets. Our overall unit volume remained consistent in 2019 across an increased customer base. The increase in license and services revenue was primarily due to higher services revenue related to product validation and repair services, and to a lesser extent, increases in product licensing related revenue.

The \$34.9 million decrease in North America revenue was due to a decrease of approximately \$18.3 million due to reduction in volume of units sold to existing customers driven by customer program timing, coupled with a decrease of approximately \$14.7 million driven by the mix of products sold towards our lower-priced sensors, and a decrease of approximately \$4.3 million due to decrease in average selling price of units sold, partially offset by an increase of \$2.5 million in license and service revenue. The \$11.0 million decrease in Asia-Pacific revenue was primarily due to a decrease of approximately \$17.5 million due to change in mix of products sold, and a \$4.1 million one-time refund to a related party customer, partially offset by an increase of \$1.6 million related to increased sales volume and an increase of \$6.6 million in services revenues. The \$4.3 million increase in Europe, Middle East and Africa revenue was driven by an increase of approximately \$10.8 million due to an increase in purchasing volume from customers, partially offset by the impact of a decrease of approximately \$4.3 million driven by reduction in average selling price, and a decrease of approximately \$2.1 million driven by a change in mix of products sold.

Cost of Revenue and Gross Margin

	Year Ended December 31,		Change \$	Change %
	2019	2018		
(Dollars in thousands)				
Cost of revenue:				
Product	\$ 69,903	\$ 111,081	\$ (41,178)	(37)%
License and services	1,727	985	742	75 %
Total cost of revenue	\$ 71,630	\$ 112,066	\$ (40,436)	(36)%
Gross margin	29 %	22 %		

Cost of revenue decreased by \$40.4 million, or 36%, to \$71.6 million for 2019, from \$112.1 million for 2018. The decrease in cost of revenue was driven by decrease in \$41.2 million of product revenue and offset by increase in \$0.7 million license and service cost. The decrease of product cost primarily due to an approximately \$8.3 million decrease in product costs resulting from the decrease in product volume and change in product mix during 2019, an approximately \$13.6 million decrease in personnel costs related to manufacturing labor and overhead from manufacturing process improvements, and an approximately \$16.0 million in material cost and utilization savings.

Gross margin increased from 22% for 2018 to 29% for 2019. The increase was primarily due to a change in revenue mix with an increase in license and service revenue, savings on material cost and utilization and increased resource utilization in 2019 resulting from the improvements we made in our manufacturing processes in 2018.

Operating Expenses

	Year Ended December 31,		Change \$	Change %
	2019	2018		
(Dollars in thousands)				
Research and development	\$ 56,850	\$ 51,993	\$ 4,857	9 %
Sales and marketing	21,873	22,137	(264)	(1)
General and administrative	20,058	12,902	7,156	55
Total operating expenses	\$ 98,781	\$ 87,032	\$ 11,749	13

Research and Development

Research and development expenses increased by \$4.9 million, or 9%, to \$56.9 million for 2019, from \$52.0 million for 2018. The increase was primarily attributable to an increase of \$4.7 million in personnel related costs, mainly driven by an increase in employee headcount contributed primarily to the acquisition of Mapper in July 2019, an increase of \$1.9 million in allocated facility and IT expenses, and an increase of \$0.8 million in depreciation expense, partially offset by a decrease of \$3.0 million in prototype product development costs and a decrease of \$0.3 million in professional services.

Sales and Marketing

Sales and marketing expenses decreased by \$0.3 million, or 1%, to \$21.9 million for 2019 from \$22.1 million for 2018. The decrease was primarily attributable to a reduction of \$1.0 million in personnel-related costs, mainly driven by a decrease in employee headcount, a decrease of \$0.2 million in professional services, partially offset by increases of \$0.7 million in demonstration product expenses and \$0.2 million in travel and trade show expenses.

General and Administrative

General and administrative expenses increased by \$7.2 million, or 55%, to \$20.1 million for 2019 from \$12.9 million for 2018. The increase was primarily attributable to an increase of \$7.8 million in legal, accounting and other professional services, partially offset by a decrease of \$0.5 million in personnel-related costs, mainly driven by a decrease in employee headcount, a decrease of \$0.2 million in depreciation and other allocated expenses.

Interest Income, Interest Expense and Other Income (Expense), Net

	Year Ended December 31,		Change \$	Change %
	2019	2018		
(Dollars in thousands)				
Interest income	\$ 1,146	\$ 630	\$ 516	82 %
Interest expense	(77)	(14)	(63)	450
Other income (expense), net	35	(136)	171	(126)

Interest income was \$1.1 million in 2019 compared to \$0.6 million in 2018. The increase was primarily related to an increase in our invested funds due to the proceeds from the Series B and B-1 preferred stock financing completed in September 2018 and October 2019, respectively.

Other income (expense), net was \$35,000 in 2019 compared to \$(136,000) in 2018. The change was primarily related to foreign exchange gain or loss resulting from foreign currency exchange rate fluctuations in 2019 and 2018.

Income Taxes

	Year Ended December 31,		Change \$	Change %
	2019	2018		
	(Dollars in thousands)			
Loss before income taxes	\$ (67,909)	\$ (55,672)	\$ (12,237)	22 %
Provision for (benefit from) income taxes	(683)	6,628	(7,311)	(110)%
Effective tax rate	1.0 %	(11.9)%		

We are subject to income taxes in the United States, China and Germany. Our effective tax rate increased from (11.9)% in 2018 to 1.0% in 2019. This change was primarily due to taxes incurred by foreign subsidiaries and state taxes and partially offset by release of income tax reserves. Due to the change in our valuation allowance on our federal and state deferred tax assets, our provision for income taxes in 2018 includes the effect of establishing a full valuation allowance for the existing net deferred tax assets. We also continue to provide a full valuation allowance on our net deferred tax assets in 2019.

Liquidity and Capital Resources

Sources of Liquidity

As of December 31, 2020, we had cash, cash equivalents and short-term investments totaling \$350.3 million, which were held for working capital purposes. Our cash equivalents and short-term investments are comprised of money market funds, U.S. government and agency securities, corporate debt securities and commercial paper. To date, our principal sources of liquidity have been payments received from sales to customers and the net proceeds we received through the Business Combination, PIPE offering and private placements of the pre-combination Velodyne convertible preferred stock. In 2020, we received \$247.0 million in net proceeds from the Business Combination and PIPE offering on September 29, 2020 and \$73.7 million in net proceeds from the exercises of our warrants. In April 2020 and October 2019, we received \$19.9 million and \$49.8 million, respectively, in net proceeds from the sale of our Series B-1 convertible preferred stock. In 2021, we received an additional \$89.3 million from the exercises of our warrants as of March 10, 2021.

In January 2020, we entered into a loan and security agreement with a financial institution which provides a \$25.0 million revolving line of credit (the "2020 Revolving Line"), as amended in September 2020 and December 2020, with an option to increase the credit limit up to an additional \$15.0 million with the bank's approval (Incremental Revolving Line). As part of the 2020 Revolving Line, there is a letter of credit sublimit of \$5.0 million. The advances under the 2020 Revolving Line bear interest at a rate per annum equal to the prime rate plus an applicable margin of 1.5% for prime rate advances, or LIBOR rate plus an applicable margin of 2.5% for LIBOR advances. The unused revolving line facility fee is 0.15% per annum of the average unused portion of the Revolving Line. In addition, there is a \$50,000 non-refundable commitment fee if we exercise the Incremental Revolving Line option. The revolving line of credit is secured by certain of our assets. The 2020 Revolving Line matured on February 27, 2021 and we intend to extend for one additional year. There were no outstanding borrowings under the 2020 Revolving Line as of December 31, 2020.

On April 8, 2020, we received loan proceeds of \$10.0 million under the CARES Act's Paycheck Protection Program ("PPP"). The principal and accrued interest are forgivable after 24 weeks as long as the borrower uses the loan proceeds for eligible purposes, including payroll, benefits, rent and utilities, and maintains its payroll levels and that approval is received from the relevant government entity. The unforgiven portion of the PPP loan is payable over two years at an interest rate of 1% per annum, with a deferral of interest payments for ten months after the expiration of the 24-week covered period.

On July 2, 2020, we sold our Morgan Hill building to a third-party and received net proceeds of \$12.3 million.

We have incurred negative cash flows from operating activities and significant losses from operations in the past as reflected in our accumulated deficit of \$315.7 million as of December 31, 2020. We expect to continue to incur operating losses at least for the next 12 months due to the investments that we intend to make in our business and, as a result, we may require additional capital resources to grow our business. We believe that current cash, cash equivalents, short-term investments and available borrowing capacity under the revolving credit facility will be sufficient to fund our operations for

at least the next 12 months. Our future capital requirements, however, will depend on many factors, including our lidar sales volume, the timing and extent of spending to support our R&D efforts in smart vision technology, the expansion of sales and marketing activities, and market adoption of new and enhanced products and features. We may in the future enter into arrangements to acquire or invest in complementary businesses, services, and technologies, including intellectual property rights. From time to time, we may seek to raise additional funds through equity and debt. If we are unable to raise additional capital when desired and on reasonable terms, our business, results of operations, and financial condition be adversely affected.

Cash Flow Summary

The following table summarizes our cash flows for the periods presented:

	Year Ended December 31,		
	2020	2019	2018
	(In thousands)		
Net cash provided by (used in):			
Operating activities	\$ (68,437)	\$ (43,230)	\$ (30,503)
Investing activities	(134,527)	29,544	(19,383)
Financing activities	347,726	49,790	44,158

Operating Activities

During 2020, operating activities used \$68.4 million in cash. The primary factors affecting our operating cash flows during this period were our net loss of \$149.9 million, impacted by our non-cash net expense of \$96.6 million primarily consisting of stock-based compensation of \$91.5 million, depreciation and amortization of \$8.4 million, write-off of deferred IPO costs of \$3.5 million and provision for doubtful accounts of \$0.5 million, partially offset by a gain of \$7.5 million from sale of assets held-for-sale. The cash used in changes in our operating assets and liabilities of \$20.6 million which primarily consists of an increase of \$2.6 million in accounts receivable, a decrease of \$6.7 million in accrued expenses and other liabilities due to timing of payments, and an increase of \$11.3 million in unbilled receivables from a licensing arrangement with a customer. These amounts were partially offset by cash provided from changes in our operating assets and liabilities of \$5.4 million was primarily due to an increase of \$9.0 million in contract liabilities primarily due to deferred revenues from a licensing arrangement, partially offset by a decrease of \$6.1 million in customer deposit. The cash provided from changes in our operating assets and liabilities also included a decrease of \$1.6 million in inventories due to decreased sales volume of certain products, a decrease of \$0.2 million in prepaid and other current assets and an increase of \$0.7 million in accounts payable due to timing of payments.

During 2019, operating activities used \$43.2 million in cash. The primary factors affecting our operating cash flows during this period were our net loss of \$67.2 million, impacted by our non-cash charges of \$5.9 million primarily consisting of depreciation and amortization of \$8.0 million, partially offset by deferred income tax of \$2.0 million. The cash provided from changes in our operating assets and liabilities of \$24.3 million was primarily due to an increase of \$13.6 million in accrued expenses and other liabilities due to timing of payments, a decrease of \$9.6 million in accounts receivable and a decrease of \$1.1 million in other noncurrent assets. These amounts were partially offset by cash used in changes in our operating assets and liabilities of \$6.2 million which primarily consists of an increase of \$3.6 million in prepaid expenses and other current assets, a decrease of \$1.7 million in contract liabilities due to the timing of billings and cash received in advance of revenue and an increase of \$0.9 million in inventories due to decreased sales volume of certain products.

During 2018, operating activities used \$30.5 million in cash. The primary factors affecting our operating cash flows during this period were our net loss of \$62.3 million, impacted by our non-cash charges of \$12.9 million primarily consisting of depreciation and amortization of \$6.8 million and deferred income tax of \$5.8 million. The cash provided from changes in our operating assets and liabilities of \$28.0 million was primarily due to a decrease in inventories of \$21.3 million as we consumed previously purchased inventory, an increase in contract liabilities of \$4.3 million due to the timing of billings and cash received in advance of revenue and a decrease in accounts receivable of \$2.4 million. These amounts were partially offset by cash used in changes in our operating assets and liabilities of \$9.0 million which primarily consists of decreases of \$4.4 million in accounts payable and \$2.4 million in accrued expenses and other liabilities due to timing of payments, and an increase of \$1.3 million in prepaid expenses and other current assets.

Investing Activities

During 2020, cash used in investing activities was \$134.5 million, which was primarily used to purchase short-term investments of \$145.7 million and purchase property, plant and equipment of \$3.3 million, partially offset by proceeds from the sale of our Morgan Hill building of \$12.3 million and sales and maturities of short-term investments of \$2.2 million.

During 2019, cash provided by investing activities was \$29.5 million, which was primarily from sales and maturities of short-term investments of \$62.6 million and proceeds from repayment of notes receivable from stockholders of \$3.5 million, partially offset by cash used to purchase short-term investments of \$28.8 million, purchase property, plant and equipment of \$5.2 million and to acquire Mapper of \$2.5 million.

During 2018, cash used in investing activities was \$19.4 million, which was primarily used to purchase short-term investments of \$35.3 million and purchase property, plant and equipment of \$6.9 million, partially offset by sales and maturities of short-term investments of \$20.8 million and proceeds from the cancellation of corporate-owned life insurance policies of \$2.1 million.

Our machinery and equipment is depreciated over a useful life of approximately five years.

Financing Activities

During 2020, cash provided by financing activities was \$347.7 million, consisting primarily of net proceeds of \$247.0 million from the Business Combination and PIPE offering, \$73.7 million from exercises of public warrants, \$19.9 million from issuance of preferred stock and proceeds of \$10.0 million from the PPP loan, partially offset by \$1.1 million cash paid for IPO costs and \$1.8 million cash paid for repurchases of common stock.

During 2019, cash provided by financing activities was \$49.8 million consisting of net proceeds from the issuance of Series B-1 preferred stock in October 2019.

During 2018, cash provided by financing activities was \$44.2 million consisting of net proceeds of \$46.7 million from the issuance of Series B preferred stock in September 2018, partially offset by \$2.5 million use of cash to repurchase our common stock.

Off-Balance Sheet Arrangements

As of December 31, 2020, we have not entered into any off-balance sheet arrangements and do not have any holdings in variable interest entities.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risks in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily the result of fluctuations in interest rates and foreign currency exchange rates.

We do not believe that inflation has had a material effect on our business, results of operations or financial condition. Nonetheless, if our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs. Our inability or failure to do so could harm our business, results of operations or financial condition.

Interest Rate Risk

As of December 31, 2020, we had cash, cash equivalents and short-term investments of approximately \$350.3 million, which are comprised of money market funds, U.S. government and agency securities, corporate debt securities and commercial paper, which carries a degree of interest rate risk. A hypothetical 10% change in interest rates would not have a material impact on our financial condition or results of operations due to the short-term nature of our investment portfolio.

Foreign Currency Exchange Risk

Our results of operations and cash flows are subject to fluctuations due to changes in foreign currency exchange rates. Substantially all of our revenue is generated in U.S. dollars. Our expenses are generally denominated in the currencies of the jurisdictions in which we conduct our operations, which are primarily in the U.S. and to a lesser extent in Asia and Europe. Our results of operations and cash flows are, therefore, subject to fluctuations due to changes in foreign currency exchange rates and may be adversely affected in the future due to changes in foreign exchange rates. The effect of a hypothetical 10% change in foreign currency exchange rates applicable to our business would not have a material impact on our historical consolidated financial statements. To date, we have not engaged in any hedging strategies. As our international operations grow, we will continue to reassess our approach to manage our risk relating to fluctuations in currency rates.

Item 8. Financial Statements and Supplementary Data

Velodyne Lidar, Inc.

Index to Consolidated Financial Statements

	Page
Report of Independent Registered Public Accounting Firm	55
Consolidated Balance Sheets	56
Consolidated Statements of Operations	57
Consolidated Statements of Comprehensive Loss	58
Consolidated Statements of Stockholders' Equity	59
Consolidated Statements of Cash Flows	60
Notes to Consolidated Financial Statements	61

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Velodyne Lidar, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Velodyne Lidar, Inc. and subsidiaries (the Company) as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor since 2015.

Santa Clara, California
March 16, 2021

VELOCITYNE LIDAR, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share data)

	December 31,	
	2020	2019
Assets		
Current assets:		
Cash and cash equivalents	\$ 204,648	\$ 60,004
Short-term investments	145,636	2,199
Accounts receivable, net	13,979	11,863
Inventories, net	18,132	14,987
Prepaid and other current assets	22,319	12,918
Total current assets	404,714	101,971
Property, plant and equipment, net	16,805	26,278
Goodwill	1,189	1,189
Intangible assets, net	627	982
Contract assets	8,440	—
Other assets	937	5,755
Total assets	\$ 432,712	\$ 136,175
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 7,721	\$ 6,923
Accrued expense and other current liabilities	50,349	31,160
Contract liabilities	7,323	18,261
Total current liabilities	65,393	56,344
Long-term tax liabilities	569	1,360
Other long-term liabilities	25,927	2,225
Total liabilities	91,889	59,929
Commitments and contingencies (Note 15)		
Stockholders' equity:		
Preferred stock, \$0.0001 par value; 25,000,000 shares authorized, zero shares issued and outstanding	—	—
Common stock, \$0.0001 par value; 2,250,000,000 shares authorized; 175,912,194 and 137,911,975 shares issued and outstanding as of December 31, 2020 and 2019, respectively	18	14
Additional paid-in capital	656,717	240,464
Accumulated other comprehensive loss	(230)	(216)
Accumulated deficit	(315,682)	(164,016)
Total stockholders' equity	340,823	76,246
Total liabilities and stockholders' equity	\$ 432,712	\$ 136,175

See accompanying notes to consolidated financial statements.

VELOCITYNE LIDAR, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except share and per share data)

	Year Ended December 31,		
	2020	2019	2018
Revenue:			
Product	\$ 68,355	\$ 81,424	\$ 132,933
License and services	27,007	19,974	10,013
Total revenue	95,362	101,398	142,946
Cost of revenue:			
Product	69,115	69,903	111,081
License and services	1,131	1,727	985
Total cost of revenue	70,246	71,630	112,066
Gross profit	25,116	29,768	30,880
Operating expenses:			
Research and development	88,080	56,850	51,993
Sales and marketing	31,753	21,873	22,137
General and administrative	65,732	20,058	12,902
Gain on sale of assets held-for-sale	(7,529)	—	—
Restructuring	984	—	—
Total operating expenses	179,020	98,781	87,032
Operating loss	(153,904)	(69,013)	(56,152)
Interest income	152	1,146	630
Interest expense	(106)	(77)	(14)
Other income (expense), net	(90)	35	(136)
Loss before income taxes	(153,948)	(67,909)	(55,672)
Provision for (benefit from) income taxes	(4,084)	(683)	6,628
Net loss	\$ (149,864)	\$ (67,226)	\$ (62,300)
Net loss per share:			
Basic and diluted	\$ (1.01)	\$ (0.50)	\$ (0.48)
Weighted-average shares used in computing net loss per share:			
Basic and diluted	148,088,589	133,942,714	129,948,023

See accompanying notes to consolidated financial statements.

VELOCITYNE LIDAR, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In thousands)

	Year Ended December 31,		
	2020	2019	2018
Net loss	\$ (149,864)	\$ (67,226)	\$ (62,300)
Other comprehensive income (loss), net of tax:			
Changes in unrealized gain on available for sale securities	(60)	17	10
Foreign currency translation adjustments	46	(85)	(128)
Total other comprehensive loss, net of tax	(14)	(68)	(118)
Comprehensive loss	\$ (149,878)	\$ (67,294)	\$ (62,418)

See accompanying notes to consolidated financial statements.

VELOCITYNE LIDAR, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands, except share and per share data)

	Series A Convertible Preferred Stock (Pre-Combination)		Series B Convertible Preferred Stock (Pre-Combination)		Series B-1 Convertible Preferred Stock (Pre-Combination)		Common Stock (Pre-Combination)		Common Stock (Post-Combination)		Additional Paid in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at December 31, 2017, as previously reported	8,772,852	\$ 1	—	\$ —	—	\$ —	34,325,728	\$ 3	—	\$ —	\$ 143,525	\$ (30)	\$ (32,020)	\$ 111,479
Retroactive application of the recapitalization	(8,772,852)	(1)	—	—	—	—	(34,325,728)	(3)	128,373,764	13	(9)	—	—	—
Balance at December 31, 2017, as adjusted	—	—	—	—	—	—	—	—	128,373,764	13	143,516	(30)	(32,020)	111,479
Issuance of Series B convertible preferred stock on September 4, 2018, net of issuance cost of \$3,182	—	—	—	—	—	—	—	—	4,878,048	—	46,817	—	—	46,817
Repurchase of common stock	—	—	—	—	—	—	—	—	(217,885)	—	—	—	(2,659)	(2,659)
Share-based compensation	—	—	—	—	—	—	—	—	—	—	207	—	—	207
Other comprehensive loss, net of tax	—	—	—	—	—	—	—	—	—	—	—	(118)	—	(118)
Cumulative effect of changes in accounting policy	—	—	—	—	—	—	—	—	—	—	—	—	189	189
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	(62,300)	(62,300)
Balance at December 31, 2018, as adjusted	—	—	—	—	—	—	—	—	133,033,927	13	190,540	(148)	(96,790)	93,615
Issuance of Series B-1 convertible preferred stock on October 26, 2019, net of issuance cost of \$210	—	—	—	—	—	—	—	—	4,878,048	1	49,789	—	—	49,790
Share-based compensation	—	—	—	—	—	—	—	—	—	—	135	—	—	135
Other comprehensive loss, net of tax	—	—	—	—	—	—	—	—	—	—	—	(68)	—	(68)
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	(67,226)	(67,226)
Balance at December 31, 2019, as adjusted	—	—	—	—	—	—	—	—	137,911,975	14	240,464	(216)	(164,016)	76,246
Issuance of Series B-1 convertible preferred stock on April 1, 2020, net of issuance cost of \$81	—	—	—	—	—	—	—	—	1,951,219	—	19,919	—	—	19,919
Recapitalization transaction, net of transaction cost of \$29,100	—	—	—	—	—	—	—	—	29,025,846	3	222,100	—	—	222,103
Repurchase of common stock	—	—	—	—	—	—	—	—	(175,744)	—	—	—	(1,802)	(1,802)
Issuance of common stock under warrant exercises, net of issuance cost of \$52	—	—	—	—	—	—	—	—	7,198,898	1	82,734	—	—	82,735
Share-based compensation	—	—	—	—	—	—	—	—	—	—	91,500	—	—	91,500
Other comprehensive loss, net of tax	—	—	—	—	—	—	—	—	—	—	—	(14)	—	(14)
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	(149,864)	(149,864)
Balance at December 31, 2020	—	\$ —	—	\$ —	—	\$ —	—	\$ —	175,912,194	\$ 18	\$ 656,717	\$ (230)	\$ (315,682)	\$ 340,823

See accompanying notes to consolidated financial statements.

VELOCITYNE LIDAR, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,		
	2020	2019	2018
Cash flows from operating activities:			
Net loss	\$ (149,864)	\$ (67,226)	\$ (62,300)
Adjustments to reconcile net loss to cash used in operating activities:			
Depreciation and amortization	8,394	7,993	6,791
Write-off of deferred IPO costs	3,548	—	—
Stock-based compensation	91,500	135	207
Gain on sale of assets held-for-sale	(7,529)	—	—
Provision for doubtful accounts	511	110	77
Deferred income taxes	4	(1,941)	5,845
Other	137	(358)	(65)
Changes in operating assets and liabilities:			
Accounts receivable, net	(2,627)	9,573	2,446
Inventories, net	1,619	(850)	21,280
Prepaid and other current assets	172	(3,602)	(1,325)
Contract assets	(11,253)	38	(38)
Other assets	53	1,080	(939)
Accounts payable	687	(45)	(4,391)
Accrued expenses and other liabilities	(6,680)	13,609	(2,356)
Contract liabilities	2,891	(1,746)	4,265
Net cash used in operating activities	(68,437)	(43,230)	(30,503)
Cash flows from investing activities:			
Purchase of property, plant and equipment	(3,277)	(5,225)	(6,886)
Proceeds from sale of assets held-for-sale	12,275	—	—
Proceeds from sales of short-term investments	—	8,903	7,993
Proceeds from maturities of short-term investments	2,200	53,650	12,777
Purchase of short-term investments	(145,725)	(28,823)	(35,331)
Considerations paid for acquisition	—	(2,473)	—
Proceeds from repayment of stockholder notes	—	3,512	—
Proceeds from cancellation of corporate-owned life insurance policies	—	—	2,064
Net cash provided by (used in) investing activities	(134,527)	29,544	(19,383)
Cash flows from financing activities:			
Proceeds from issuance of preferred stock, net of issuance costs of \$81, \$210 and \$3,342 for 2020, 2019 and 2018, respectively	19,919	49,790	46,658
Proceeds from Business Combination and PIPE offering, net of transaction costs of \$4,095	247,039	—	—
Repurchase of common stock	(1,802)	—	(2,500)
Proceeds from warrant exercises, net of transaction costs of \$52	73,713	—	—
Cash paid for IPO costs	(1,143)	—	—
Proceeds from notes payable	10,000	—	—
Net cash provided by financing activities	347,726	49,790	44,158
Effect of exchange rate fluctuations on cash and cash equivalents	(118)	(4)	(128)
Net increase in cash and cash equivalents	144,644	36,100	(5,856)
Beginning cash and cash equivalents	60,004	23,904	29,760
Ending cash and cash equivalents	\$ 204,648	\$ 60,004	\$ 23,904
Supplemental disclosures of cash flow information:			
Cash paid for interest	\$ 106	\$ 77	\$ 14
Cash paid for (received from) income taxes, net	(7,800)	545	2,412
Supplemental disclosure of noncash investing and financing activities:			
Changes in accrued purchases of property, plant and equipment	\$ 145	\$ (115)	\$ (417)
Transaction costs included in accrued liabilities	25,057	—	—

See accompanying notes to consolidated financial statements.

VELOCITYNE LIDAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements

Note 1. Description of Business and Summary of Significant Accounting Policies

Description of Business, Background and Nature of Operations

Velodyne Lidar, Inc. (the Company, Velodyne or Velodyne Lidar) provides smart vision solutions that are advancing the development of safe automated systems throughout the world. The Company's technology, which is used in various automotive and non- automotive applications, is empowering the autonomous revolution by allowing machines to see their surroundings in real-time and in 3D.

Graf Industrial Corp. (Graf), the Company's predecessor, was originally incorporated in Delaware as a special purpose acquisition company. On September 29, 2020 (the Closing Date), Graf consummated a business combination (the Business Combination) pursuant to an Agreement and Plan of Merger dated as of July 2, 2020, as amended on August 20, 2020 and clarified in an Acknowledgement Letter dated as of the same day (the Merger Agreement) by and among Graf, VL Merger Sub Inc., a wholly owned subsidiary of Graf, and Velodyne Lidar, Inc. (the pre-combination Velodyne). Immediately upon the consummation of the Business Combination, VL Merger Sub Inc. merged with and into the pre-combination Velodyne, with the pre-combination Velodyne surviving the merger as a wholly owned subsidiary of the Company. Graf changed its name to Velodyne Lidar, Inc. and the pre-combination Velodyne changed its name to Velodyne Lidar USA, Inc.

On September 30, 2020, Velodyne Lidar's common stock and warrants began trading on the Nasdaq Global Select Market under the symbol "VLDR" and "VLDRW," respectively. Unless the context otherwise requires, "we," "us," "our," "Velodyne," "Velodyne Lidar" and the "Company" refers to Velodyne Lidar Inc., the combined company and its subsidiaries following the Business Combination. Refer to Note 2 for further discussion of the Business Combination.

The Company has evaluated how it is organized and managed and has identified only one operating segment.

Basis of Presentation

The Business Combination is accounted for as a reverse recapitalization as the pre-combination Velodyne was determined to be the accounting acquirer under Financial Accounting Standards Board (FASB)'s Accounting Standards Codification Topic 805, Business Combinations (ASC 805). The determination is primarily based on the evaluation of the following facts and circumstances:

- the equity holders of the pre-combination Velodyne hold the majority of voting rights in the Company;
- the board of directors of the pre-combination Velodyne represent majority of the board of directors of the Company;
- the senior management of the pre-combination Velodyne became the senior management of the Company; and
- the operations of the pre-combination Velodyne comprise the ongoing operations of the Company.

In connection with the Business Combination, outstanding capital stock of the pre-combination Velodyne was converted into common stock of the Company, par value \$0.0001 per share, representing a recapitalization, and the net assets of the Company were acquired at historical cost, with no goodwill or intangible assets recorded. The pre-combination Velodyne was deemed to be the predecessor of the Company, and the consolidated assets and liabilities and results of operations prior to the Closing Date are those of the pre-combination Velodyne. The shares and corresponding capital amounts and net loss per share available to common stockholders, prior to the Business Combination, have been retroactively restated as shares reflecting the exchange ratio established in the Merger Agreement. The number of shares of preferred stock was also retroactively restated in shares reflecting the exchange ratio, and the carrying amounts of preferred stock are based on the fair value of its redemption amount on each reporting date. All preferred stock was converted into shares of the Company's common stock on the Closing Date. Refer to Note 9, Stockholders' Equity, and Note 11, Net Loss Per Share, for further discussion of the recapitalization and share adjustments.

Principles of Consolidation and Liquidity

The consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). The consolidated financial statements include the accounts of the Company's wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

The Company has funded its operations primarily through the Business Combination, issuances of preferred stock and sales to customers. As of December 31, 2020, the Company's existing sources of liquidity included cash and cash equivalents of \$350.3 million and available borrowing capacity of \$25.0 million under a revolving credit facility. The Company has incurred losses and negative cash flows from operations. If the Company incurs additional losses in the future, it may need to raise additional capital through issuances of equity and debt. However, management believes that the Company's existing sources of liquidity are adequate to fund its operations for at least one year from the date the audited consolidated financial statements were available for issuance.

Emerging Growth Company

The Company is an "emerging growth company," as defined in Section 2(a) of the Securities Act, as modified by the Jumpstart Our Business Startups Act of 2012 (the JOBS Act), and it may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, reduced disclosure obligations regarding executive compensation in its periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

Further, Section 102(b)(1) of the JOBS Act exempts emerging growth companies from being required to comply with new or revised financial accounting standards until private companies are required to comply with the new or revised financial accounting standards. The JOBS Act provides that an emerging growth company can elect to opt out of the extended transition period and comply with the requirements that apply to non-emerging growth companies but any such election to opt out is irrevocable. The Company has opted to take advantage of such extended transition period available to emerging growth companies which means that when a standard is issued or revised and it has different application dates for public or private companies, the Company, as an emerging growth company, can adopt the new or revised standard at the time private companies adopt the new or revised standard. This may make comparison of the Company's financial statements with another public company which is neither an emerging growth company nor an emerging growth company which has opted out of using the extended transition period difficult or impossible because of the potential differences in accounting standards used.

Concentration of Risk

Financial instruments that subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, short-term investments, and accounts receivable. The Company maintains its cash and cash equivalents, and short-term investments with high-quality financial institutes with investment-grade ratings. A majority of the cash balances are with U.S. banks and are insured to the extent defined by the Federal Deposit Insurance Corporation.

The Company's accounts receivable are derived from customers located both inside and outside the U.S. The Company mitigates its credit risks by performing ongoing credit evaluations of its customers' financial conditions and requires customer advance payments in certain circumstances. The Company does not require collateral.

The Company's concentration of risk related to accounts receivable and accounts payable was as follows:

	December 31,	
	2020	2019
Number of customers accounted for 10% or more of accounts receivable	3	3
Number of vendors accounted for 10% or more of accounts payable	3	2

Two customers accounted for 47% of the Company's accounts receivable as of December 31, 2020. One vendor accounted for 34% and 36% of accounts payable as of December 31, 2020 and December 31, 2019.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Significant items subject to such estimates and assumptions include standalone selling price (SSP) for each distinct performance obligation in its customer contracts, total estimated future patents and their corresponding estimated development costs, total estimated costs and related progress towards complete satisfaction of performance obligation in certain services arrangements, allowances for doubtful accounts, inventory reserves, warranty reserves, valuation allowance for deferred tax assets, stock-based compensation, useful lives of property, plant, and equipment and intangible assets, income tax uncertainties, and other loss contingencies. The Company bases its estimates on historical experience and also on assumptions that it believes are reasonable. Actual results could differ from those estimates, and such differences could be material to the Company's consolidated financial condition and results of operations.

Reclassification

Certain prior year balance sheet amounts have been reclassified to conform with current year presentation.

Cash Equivalents and Short-Term Investments

The Company considers all highly liquid investments with original maturity of three months or less at date of purchase to be cash equivalents. Cash equivalents were \$129.4 million and \$44.7 million as of December 31, 2020 and December 31, 2019, respectively.

Short-term investments generally consist of commercial paper and corporate debt securities. Short-term investments were \$145.6 million and \$2.2 million as of December 31, 2020 and December 31, 2019, respectively. They are classified as available-for-sale securities and are recognized at fair value. Unrealized gains and losses, net of tax, are reported as a separate component of accumulated other comprehensive loss within the stockholders' equity. Unrealized gains and losses on the Company's short-term investments were not significant as of December 31, 2020 and December 31, 2019 and therefore, the amortized cost of the Company's short-term investments approximated their fair value.

Accounts Receivable

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. Accounts receivable are reduced by an allowance for doubtful accounts, which is the Company's best estimate of the amount of credit losses inherent in its existing accounts receivable. In establishing the required allowance, management considers historical losses adjusted to take into account current market conditions and customers' financial condition, the amount of receivables in dispute, and the current receivables aging and current payment patterns. The Company writes off accounts receivable against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote.

Changes in the Company's allowance for doubtful accounts were as follows (in thousands):

	December 31,	
	2020	2019
Beginning balance	\$ 467	\$ 357
Charged to costs and expenses	511	110
Uncollectible accounts written off, net of recoveries	(102)	—
Ending balance	<u>\$ 876</u>	<u>\$ 467</u>

The Company does not have any off-balance-sheet credit exposure related to its customers.

Inventories

Inventories are stated at the lower of cost or estimated net realizable value. Costs are computed under the standard cost method, which approximates actual costs determined on the first-in, first-out basis. The Company charges cost of revenue for write-downs of inventories which are obsolete or in excess of anticipated demand based on a consideration of marketability and product life cycle stage, product development plans, component cost trends, demand forecasts, historical revenue, and assumptions about future demand and market conditions. The net change in the Company's inventory reserve was \$(0.7) million, \$(1.8) million and \$1.2 million, respectively, for 2020, 2019 and 2018. The estimated cost of inventories not expected to be used in production within one year is reflected in other assets in the consolidated balance sheets.

Property, Plant, and Equipment

Property, plant, and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization is calculated based on the straight-line method over the estimated useful lives of the respective assets. Additions, major improvements and betterments are capitalized, and maintenance and repairs are expensed as incurred. Assets are held in asset under construction until placed in service, upon which date, the Company begins to depreciate the assets over their estimated useful lives. The estimated useful lives of the assets are as follows: buildings, 15-30 years; building improvements, 7-15 years, leasehold improvements, the lesser of 5 years or the lease term; machinery and equipment, furniture and fixtures, vehicles and software, 3-5 years.

Assets Held for Sale

The Company considers assets to be held for sale when management approves and commits to a plan to actively market the assets for sale at a reasonable price in relation to its fair value, the assets are available for immediate sale in their present condition, an active program to locate a buyer and other actions required to complete the sale have been initiated, the sale of the assets is expected to be completed within one year and it is unlikely that significant changes will be made to the plan. Upon designation as held for sale, the Company ceases to record depreciation expenses and measures the assets at the lower of their carrying value or estimated fair value less costs to sell. Assets held for sale are included as other current assets in the Company's consolidated balance sheets and the gain or loss from sale of assets held for sale is included in the Company's operating expenses.

Business Combinations

For acquisitions meeting the definition of a business combination, the acquisition method of accounting is used. The acquisition date is the date on which the Company obtains operating control over the acquired business. The consideration paid is determined on the acquisition date and the acquisition-related costs, such as professional fees, are excluded from the consideration transferred and are expensed as incurred. Assets acquired and liabilities assumed by the Company are recorded at their estimated fair values, while goodwill is measured as the excess of the consideration transferred over the fair value of the net identifiable assets acquired and liabilities assumed.

Goodwill

Goodwill represents the difference between the purchase price and the fair value of the identifiable tangible and intangible net assets acquired and liabilities assumed when accounted for using the purchase method of accounting. Goodwill is not amortized, but reviewed for impairment. Goodwill is reviewed annually in the fourth quarter, and whenever events or changes in circumstances indicate that the carrying value of the goodwill may not be recoverable. When evaluating recoverability, the Company compares the fair value of the reporting unit to its carrying value. If the carrying value of the net assets assigned to the reporting unit exceeds the fair value of our reporting unit, the Company would record an impairment loss equal to the difference.

Long-Lived Assets

Long-lived assets, such as property, plant and equipment, intangible assets and other long-term assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If circumstances require a long-lived asset or asset group be tested for possible impairment, the Company first compares undiscounted cash flows expected to be generated by that asset or asset group to its carrying amount. If the carrying amount of the long-lived asset or asset group is not recoverable on an undiscounted cash flow basis, an impairment is recognized to the extent that the carrying amount exceeds its fair value. Fair value is determined using various valuation techniques including discounted cash flow models, quoted market values, as considered necessary. No impairment loss was recognized for all years presented.

Foreign Currency

The U.S. dollar is the functional currency of the Company's consolidated entities operating in the U.S. and certain of its subsidiaries operating outside of the U.S. For transactions entered into a currency other than its functional currency, the monetary assets and liabilities are re-measured into U.S. dollars at the current exchange rate as of the applicable balance sheet date, and all non-monetary assets and liabilities are re-measured at historical rates. Income and expenses are re-measured at

the average exchange rate prevailing during the period. Gains and losses resulting from the re-measurement of these subsidiaries' financial statements are included in the consolidated statements of operations.

For foreign subsidiaries whose functional currency is the local currency, assets and liabilities are translated at the local current exchange rates in effect at the balance sheet date, and income and expense accounts are translated at the average exchange rates during the period. The resulting translation adjustments are included in accumulated other comprehensive loss.

Gains and losses resulting from foreign exchange transactions and revaluation of monetary assets and liabilities in non-functional currencies are included in other income (expense) in the consolidated statements of operations. Net foreign exchange gain (loss) recorded in the Company's consolidated statements of operations was insignificant for all periods presented.

Revenue Recognition

The Company accounts for a contract with a customer when both parties have approved the contract and are committed to perform their respective obligations, each party's rights can be identified, payment terms can be identified, the contract has commercial substance, and it is probable that the Company will collect substantially all of the consideration it is entitled to. Revenue is recognized when, or as, performance obligations are satisfied by transferring control of a promised product or service to a customer.

Nature of Products and Services and Revenue Recognition

The majority of the Company's revenue comes from product sales of lidar sensors to direct customers and distributors. Revenue is recognized at a point in time when control of the goods are transferred to the customer, generally occurring upon shipment or delivery dependent upon the terms of the underlying contract. Product sales to certain customers may require customer acceptance due to performance acceptance criteria that is considered more than a formality. For these product sales, revenue is recognized upon the expiration of the customer acceptance period. For custom products that require engineering and development based on customer requirements, the Company recognizes revenue over time using an output method based on units of product shipped to date relative to total production units under the contract. Amounts billed to customers for shipping and handling are included in revenue. Taxes collected from customers and remitted to governmental authorities are excluded from revenue on the net basis of accounting. Accounts receivable are due under normal trade terms, typically 60 days or less.

The Company's license and services revenue consist primarily of product development, validation and repair services, intellectual property (IP) license and royalties revenue. The obligation to provide services is generally satisfied over time, with the customer simultaneously receiving and consuming the benefits as the Company satisfies its performance obligations. For product development and validation service projects, the Company bills and recognizes revenue as the services are performed. For these arrangements, control is transferred over as the Company's inputs incurred to complete the project; therefore, revenue is recognized over the service period with the measure of progress using the input method based on labor costs incurred to total labor cost (cost-to-cost) as the services are provided. For product repair service, revenue is recognized when the repair services are complete and repaired products are shipped to customer.

The Company licenses rights to its IP to certain customers and collects royalties based on customer's product sales. IP revenue recognition is dependent on the nature and terms of each agreement. The Company recognizes license revenue upon delivery of the IP if there are no substantive future obligations to perform under the arrangement. Contract liabilities are recorded when license payments received from licensees relating to long-term license contracts for which the Company has future obligations under the license agreements. The Company classifies contract liabilities as current if the Company expects to recognize the related revenue over the next 12 months from the balance sheet date. Royalties from the license of IP are recognized at the later of the period the sales occur or the satisfaction of the performance obligation to which some or all of the royalties have been allocated.

Arrangements with Multiple Performance Obligations

When a contract involves multiple performance obligations, the Company accounts for individual products and services separately if the customer can benefit from the product or service on its own or with other resources that are readily available to the customer and the product or service is separately identifiable from other promises in the arrangement. The consideration is allocated between separate performance obligations in proportion to their estimated standalone selling price (SSP). The SSP reflects the price the Company would charge for a specific product or service if it were sold separately in similar circumstances and to similar customers. If the selling price is not directly observable, the Company generally uses the

cost plus margin approach to estimate SSP. For patent cross-license arrangements, the Company estimates the SSP of the patents based on historical or forecasted development costs for existing and future patents granted or to be granted to customers. Costs related to products delivered are recognized in the period revenue is recognized.

The Company provides standard product warranties for a term of typically one year to ensure that its products comply with agreed-upon specifications. Standard warranties are considered to be assurance type warranties and are not accounted for as separate performance obligations. Please see Product Warranty for accounting policy on standard warranties. The Company also provides service type extended warranties for an additional term ranging up to two additional years. For service type extended warranty contracts, the Company allocates revenue to this performance obligation on a relative standalone selling price basis and recognizes the revenue ratably over time during the effective period of the services.

Other Policies, Judgments and Practical Expedients

Costs to obtain a contract. The Company generally expenses the incremental costs of obtaining a contract when incurred because the amortization period for these costs would be less than one year. These costs primarily relate to sales commissions and are recorded at the time of the customer order or product shipment in sales and marketing expense in the Company's consolidated statements of operations. Commission expense was \$0.7 million, \$0.5 million and \$0.5 million, respectively, for 2020, 2019 and 2018.

Right of return. The Company's general terms and conditions for its contracts do not contain a right of return that allows the customer to return products and receive a credit. Therefore the Company does not estimate returns and generally recognizes revenue at contract price upon product shipment or delivery.

Remaining performance obligations. Revenue allocated to remaining performance obligations represents the transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied. It includes unearned revenue and amounts that will be invoiced and recognized as revenue in future periods and does not include contracts where the customer is not committed. The customer is not considered committed where they are able to terminate for convenience without payment of a substantive penalty under the contract. Additionally, as a practical expedient, the Company has not disclosed the value of unsatisfied performance obligations for contracts with an original expected length of one year or less. The amount of the transaction price allocated to unsatisfied performance obligations with a duration of more than 12 months is recorded in long-term contract liability.

Significant financing component. In certain arrangements, the Company receives payment from a customer either before or after the performance obligation has been satisfied. The expected timing difference between the payment and satisfaction of performance obligations for the vast majority of the Company's contracts is one year or less; therefore, the Company applies a practical expedient and does not consider the effects of the time value of money. The Company's contracts with customer prepayment terms do not include a significant financing component because the primary purpose is not to receive financing from the customers. For arrangements with licenses of intellectual property that include subsequent minimum royalty payments more than one year, the Company adjusts the amount of recorded revenue to reflect the effects of the time value of money if the timing of payments agreed to by the parties to the contract (either explicitly or implicitly) provides the customer with a significant benefit of financing. The effect of the significant financing component will be recognized as interest income separately from revenue from contracts with customers.

Contract modifications. The Company may modify contracts to offer customers additional products or services. Each of the additional products and services are generally considered distinct from those products or services transferred to the customer before the modification. The Company evaluates whether the contract price for the additional products and services reflects the standalone selling price as adjusted for facts and circumstances applicable to that contract. In these cases, the Company accounts for the additional products or services as a separate contract. In other cases where the pricing in the modification does not reflect the standalone selling price as adjusted for facts and circumstances applicable to that contract, the Company accounts for the additional products or services as part of the existing contract primarily on a prospective basis.

Judgments and estimates. Accounting for contracts recognized over time under ASC 606 involves the use of various techniques to estimate total contract revenue and costs. Due to uncertainties inherent in the estimation process, it is possible that estimates of costs to complete a performance obligation will be revised in the near-term. The Company reviews and updates its contract-related estimates regularly, and records adjustments as needed. For those performance obligations for which revenue is recognized using a cost-to-cost input method, changes in total estimated costs, and related progress towards complete satisfaction of the performance obligation, are recognized in the period in which the revisions to the estimates are made.

Research and Development

Research and development costs are expensed as incurred.

Advertising

Advertising costs are expensed as incurred and were \$1.4 million, \$2.3 million and \$1.7 million, respectively, for 2020, 2019 and 2018.

Stock-Based Compensation Expense

Stock-based compensation consists of expense for stock options, RSAs and RSUs granted to employees and nonemployees based on the stock award's grant date fair value. The Company uses the fair market value of its common stock to estimate the fair value of its RSAs and RSUs and uses the Black-Scholes option pricing model to estimate the fair value of its stock options. For market-based performance RSUs (PRSUs), the Company uses the Monte Carlo simulation model (a binomial lattice-based valuation model) to determine the fair value. Stock-based compensation expense for stock options and service-condition awards that are expected to vest is recognized on a straight-line basis over the requisite service period. For performance-based awards, expense is recognized when it is probable the performance goal will be achieved, however if the likelihood becomes improbable, that expense is reversed. The Company recognizes forfeitures as they occur.

As a result of the Business Combination, on October 30, 2020, the Board waived the liquidity event vesting condition applicable to outstanding shares of pre-combination Velodyne's RSUs. As such, the Company's outstanding RSUs vested to the extent the applicable service condition was satisfied as of such date. The Company accounted for the modification as an exchange of the original award, that was not expected to vest, for a new award. The fair value of the RSUs were re-measured based on the fair market value of the underlying Velodyne common stock on the modification date. The compensation expenses resulting from the modification are recognized ratably over the remaining requisite service period or recognized immediately to the extent the RSU's service condition has been satisfied as of the modification date.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rate is recognized in income in the period that includes the enactment date. The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

Commitments and Contingencies

Liabilities for loss contingencies arising from claims, assessments, litigation, fines, and penalties and other sources are recorded when it is probable that a liability has been incurred and the amount of loss or the amount within a range of loss can be reasonably estimated. When no amount within the range is a better estimate than any other amount, the Company accrues for the minimum amount within the range. Legal costs incurred in connection with loss contingencies are expensed as incurred. No significant liabilities for loss contingencies were accrued as of December 31, 2020 and 2019.

Product Warranties

The Company typically provides a one-year warranty on its products. Estimated future warranty costs are accrued and charged to cost of revenue in the period that the related revenue is recognized. These estimates are based on historical warranty experience and any known or expected changes in warranty exposure, such as trends of product reliability and costs of repairing and replacing defective products. The Company periodically assesses the adequacy of its recorded warranty liabilities and adjusts the amounts as necessary.

Changes in the Company's accrued warranty liability, which is included as a component of other accrued expenses was as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Balance as of the beginning of the period	\$ 4,322	\$ 3,531	\$ 1,317
Warranty provision	4,316	6,531	5,469
Consumption	(2,700)	(4,939)	(4,055)
Changes in provision estimates	(3,734)	(801)	800
Balance as of the end of the period	<u>\$ 2,204</u>	<u>\$ 4,322</u>	<u>\$ 3,531</u>

Recent Accounting Pronouncements

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820) - Changes to the Disclosure Requirements for Fair Value Measurement*. ASU 2018-13 removes the requirement to disclose the amount of and reasons for transfers between Level 1 and Level 2 fair value measurement methodologies, the policy for timing of transfers between levels and the valuation processes for Level 3 fair value measurements. It adds a requirement to disclose changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period and the range and weighted average of significant unobservable inputs used to develop Level 3 measurements. The Company adopted the new standard effective January 1, 2020, and there was no material impact on its consolidated financial statements.

Note 2. Business Combination and Related Transactions

On September 29, 2020, the Company consummated a business combination with the pre-combination Velodyne pursuant to the Merger Agreement. Pursuant to ASC 805, for financial accounting and reporting purposes, the pre-combination Velodyne was deemed the accounting acquirer and the Company was treated as the accounting acquiree, and the Business Combination was accounted for as a reverse recapitalization. Accordingly, the Business Combination was treated as the equivalent of the pre-combination Velodyne issuing stock for the net assets of Graf, accompanied by a recapitalization. Under this method of accounting, the consolidated financial statements of the Company are the historical financial statements of the pre-combination Velodyne. The net assets of Graf were stated at historical costs, with no goodwill or other intangible assets recorded in accordance with U.S. GAAP, and are consolidated with the pre-combination Velodyne's financial statements on the Closing date. The shares and net income (loss) per share available to holders of the Company's common stock, prior to the Business Combination, have been retroactively restated as shares reflecting the exchange ratio established in the Merger Agreement.

In connection with the Business Combination, Graf entered into subscription agreements with certain investors (the PIPE Investors), whereby it issued 15,000,000 shares of common stock at \$10.00 per share (the Private Placement Shares) for an aggregate purchase price of \$150.0 million (the Private Placement), which closed simultaneously with the consummation of the Business Combination. Upon the closing of the Business Combination, the Private Placement Shares were automatically converted into shares of the Company's common stock on a one-for-one basis.

The aggregate consideration for the Business Combination and proceeds from the Private Placement was approximately \$1.8 billion, consisting of (i) \$222.1 million in cash at the closing of the Business Combination, net of transaction expenses, and (ii) 150,277,532 shares of common stock valued at \$10.25 per share, totaling \$1,540.3 million. The common stock consideration consists of up to (1) 143,575,763 shares of Company common stock, including shares issuable in respect of vested equity awards of the pre-combination Velodyne, plus (2) 2,000,000 shares of Company common stock earned due to the satisfaction of the Earnout Condition on July 30, 2020, including 187,861 Earnout RSUs, which are subject to a six-month service condition and are not legally issued and outstanding shares of Company common stock at Closing, plus (3) 4,702,304 shares of Company common stock that were issued to Velodyne equity holders that did not opt to have their respective shares repurchased by the pre-combination Velodyne for cash in a pre-closing tender offer conducted by the pre-combination Velodyne (the Pre-Closing Tender Offer). The Company used \$1.8 million of the proceeds to repurchase and retire 175,744 shares of Company common stock from certain stockholders in the Pre-Closing Tender Offer.

In connection with the Business Combination, the Company incurred direct and incremental costs of approximately \$29.1 million related to the equity issuance, consisting primarily of investment banking, legal, accounting and other professional fees, which were recorded to additional paid-in capital as a reduction of proceeds. As of December 31, 2020, the

Company has \$25.1 million of accrued transaction costs, consisting primarily of investment banking fees, in accrued expenses on the consolidated balance sheet.

Note 3. Revenue

Disaggregation of Revenues

The Company disaggregates its revenue from contracts with customers by geographic region based on the shipping location of the customer, type of good or service and timing of transfer of goods or services to customers (point-in-time or over time), as it believes it best depicts how the nature, amount, timing and uncertainty of its revenue and cash flows are affected by economic factors.

Total revenue based on the disaggregation criteria described above is as follows (dollar in thousands):

	Year Ended December 31,					
	2020		2019		2018	
	Revenue	% of Revenue	Revenue	% of Revenue	Revenue	% of Revenue
Revenue by geography:						
North America	\$ 41,228	43 %	\$ 49,634	49 %	\$ 84,541	59 %
Asia Pacific	39,310	41 %	28,791	28 %	39,770	28 %
Europe, Middle East and Africa	14,824	16 %	22,973	23 %	18,635	13 %
Total	<u>\$ 95,362</u>	<u>100 %</u>	<u>\$ 101,398</u>	<u>100 %</u>	<u>\$ 142,946</u>	<u>100 %</u>
Revenue by products and services:						
Products	\$ 68,355	72 %	\$ 81,424	80 %	\$ 132,933	93 %
License and services	27,007	28 %	19,974	20 %	10,013	7 %
Total	<u>\$ 95,362</u>	<u>100 %</u>	<u>\$ 101,398</u>	<u>100 %</u>	<u>\$ 142,946</u>	<u>100 %</u>
Revenue by timing of recognition:						
Goods transferred at a point in time	\$ 92,550	97 %	\$ 92,890	92 %	\$ 139,852	98 %
Goods and services transferred over time	2,812	3 %	8,508	8 %	3,094	2 %
Total	<u>\$ 95,362</u>	<u>100 %</u>	<u>\$ 101,398</u>	<u>100 %</u>	<u>\$ 142,946</u>	<u>100 %</u>

In June 2020, the Company entered into a patent cross-license agreement related to its litigation settlement with a customer in Asia Pacific. Under the terms of the arrangement, the customer agreed to make a one-time license payment upon settlement, will make annual fixed royalty payments through 2022, and thereafter, will make product sales royalty payments through February 2030. During 2020, the Company recognized license revenue of \$19.7 million related to this agreement, representing 21% of total revenue for 2020. In September 2020, Velodyne entered into another patent cross-license agreement related to its litigation with a different customer in Asia Pacific. As of December 31, 2020, the Company recorded \$3.4 million and \$13.7 million, respectively, in current and long-term deferred revenue associated with the rights granted as part of these patent cross-license agreements to receive future patents as they represent stand ready obligations. As of December 31, 2020, the Company also recorded \$11.3 million of contract assets related to these patent cross-license agreements. Products revenue for 2020 included a \$11.1 million one-time stocking fee from a customer in North America.

Contract Assets and Contract Liabilities

Contract assets primarily relates to unbilled accounts receivable. Unbilled amounts arise when the timing of billing differs from the timing of revenue recognized, such as when revenue recognized on the guaranteed minimums at the inception of the contract when there is not yet a right to invoice in accordance with contract terms. Unbilled amounts are recorded as a contract asset when the revenue associated with the contract is recognized prior to billing and reclassified to accounts receivable when billed in accordance with the terms of the contract.

Contract liabilities consist of deferred revenue, customer advanced payments and customer deposits. Deferred revenue includes billings in excess of revenue recognized related to product sales, licenses, extended warranty and other services revenue, and is recognized as revenue when the Company performs under the contract. The long-term portion of deferred revenue, mostly related to obligations under license arrangements and extended warranty, is classified as non-current contract liabilities and is included in other long-term liabilities in the Company's consolidated balance sheets. Customer advanced

payments represent required customer payments in advance of product shipments according to customer's payment term. Customer advance payments are recognized as revenue when control of the performance obligation is transferred to the customer. Customer deposits represent consideration received from a customer which can be applied to future product or service purchases, or refunded.

Contract assets and contract liabilities consisted of the following as of December 31, 2020 and December 31, 2019 (in thousands):

	December 31,	
	2020	2019
Contract assets, current		
Unbilled accounts receivable	\$ 2,813	\$ —
Contract assets, long-term		
Unbilled accounts receivable	8,440	—
Total contract assets	<u>\$ 11,253</u>	<u>\$ —</u>
Contract liabilities, current		
Deferred revenue, current	\$ 7,143	\$ 926
Customer advance payment	180	11,252
Customer deposit	—	6,083
Total	<u>7,323</u>	<u>18,261</u>
Contract liabilities, long-term		
Deferred revenue, long-term	14,732	903
Total contract liabilities	<u>\$ 22,055</u>	<u>\$ 19,164</u>

The following table shows the significant changes in contract assets and contract liabilities balances (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Contract assets:			
Beginning balance	\$ —	\$ —	\$ —
Increase due to unbilled and recognized as revenue in excess of billings during the period, net of amounts transferred to receivables	11,253	—	—
Ending balance	<u>\$ 11,253</u>	<u>\$ —</u>	<u>\$ —</u>
Contract liabilities:			
Beginning balance	\$ 19,164	\$ 20,911	\$ 16,835
Impact of ASC 606 adoption	—	—	(256)
Revenue recognized that was included in the contract liabilities beginning balance	(12,182)	(3,149)	(7,393)
Increase due to cash received and not recognized as revenue and billings in excess of revenue recognized during the period	21,156	1,402	11,725
Customer deposits reclassified to refund liabilities	(6,083)	—	—
Ending balance	<u>\$ 22,055</u>	<u>\$ 19,164</u>	<u>\$ 20,911</u>

During 2020, the Company reclassified customer deposit of \$6.1 million to refund liabilities and refunded the entire amount to a customer.

Note 4. Fair Value Measurement

The Company categorizes assets and liabilities recorded at fair value on the consolidated balance sheet based on the level of judgment associated with inputs used to measure their fair value. For assets and liabilities measured at fair value, fair value is the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining fair value, the Company considers the principal or most advantageous market in which the Company would transact, and the Company considers assumptions that market participants would use when pricing the asset or liability.

The three levels of inputs that may be used to measure fair value are:

- Level 1 — Quoted prices in active markets for identical assets or liabilities.
- Level 2 — Observable inputs other than Level 1 prices, such as quoted prices for similar assets and liabilities in active markets or quoted prices in less active market. All significant inputs used in the valuations are observable or can be directly or indirectly through market corroboration, for substantially the full term of the assets or liabilities.
- Level 3 — Unobservable inputs are based on assumptions used to measure assets and liabilities at fair value. The inputs require significant management judgment or estimation. The Company monitors and review the inputs to ensure the fair value measurements are reasonable and consistent with market experience in similar asset classes.

The following table summarize the Company's assets measured at fair value on a recurring basis, by level, within the fair value hierarchy (in thousands):

	December 31, 2020			
	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market fund	\$ 74,107	\$ —	\$ —	\$ 74,107
Treasury bill and U.S. government and agency securities	19,999	—	—	19,999
Corporate debt securities	—	2,003	—	2,003
Commercial paper	—	33,295	—	33,295
Total cash equivalents	94,106	35,298	—	129,404
Short-term investments:				
Commercial paper	—	122,265	—	122,265
Corporate debt securities	—	23,371	—	23,371
Total short-term investments	—	145,636	—	145,636
Total assets measured at fair value	\$ 94,106	\$ 180,934	\$ —	\$ 275,040

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market fund	\$ 44,669	\$ —	\$ —	\$ 44,669
Total cash equivalents	44,669	—	—	44,669
Short-term investments:				
Commercial paper	—	1,099	—	1,099
Corporate debt securities	—	1,100	—	1,100
Total short-term investments	—	2,199	—	2,199
Total assets measured at fair value	\$ 44,669	\$ 2,199	\$ —	\$ 46,868

Cash equivalents consist primarily of money market funds with original maturities of three months or less at the time of purchase, and the carrying amount is a reasonable estimate of fair value. Short-term investments consist of investment securities with original maturities greater than three months and are included as current assets in the consolidated balance sheets.

Note 5. Balance Sheet Components

Accounts Receivables, Net

Accounts receivables, net consist of the following (in thousands):

	December 31,	
	2020	2019
Accounts receivable	\$ 14,855	\$ 12,330
Allowance for doubtful accounts	(876)	(467)
Accounts receivable, net	<u>\$ 13,979</u>	<u>\$ 11,863</u>

Inventories, Net

Inventories, net of reserve, consist of the following (in thousands):

	December 31,	
	2020	2019
Raw materials	\$ 6,876	\$ 12,374
Work-in-process	4,347	1,748
Finished goods	6,909	5,629
Total inventories	18,132	19,751
Less inventories not deemed to be current, included in other assets	—	4,764
Inventories, included in current assets	<u>\$ 18,132</u>	<u>\$ 14,987</u>

Non-current inventories consist of raw material components forecasted to be used in production later than twelve months from the respective balance sheet dates. The Company believes that these inventories will be utilized for future production plans.

Prepaid and Other Current Assets

Prepaid and other current assets consist of the following (in thousands):

	December 31,	
	2020	2019
Prepaid expenses and deposits	\$ 5,698	\$ 3,045
Due from contract manufacturers and vendors	2,944	4,068
Prepaid taxes	1,612	2,122
Contract assets	2,813	—
Receivable from warrant exercises	9,074	—
Other	178	3,683
Total prepaid and other current assets	<u>\$ 22,319</u>	<u>\$ 12,918</u>

Property, Plant and Equipment, Net

Property, plant and equipment, at cost, consist of the following (in thousands):

	December 31,	
	2020	2019
Land	\$ —	\$ 2,340
Building	—	3,142
Machinery and equipment	32,688	30,082
Building improvements	—	4,194
Leasehold improvements	5,905	5,581
Furniture and fixtures	1,479	1,431
Vehicles	360	759
Software	1,357	1,343
Assets under construction	641	170
	42,430	49,042
Less: accumulated depreciation and amortization	(25,625)	(22,764)
Property, plant and equipment, net	\$ 16,805	\$ 26,278
Capital lease equipment	\$ 888	\$ 888
Less: accumulated depreciation	(381)	(203)
Capital lease equipment, net	\$ 507	\$ 685

In March 2020, the Company reclassified the then carrying value of \$4.7 million related to its Morgan Hill properties previously reported as property, plant and equipment to assets held for sale and included as other current assets in its consolidated balance sheets. On July 2, 2020, the Company sold the properties to a third-party buyer for \$12.3 million and recorded a gain of \$7.5 million in 2020.

The aggregate depreciation and amortization related to property, plant and equipment was as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Depreciation and amortization on property, plant and equipment	\$ 8,009	\$ 7,805	\$ 6,791
Depreciation on capital lease equipment	178	122	81

Intangible Assets, Net

Intangible assets, net, consist of the following (in thousands):

	Gross Carrying Amount	Accumulated Amortization	Net Book Value
As of December 31, 2020:			
Developed technology	\$ 1,200	\$ 573	\$ 627
As of December 31, 2019:			
Developed technology	\$ 1,170	\$ 188	\$ 982

Amortization of intangible assets is as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Amortization of intangible assets	\$ 385	\$ 188	\$ —

Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	December 31,	
	2020	2019
Accrued payroll expenses	\$ 11,877	\$ 10,537
Accrued manufacturing costs	8,003	3,344
Accrued transaction costs	25,057	—
Accrued professional and consulting fees	965	5,572
Accrued warranty costs	2,204	4,322
Accrued taxes	1,074	944
Refund liabilities	—	4,878
Other	1,169	1,563
Total accrued expense and other current liabilities	\$ 50,349	\$ 31,160

Long-Term Liabilities

Long-term liabilities consisted of the following (in thousands):

	December 31,	
	2020	2019
PPP Loan	\$ 10,000	\$ —
Contract liabilities, long-term	14,732	903
Other	1,195	1,322
Total long-term liabilities	\$ 25,927	\$ 2,225

Note 6. Mapper Acquisition

On July 3, 2019, the Company acquired technology, workforce and certain assets of Mapper.ai, Inc. (Mapper), an on-demand map solution company, for a total of \$2.5 million in cash. The acquisition was accounted for using the purchase method of accounting for business combinations. The total purchase price is allocated to acquired assets based on their estimated fair value at the acquisition date as follows (in thousands):

Assets Acquired:	Amount
Developed technology	\$ 1,140
Property and equipment	144
Goodwill	1,189
Total purchase price	\$ 2,473

The excess of the purchase price over the tangible and intangible assets acquired has been recorded as goodwill. The goodwill is attributable to the workforce of the acquired business and expected synergies with the Company's existing operations and is amortizable for income tax purposes. Management integrates the Mapper acquisition into its existing business structure, which is comprised of a single reporting unit.

Developed technology is amortized on a straight-line basis over its estimated useful life of 3 years. Acquisition-related costs of \$0.2 million were expensed in the period incurred within general and administrative expense in the Company's consolidated statement of operations.

The results of operations related to this acquisition have been included in the Company's consolidated statements of operations from the acquisition date. Pro forma disclosures have not been provided since the acquisition did not have, and is not expected to have, a material impact on the Company's results of operations.

Note 7. Accumulated Other Comprehensive Loss

Accumulated other comprehensive loss was comprised of the following as of December 31, 2020 and December 31, 2019 (in thousands):

	December 31,	
	2020	2019
Foreign currency translation loss	\$ (170)	\$ (216)
Unrealized loss on investments	(60)	—
Total accumulated other comprehensive loss	\$ (230)	\$ (216)

During 2020, 2019 and 2018, there were no significant amounts related to foreign currency translation loss or realized gains or loss on investments reclassified to net loss from accumulated other comprehensive loss.

Note 8. Credit Facilities and Notes Payable

In January 2020, the Company entered into a loan and security agreement with a financial institution (the 2020 Revolving Line), as amended in September 2020 and in December 2020, which provides a revolving line of credit of \$25.0 million, with an option to increase the credit limit up to additional \$15.0 million with the bank's approval. As part of the Revolving Line, there is a letters of credit sub-limit of \$5.0 million. The advances under the Revolving Line bear interest at a rate per annum equal to prime rate plus an applicable margin of 1.5% for prime rate advances, or LIBOR rate plus an applicable margin of 2.5% for LIBOR advances. Unused revolving line facility fee is 0.15% per annum of average unused portion of the Revolving Line. In addition, there is a \$50,000 non-refundable commitment fee if the Company exercises the Incremental Revolving Line option. The Revolving Line is secured by certain assets of the Company. The 2020 Revolving Line expired on February 27, 2021 and the Company intends to extend for one additional year. The Company had no outstanding borrowings and was in compliance with the financial covenants associated with the facility as of December 31, 2020.

On April 8, 2020, the Company received loan proceeds of \$10.0 million under the CARES Act's Paycheck Protection Program (PPP). The principal and accrued interest are forgivable after 24 weeks as long as the borrower uses the loan proceeds for eligible purposes, including payroll, benefits, rent and utilities, and maintains its payroll levels and that approval is received from the relevant government entity. The unforgiven portion of the PPP Loan is payable in two years at an interest rate of 1% per annum, with a deferral of interest payments for ten months after the expiration of the 24-week covered period. The PPP loan balance of \$10.0 million was included in other long-term liabilities in the Company's consolidated balance sheet as of December 31, 2020.

Note 9. Stockholders' Equity

Common Stock

On September 30, 2020, Velodyne Lidar's common stock and warrants began trading on the Nasdaq Global Select Market under the symbol "VLDR" and "VLDRW," respectively. Pursuant to the terms of the Amended and Restated Certificate of Incorporation, the Company is authorized and has available for issuance the following shares and classes of capital stock, each with a par value of \$0.0001 per share: (i) 2,250,000,000 shares of common stock; (ii) 25,000,000 shares of preferred stock. Immediately following the Business Combination, there were 168,713,296 shares of common stock with a par value of \$0.0001, and 24,876,512 warrants outstanding.

As discussed in Note 2, Business Combination, the Company has retroactively adjusted the shares issued and outstanding prior to September 29, 2020 to give effect to the exchange ratio established in the Merger Agreement to determine the number of shares of common stock into which they were converted.

Prior to the Closing, Velodyne Lidar had shares of no par value Series A, Series B and Series B-1 preferred stock outstanding, all of which were convertible into shares of common stock of the pre-combination Velodyne on a 1:1 basis, subject to certain anti-dilution protections. Upon the Closing, the outstanding shares of preferred stock were converted into common stock of the Company at 1:2.9786, 1:3.5465 and 1:3.5465, respectively, the exchange rates established in the Merger Agreement. The following summarizes the Company's preferred stock conversion immediately after the Business Combination:

	September 29, 2020 (Closing Date)		
	Preferred Stock Shares	Conversion Ratio	Common Stock Shares
Series A Convertible Preferred Stock (pre-combination)	8,772,852	2.9786	26,130,888
Series B Convertible Preferred Stock (pre-combination)	1,375,440	3.5465	4,878,048
Series B-1 Convertible Preferred Stock (pre-combination)	1,925,616	3.5465	6,829,267
Total	<u>12,073,908</u>		<u>37,838,203</u>

In conjunction with the Business Combination, Graf obtained commitments from certain PIPE Investors to purchase shares of Graf Class A common stock, which were automatically converted into 15,000,000 shares of Graf's Class A common stock for a purchase price of \$10.00 per share, which were automatically converted into shares of the Company's common stock on a one-for-one basis upon the closing of the Business Combination.

As of December 31, 2020, the Company had 175,912,194 shares of common stock outstanding, which excludes 4,183,624 restricted stock award (RSA) shares issued and outstanding that are subject to certain lock-up and forfeiture arrangements. The following summarizes the Company's common stock outstanding as of December 31, 2020:

	Shares	%
Converted pre-combination Velodyne common stock outstanding, net of shares repurchased as part of the tender offer	101,849,247	57.9 %
Converted pre-combination Velodyne preferred stock outstanding	24,772,759	14.1 %
Public stockholders	44,260,188	25.1 %
Graf Founder shares	2,575,000	1.5 %
PIPE shares	2,455,000	1.4 %
Total common stock issued and outstanding as of December 31, 2020	<u>175,912,194</u>	<u>100.0 %</u>

Preferred Stock

The Company is authorized to issue up to 25,000,000 shares of preferred stock, each with a par value of \$0.0001 per share. As of December 31, 2020, no shares of preferred stock were issued and outstanding.

Warrants

Upon the Closing, there were 24,876,512 outstanding warrants to purchase shares of the Company's common stock that were issued by Graf prior to the Business Combination. Each whole warrant entitles the holder to purchase three-quarters of one share of the Company's common stock at a price of \$11.50 per share, subject to adjustments. The warrants are exercisable at any time commencing 30 days after the completion of the Business Combination and expire five years after the completion of the Business Combination. The Company may redeem the outstanding warrants in whole and not in part at a price of \$0.01 per warrant at any time after they become exercisable, provided that the last sale price of the Company's common stock equals or exceeds \$18.00 per share, subject to adjustments, for any 20-trading days within a 30-trading day period ending three business days prior to the date on which the Company sends the notice of redemption to the warrant holders.

In connection with the Business Combination, on October 19, 2020, the Company registered the issuance of an aggregate of up to 18,657,384 shares of its common stock that are issuable upon the exercise of its warrants including up to 375,000 shares of its common stock issuable upon exercise of its working capital warrants issued to Graf LLC. The exercise price of the warrants is \$11.50 per share. There were 9,598,538 warrants exercised and 7,198,898 shares of common stocks issued under warrant exercises as of December 31, 2020. Subsequently, there were additional 9,298,456 warrants exercised and 6,973,826 shares of common stocks issued under warrant exercises as of March 10, 2021. The Company received \$73.7 million in net proceeds from the exercises of warrants in 2020 and received an additional \$89.3 million in net proceeds from the exercises of warrants in 2021 as of March 10, 2021.

Dividend

The Company has not paid any cash dividends on the common stock to date. The Company may retain future earnings, if any, for future operations, expansion and debt repayment and has no current plans to pay cash dividends for the foreseeable future. Any decision to declare and pay dividends in the future will be made at the discretion of the Board and will depend on, among other things, the Company's results of operations, financial condition, cash requirements, contractual restrictions and other factors that the Board may deem relevant. In addition, the Company's ability to pay dividends may be limited by covenants of any existing and future outstanding indebtedness the Company or its subsidiaries incur.

Note 10. Stock-Based Compensation

Pre-Combination Velodyne Stock Incentive Plans

Prior to the Business Combination, commencing in 2008, the Board of Directors of the pre-combination Velodyne approved the 2007 Incentive Stock Plan (2007 Stock Plan) and the 2016 Stock Plan. The 2007 Stock Plan provided for the granting of stock-based awards in the form of stock options and restricted stock awards to employees. The 2016 Stock Plan provides for the direct award or sale of shares, the grant of stock options and restricted stock units (RSUs) to employees, directors and consultants.

As a result of the Business Combination, the stockholders of the Company approved the Velodyne Lidar, Inc. 2020 Equity Incentive Plan (the 2020 Equity Plan). In accordance with the Merger Agreement, the Board approved cancelling and converting all outstanding equity-awards granted under the 2007 Stock Plan and 2016 Stock Plan into equity-based awards under the 2020 Incentive Plan effective upon the consummation of the Business Combination, based on exchange ratios established in the Merger Agreement with the same general terms and conditions corresponding to the original awards.

The Company rolled forward all outstanding options, RSAs and RSUs granted under the 2007 Stock Plan and 2016 Stock Plan into same type of equity-based awards under the 2020 Equity Plan effective upon the consummation of the Business Combination. The shares under the 2007 Stock Plan and 2016 Stock Plan have been retroactively restated as shares reflecting the exchange ratio established in the Merger Agreement.

2020 Equity Incentive Plans

In connection with the Business Combination, on September 29, 2020, the Company's stockholders approved the 2020 Equity Plan and the 2020 Employee Stock Purchase Plan (the 2020 ESPP).

The 2020 Equity Plan provides for the grant of stock options, stock appreciation rights, restricted stock units and other stock or cash-based awards. The Company initially reserved 27,733,888, approximately 16% of the number of shares of its common stock outstanding upon the Closing, as the "Initial Limit" for the issuance of awards under the 2020 Equity Plan. The 2020 Equity Plan provides that the number of shares reserved and available for issuance under the plan will automatically increase each January 1, beginning on January 1, 2021 and ending on (and including) January 1, 2030, the aggregate number of Common Shares that may be issued under the Plan shall automatically increase by a number equal to the least of (a) 5% of the total number of Common Shares actually issued and outstanding on the last day of the preceding fiscal year, (b) 10,000,000 Common Shares, or (c) a number of Common Shares determined by the Board. This limit is subject to adjustment in the event of a stock split, stock dividend or other change in the Company's capitalization.

Under the 2020 ESPP, there are initially 3,492,097 authorized but unissued or reacquired shares of common stock reserved for issuance, plus an additional number of shares to be reserved annually on the first day of each fiscal year for a period of not more than 20 years, beginning on January 1, 2021, in an amount equal to the least of (i) one percent (1%) of the outstanding shares of our common stock on such date, (ii) 2,500,000 shares of our common stock or (iii) a lesser amount determined by the Compensation Committee or the Board.

The Board has adopted the sell-to-cover method as the tax withholding method for stock awards upon settlement, pursuant to which shares with a market value equivalent to the tax withholding obligation are sold on behalf of the holder of the awards to cover the tax withholding liability and the cash proceeds from such sales are remitted by the Company to taxing authorities.

During 2020, there were 187,861 shares of Earnout RSU issued under the 2020 Equity Plan, which are subject to a six-month service condition.

Stock Options, RSAs and RSUs

In December 2015, the Company granted RSAs to two employees under the 2007 Stock Plan. The RSAs are subject to a time-based vesting condition and a liquidity event vesting condition, which is (i) an initial public offering, or (ii) a Company sale event, both of which must be satisfied on or before the 10-year anniversary of the date of the grant in order for the RSAs to be vested and settled for shares of common stock. Subject to certain terms, the RSAs provide voting rights equivalent to a common stockholder and are eligible for dividends.

Beginning March 2017, the Company granted options and RSUs to certain employees, directors and consultants pursuant to the 2016 Stock Plan. Options expire in 10 years from the date of grant and typically vest 25 percent upon the one-year anniversary date from the initial vesting date, with the remainder vesting quarterly over the following three years. The RSUs issued prior to September 29, 2020 are subject to a time-based vesting condition and a liquidity event vesting condition, which is (i) an initial public offering, or (ii) a Company sale event, both of which must be satisfied on or before the 7-year anniversary of the date of the grant in order for the RSUs to be vested and settled for shares of common stock. All shares subject to RSUs that do not vest on or before the 7-year anniversary of the date will be forfeited. The RSUs typically vest 25 percent upon the one-year anniversary date from initial vesting date, with the remainder vesting quarterly over the following three years. Certain RSUs also contain performance conditions related to the Company's product development and business performance for the performance periods specified in the RSU agreements.

In May 2020, the Company granted market-based performance RSUs (PRSUs) that contain service, liquidity event condition and market conditions to vest in the underlying common stock. The PRSUs vest upon the three-year anniversary date from initial vesting date and the number of shares that vests is ultimately dependent on the value of the Company's stock at the vesting date.

A summary of the stock option activities under the Company's equity plans is as follows:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (In thousands)
Option:				
Options outstanding as of December 31, 2017, as previously reported	2,603,333	\$ 1.13		
Retroactive application of the recapitalization	5,044,795			
Options outstanding as of December 31, 2017, as adjusted	7,648,128	0.39		
Granted	—			
Forfeited	—			
Options outstanding as of December 31, 2018	7,648,128	0.39		
Forfeited	(82,626)	7.18		
Expired	(7,408,821)	0.19		
Options outstanding as of December 31, 2019	156,681	6.21		
Granted	440,673	5.74		
Options outstanding as of December 31, 2020	597,354	5.86	7.3	\$ 10,133
Options exercisable as of December 31, 2020	156,681	6.21	1.36	2,603
Options vested and expected to vest as of December 31, 2020	597,354	5.86	7.3	10,133

A summary of RSA and RSU activities under the Company's equity plans is as follows:

	Shares	Weighted Average Grant Date Fair Value per Share
RSA:		
RSAs outstanding as of December 31, 2017, as previously reported	1,404,557	\$4.09
Retroactive application of the recapitalization	2,779,067	
RSUs outstanding as of December 31, 2017, as adjusted	4,183,624	1.37
Forfeited	—	
RSAs outstanding as of December 31, 2018	4,183,624	1.37
Forfeited	—	
RSAs outstanding as of December 31, 2019	4,183,624	1.37
Forfeited	—	
RSAs outstanding as of December 31, 2020	4,183,624	1.37
RSU:		
RSUs outstanding as of December 31, 2017, as previously reported	1,670,669	\$19.94
Retroactive application of the recapitalization	3,240,156	
RSUs outstanding as of December 31, 2017, as adjusted	4,910,825	6.79
Granted	2,739,268	8.08
Forfeited	(1,222,706)	6.94
RSUs outstanding as of December 31, 2018	6,427,387	7.31
Granted	4,329,925	9.83
Forfeited	(1,217,505)	8.30
RSUs outstanding as of December 31, 2019	9,539,807	8.33
Granted	3,340,173	6.80
Modified	—	12.23
Forfeited	(896,344)	8.48
RSUs outstanding as of December 31, 2020	11,983,636	12.43
PRSU:		
PRSUs outstanding as of December 31, 2019	—	
Granted	1,101,683	\$6.72
PRSUs outstanding as of December 31, 2020	1,101,683	6.72

As a result of the Business Combination, on October 30, 2020, the Board waived the liquidity event vesting condition applicable to approximately 11.8 million outstanding shares of pre-combination Velodyne's RSUs held by approximately 330 current and former employees and directors. As such, the Company's outstanding RSUs vested to the extent the applicable service condition was satisfied as of such date. The fair value of the RSUs were re-measured to \$12.23 per share, which was based on the fair market value of the underlying Velodyne common stock on the modification date.

Stock-Based Compensation Expense

Prior to the business combination, no compensation expense had been recognized for the RSAs and RSUs granted under the pre-combination Velodyne's stock incentive plans because the liquidity event vesting condition was not probable of being met. As a result of the Business Combination, on October 30, 2020, the Board waived the liquidity event vesting condition applicable to the pre-combination Velodyne's RSUs. Therefore, the Company's outstanding RSUs vested to the extent the applicable service condition was satisfied as of such date. Total fair value of the modified RSUs was \$144.4 million based on the fair market value of the underlying Velodyne common stock on the modification date. The value of the modified RSUs was recognized as compensation expense immediately for the vested RSUs as of the modification date, and from the modification date through the remaining requisite service period for the RSUs expected to vest. On October 30, 2020, the Company recorded approximately \$77.5 million of compensation expense that resulted from the RSU modification. No incremental compensation costs were recognized on conversion of the options as the fair value of the options issued were equivalent to the fair value of the outstanding options of the 2016 Stock Plan.

The Company uses the Black-Scholes option pricing model to determine the fair value of its stock options and uses the Monte Carlo simulation model to determine the fair value of its market-based PRSUs. The Monte Carlo simulation model uses multiple input variables to determine the probability of satisfying the market condition requirements. The fair value of the PRSUs is not subject to change based on future market conditions. The determination of the fair value for stock options and PRSUs requires judgment, including estimating the fair market value of common stock, stock-price volatility, expected term, expected dividends and risk-free interest rates. The expected volatility rates are estimated based on historical volatilities of the Company's peers' common stock over a period of time that approximates the expected term of the options. Due to lack of historical data on employees' option exercises, the Company estimates the expected term of the options using the simplified method, which calculates the expected term equal to the midpoint between the vesting period and the maximum contractual term. Expected dividends are estimated based on the Company's dividend history as well as the Company's current projections. The risk-free interest rate for periods approximating the expected terms of the options or the PRSUs is based on the U.S. Treasury yield curve in effect at the time of grant.

The following table sets forth the weighted average grant date fair value for options and the assumptions used as inputs for the Black-Scholes option pricing model:

	Year Ended December 31, 2020
Weighted average grant date fair value of options	\$2.10
Expected term, in years	5.55
Expected volatility	39.82%
Risk-free interest rate	0.371%
Expected dividend yield	—

The following table sets forth the weighted average modification date fair value for PRSUs and the assumptions used as inputs for the Monte Carlo simulation model:

	Year Ended December 31, 2020
Weighted average modification date fair value of PRSUs	\$6.72
Expected term, in years	2.17
Expected volatility	49.00%
Risk-free interest rate	0.15%
Expected dividend yield	0.00%

The following table presents stock-based compensation expense included in the Company's consolidated statements of operations (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Cost of revenue	\$ 7,417	\$ —	\$ —
Research and development	37,030	97	93
Sales and marketing	14,773	—	—
General and administrative	32,280	38	114
Total stock-based compensation expense	<u>\$ 91,500</u>	<u>\$ 135</u>	<u>\$ 207</u>

The Company recognizes forfeitures as they occur. As of December 31, 2020, unrecognized compensation cost related to RSUs and stock options was \$62.9 million and \$0.7 million, respectively, which was expected to be recognized over a weighted average period of 2.33 years and 2.93 years, respectively.

Note 11. Net Loss Per Share

Pursuant to the Amended and Restated Certificate of Incorporation and as a result of the Business Combination and reverse recapitalization, the Company has retrospectively adjusted the weighted average shares outstanding prior to September 29, 2020 to give effect to the exchange ratio used to determine the number of shares of common stock into which the pre-combination Velodyne common and preferred stock converted.

Basic net income (loss) per share is computed based on the weighted average number of shares of common stock outstanding during the period. Diluted net income (loss) per share is computed based on the weighted average number of common shares outstanding plus the effect of dilutive potential common shares outstanding during the period using the treasury stock method. During the periods when there is a net loss, potentially dilutive common stock equivalents have been excluded from the calculation of diluted net loss per share as their effect is anti-dilutive.

Warrants to purchase 24,876,512 shares of common stock at \$11.50 per share were issued during Graf's initial public offering. As of December 31, 2020, there were 9,598,538 warrants exercised and 7,198,898 shares of common stocks issued under warrant exercises. The 15,277,974 outstanding warrants were excluded from the basic and diluted net loss per share as they were anti-dilutive given the Company had a net loss for all periods presented.

The following common stock equivalents have also been excluded from the computation of diluted net loss per share for the periods presented because including them would have been antidilutive (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Stock options	597	157	304
RSAs	4,184	4,184	4,184
RSUs	6,320	9,540	6,427
Total	<u>11,101</u>	<u>13,881</u>	<u>10,915</u>

Note 12. Retirement Plan

The Company has a 401(k) savings and profit-sharing plan (the 401(k) Plan), which is intended to be a tax-qualified defined contribution plan that covers all eligible employees, as defined in the applicable plan documents. Under the 401(k) Plan, eligible employees may elect salary deferral contributions, not to exceed limitations established annually by the Internal Revenue Service ("IRS"). The Company matches 25% of employees' eligible contributions. The Company's matching contributions were \$0.8 million, \$0.9 million and \$0.9 million, respectively, for 2020, 2019 and 2018.

Note 13. Restructuring

In March 2020, the Company initiated a restructuring plan to downsize the manufacturing function and related engineering and administrative functions in its California locations. The purposes of this plan are to align resource requirements with the Company's initiatives to lower the Company's cost structure and to increase its production capacity by

outsourcing a majority of its manufacturing activities. The Company's restructuring expenses incurred to date primarily related to employee termination costs.

The following table summarizes the Company's costs incurred during 2020, estimated additional costs to be incurred and estimated total costs expected to be incurred under the restructuring program as of December 31, 2020 (in thousands):

	Cost Incurred During the Period	Cumulative Costs Incurred Through End of the Period	Estimated Additional Costs to be Incurred	Total Restructuring Costs Expected to be Incurred
Employee termination benefits	\$ 984	\$ 984	\$ —	\$ 984

The following table summarizes the changes in restructuring liabilities during 2020 (in thousands):

	Year Ended December 31, 2020
Restructuring liabilities, beginning	\$ —
Provisions and adjustments	984
Cash payments	(984)
Restructuring liabilities, ending	\$ —

Note 14. Income Taxes

Loss before income taxes consisted of the followings (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Domestic	\$ (154,290)	\$ (68,645)	\$ (56,631)
Foreign	342	736	959
Loss before income taxes	\$ (153,948)	\$ (67,909)	\$ (55,672)

Provision for (benefit from) income taxes consisted of the following (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Current:			
Federal	\$ (4,124)	\$ 958	\$ 8
State	(20)	(130)	507
Foreign	56	430	268
Total Current	(4,088)	1,258	783
Deferred:			
Federal	3	(1,942)	3,805
State	1	1	2,040
Foreign	—	—	—
Total Deferred	4	(1,941)	5,845
Provision for (benefit from) income taxes	\$ (4,084)	\$ (683)	\$ 6,628

Enacted on March 27, 2020, the Coronavirus Aid, Relief, and Economic Security (CARES) Act provides emergency assistance and health care response for businesses affected by the 2020 coronavirus pandemic. The CARES Act, among other things, permits net operating loss carryovers and carrybacks to offset 100% of taxable income for taxable years beginning before 2021. Additionally, the CARES Act allows net operating losses incurred in 2018, 2019 and 2020 to be carried back to each of the five preceding taxable years to generate a refund of previously paid income taxes.

In April 2020, we filed a claim to carryback a portion of our 2019 net operating losses to 2017 and received a \$7.1 million tax refund in May 2020. The Company recorded a \$6.7 million tax benefit related to the release of a valuation allowance associated with carrying back a portion of our 2019 net operating losses to 2017 that is allowed by the CARES Act.

The provision for (benefit from) income taxes differ from the amounts computed by applying the U.S. federal income tax rate to income (loss) before income taxes for the following reasons:

	Year Ended December 31,		
	2020	2019	2018
U.S. federal provision at statutory rate	21.0 %	21.0 %	21.0 %
State income taxes, net of federal benefit	1.5	1.3	7.4
Foreign income taxes at rates other than the U.S. rate	—	(0.4)	(0.1)
Tax credits	3.0	6.7	4.5
Withholding taxes	(1.7)	(1.5)	—
Permanent items	(1.4)	(0.2)	(0.7)
Uncertain tax benefits	(0.2)	(0.2)	(0.5)
2019 CARES Act impact	4.3	—	—
Prior year return to provision adjustments	(1.7)	(0.1)	0.2
Change in valuation allowance	(22.0)	(25.7)	(43.2)
Other	(0.1)	0.1	(0.5)
Effective tax rate	<u>2.7 %</u>	<u>1.0 %</u>	<u>(11.9)%</u>

The Company's effective tax rates differ from the federal statutory rate primarily due to state taxes, research and development credits, valuation allowance, tax impact related to the 2019 CARES Act, and other permanent adjustments.

The Company's deferred income tax assets and liabilities as of December 31, 2020 and 2019 were as follows (in thousands):

	December 31,	
	2020	2019
Deferred tax assets:		
Net operating loss carryforward	\$ 42,698	\$ 27,325
Tax credits	13,387	5,099
Deferred revenue	224	4,601
Accruals and reserves	3,449	4,336
Inventories	1,850	2,176
Stock-based compensation	16,179	129
Other	117	52
Total deferred tax assets	<u>77,904</u>	<u>43,718</u>
Deferred tax liabilities:		
Depreciation and amortization	(1,203)	(1,820)
Prepays	(1,149)	(427)
Total deferred tax liabilities	<u>(2,352)</u>	<u>(2,247)</u>
Net deferred tax assets before valuation allowance	<u>75,552</u>	<u>41,471</u>
Valuation allowance	<u>(75,558)</u>	<u>(41,473)</u>
Net deferred tax assets (liabilities)	<u>\$ (6)</u>	<u>\$ (2)</u>

Income taxes are accounted for using an asset-and-liability approach. Deferred income taxes reflect the net effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts

used for income tax purposes, and operating loss and tax credit carryforwards measured by applying currently enacted tax laws. If applicable, a valuation allowance is provided to reduce net deferred tax assets to an amount that is more likely than not to be realized. Further, the Company establishes liabilities or reduces assets for uncertain tax positions when it believes certain tax positions are not more likely than not of being sustained if challenged. Revaluation of tax positions considers factors such as changes in facts or circumstances, changes in or interpretations of tax law, effectively settled issues under audit or expiration of statute of limitation, and new audit activity.

The Company assesses the realizability of deferred tax assets based on the available evidence, including a history of taxable income and estimates of future taxable income. In assessing the realizability of deferred tax assets, The Company considers whether it is more likely than not that all or some portion of deferred tax assets will not be realized. Due to the cumulative historical losses generated by the Company and the projected losses in the future, the Company believes it is not more likely than not that all of the deferred tax assets can be realized. Accordingly, the Company established and recorded a net valuation allowance on its deferred tax assets of \$75.6 million and \$41.5 million as of December 31, 2020 and December 31, 2019, respectively.

Utilization of the net operating loss and tax credit carryforwards may be subject to a substantial annual limitation due to the “ownership change” limitations provided by Section 382 and 383 of the Internal Revenue Code of 1986, as amended, and other similar state provisions. Any annual limitation may result in the expiration of net operating loss and tax credit carryforwards before utilization.

As of December 31, 2020, the Company had \$173.5 million of U.S. federal and \$105.5 million of state net operating loss carryforwards available to reduce future taxable income, which will be carried forward indefinitely for U.S. federal tax purposes and will expire beginning in 2028 through 2040 for state tax purposes.

The Company also has federal and California research and development tax credit carryforwards of \$9.5 million and \$5.8 million, respectively. The federal research credit carryforwards will expire in 2036 and California research credits can be carried forward indefinitely. The Company also has federal foreign tax credit carryforwards of \$3.5 million that will expire beginning in 2029.

The Company accrues for uncertain tax positions identified, which are not deemed more likely than not to be sustained if challenged, and recognizes interest and penalties accrued on any unrecognized tax benefits as a component of income tax expense. The Company accrued immaterial interest on uncertain tax benefits associated with unrecognized tax benefits, and had immaterial cumulative interest and penalties as of December 31, 2020 and December 31, 2019.

The Company does not expect that the total amounts of unrecognized tax benefits will significantly increase or decrease within 12 months of the reporting date. The following table summarizes the aggregate changes in the total gross amount of unrecognized tax benefits (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Unrecognized tax benefits as of the beginning of the year	\$ 4,188	\$ 2,824	\$ 1,763
Increases related to prior year tax provisions	400	308	78
Decrease related to prior year tax provisions	—	—	(216)
Increase related to current year tax provisions	1,240	1,282	1,199
Statute lapse	(43)	(226)	—
Unrecognized tax benefits as of the end of the year	\$ 5,785	\$ 4,188	\$ 2,824

The unrecognized tax benefits, if recognized, would impact the income tax provision by \$0.5 million, \$1.3 million, and \$1.6 million as of December 31, 2020, 2019 and 2018, respectively. The remaining unrecognized tax benefits would not impact the income tax provision as there would be an offset by the reversal of related deferred tax assets subject to a full valuation allowance.

The Company’s major tax jurisdictions are the United States and California and the earliest year open for examination is the 2016 tax year. The Company’s 2017 and 2018 tax years are currently under IRS examination. The Company believes that an adequate provision has been made for any adjustments that may result from the tax examination. Although the timing of

the resolution, settlement, and closure of the audit is not certain, the Company does not believe it is reasonably possible that the Company's unrecognized tax benefits will materially change in the next 12 months.

Note 15. Commitments and Contingencies

Lease Commitments

The Company leases office and manufacturing facilities under non-cancelable operating leases expiring at various dates through December 2027, including office and manufacturing space in San Jose, California used as its corporate headquarters. The lessor company is owned by one of the Company's officers. Please see Note 17. Related Party Transactions. The Company also entered into capital leases for purchasing of information technology equipment.

As of December 31, 2020, future minimum lease payments under all non-cancelable capital and operating leases with an initial lease term in excess of one year were as follows (in thousands):

Years Ending December 31,	Capital Leases	Operating Leases
2021	\$ 217	\$ 4,036
2022	14	3,297
2023	—	3,357
2024	—	3,459
2025	—	3,563
Thereafter	—	7,450
Net minimum lease payments	231	\$ 25,162
Less amount representing interest	(7)	
Present value of net minimum lease payments	224	
Less current portion	(210)	
Long-term obligations as of December 31, 2020	\$ 14	

Rent expense under operating leases was approximately \$4.4 million, \$4.3 million and \$4.1 million, respectively, for 2020, 2019 and 2018.

Purchase and Other Commitments

The following table summarizes contractual obligations and commitments as of December 31, 2020 (in thousands):

Years Ending December 31,	Purchase Commitments	Other Contractual Commitments
2021	\$ 37,364	\$ 1,732
2022	—	706
Total	\$ 37,364	\$ 2,438

Purchase commitments represent outstanding purchase orders or commitments for goods or services with contract manufacturers and vendors that range mostly from one month up to a year. The Company uses several contract manufacturers to manufacture components, subassemblies and products. The Company provides these contract manufacturers with demand information and they use this information to acquire components and build products. Contract manufacturer commitments consist of obligations for on-hand inventories and non-cancelable purchase orders with contract manufactures. If the Company cancels all or part of the orders, it may still be liable to the contract manufacturers for the cost of the materials and components purchased by the subcontractors to manufacture the Company's products. The Company also obtains individual components for its products from a wide variety of individual suppliers. In addition, the Company has other contractual obligations for goods or services associated with its ordinary course of business.

Legal Proceedings

From time to time, the Company is involved in actions, claims, suits and other proceedings in the ordinary course of business, including assertions by third parties relating to intellectual property infringement, breaches of contract or warranties or employment-related matters. The Company is defending all current litigation matters. Although there can be no assurances and the outcome of these matters is currently not determinable (except as specifically described below), the Company currently believes that none of these claims or proceedings are likely to have a material adverse effect on the Company's financial position.

Quanergy Litigation

In September 2016, Quanergy Systems, Inc. (Quanergy) filed a complaint against the Company and one of its customers in the Northern District of California (the District Court litigation), seeking a declaratory judgment of non-infringement of one of the Company's patents, U.S. Patent No. 7,969,558 (the '558 patent) and asserting state and federal trade secret misappropriation claims against the Company and its customer and breach of contract and constructive fraud claims against its customer. In November 2016, Quanergy filed an amended complaint, removing its trade secret misappropriation claims against the Company, dropping its customer from the suit and dropping the related claims of breach and constructive fraud. The amended complaint maintained only the declaratory judgment of non-infringement action against the Company. In December 2016, the Company filed an answer generally denying the allegations and relief requested in Quanergy's amended complaint. The Company's answer also included counterclaims against Quanergy asserting direct, indirect, and willful infringement of the '558 patent. In January 2017, Quanergy filed an answer generally denying the allegations in the Company's patent infringement counterclaims and requesting relief. The court held a claim construction hearing on September 13, 2017 and issued a claim construction order on October 4, 2017, which adopted the majority of the Company's proposed constructions. In June 2018, the district court entered an order granting a joint stipulation to stay the litigation.

Quanergy filed two petitions for inter partes review with the U.S. Patent Office's Patent Trials and Appeal Board (PTAB) in November 2017, challenging all claims of the '558 patent that we asserted. The Company filed its Patent Owner Preliminary Response to Quanergy's petitions on March 7, 2018. The PTAB issued an institution decision on May 25, 2018, instituting review of all challenged claims. The Company subsequently filed its Patent Owner Response and a Contingent Motion to Amend the claims. The PTAB held oral argument on February 27, 2019. On May 23, 2019, the PTAB issued a Final Written Decision upholding the validity of all the challenged claims, finding that Quanergy did not prove by a preponderance of the evidence that any of the challenged claims of the '558 patent were unpatentable, and denying the Company's contingent motion as moot. In June 2019, Quanergy filed a request for rehearing. On July 21, 2020, Quanergy filed a Notice of Appeal, appealing the PTAB decision to the U.S. Court of Appeals for the Federal Circuit. Quanergy's opening appeal brief was filed on January 22, 2021. The Company's responsive appeal brief is due on April 2, 2021.

Hesai and RoboSense Litigation

On August 13, 2019, the Company filed separate complaints against Hesai Photonics Technology Co., Ltd. (Hesai) (5:19-cv-4742-EJD) and Suteng Innovation Technology Co., Ltd. (RoboSense) (5:19-cv-4746-EJD), in the United States District Court for the Northern District of California. These complaints allege infringement of the '558 patent by Hesai and RoboSense, respectively. In both cases, the Company sought, among other relief, a permanent injunction and to be determined monetary damages adequate to compensate us for the alleged infringement. Both cases were stayed pending resolution of the ITC investigation (No. 337-TA-1173). On July 8, 2020, Velodyne filed a Notice of Dismissal with Prejudice of the Hesai case (5:19-cv-4742-EJD) pursuant to the Litigation Settlement and Patent Cross License Agreement discussed further below. The Hesai case is now terminated. On September 30, 2020, the Company filed a Notice of Dismissal with Prejudice of the RoboSense case (5:19-cv-4746-EJD) pursuant to the Litigation Settlement and Patent Cross License Agreement discussed below. The RoboSense case is now terminated.

On August 15, 2019, the Company also filed a patent infringement complaint with the United States International Trade Commission (ITC) against Hesai and RoboSense. The complaint filed with the ITC alleges violations of Section 337 of the Tariff Act of 1930, as amended, by both Hesai and RoboSense and requests that the ITC investigate Hesai and RoboSense for unlawfully importing and selling products that infringe upon the '558 patent. On August 28, 2019, the Company filed a supplement with the ITC. The Company is asking the ITC to issue permanent limited exclusion orders and permanent cease and desist orders against Hesai and RoboSense to stop the importation and sale of the following products in the United States: (a) rotating 3-D lidar devices; (b) components thereof; and (c) sensing systems containing the same. On September 11, 2019, the Company received notice that the ITC instituted an investigation of Hesai and RoboSense (No. 337-TA-1173). On July 8, 2020, Velodyne and Hesai jointly moved to terminate the ITC investigation with respect to Hesai pursuant to the Litigation Settlement and Patent Cross License Agreement discussed further below. On July 13, 2020, the ALJ issued Order No. 33, granting the joint motion. Order No. 33 is an Initial Determination that terminates Hesai from the Investigation. On August 4, 2020, the Commission issued a Notice determining not to review the Initial Determination terminating the investigation as to

Hesai. As a result, the case against Hesai is now terminated. On September 30, 2020, Velodyne and RoboSense filed a Joint Motion for and Memorandum in Support of Termination of the Investigation based on the Litigation Settlement and Patent Cross License Agreement discussed further below. On October 1, 2020, the ALJ issued Order No. 48 granting the joint motion. Order No. 48 is an Initial Determination that terminates RoboSense from the Investigation. On October 15, 2020, the Commission issued a Notice determining not to review the Initial Determination terminating the investigation as to RoboSense. As a result, the case against RoboSense is now terminated.

On November 8, 2019, Velodyne Lidar, Inc., Velodyne Europe GmbH, Gotting KG, and IFTAS GmbH were sued by Hesai for alleged patent infringement before the District Court of Frankfurt, Germany (Docket No. 2-6 O 461/19). Hesai sought money damages and an injunction. On July 8, 2020, Hesai withdrew the case pursuant to the Litigation Settlement and Patent Cross License Agreement discussed further below. This case is now terminated.

On April 30, 2020, Hesai filed four cases in the Shanghai Intellectual Property Court against the Company, Beijing Velodyne Laser Technology Co., Ltd (Velodyne Beijing), and Shanghai Keming Instrument Co., Ltd (Keming) (collectively, Defendants). The cases were docketed by the court on May 6, 2020. Hesai asserts that the Defendants infringed three patents registered in the People's Republic of China. Each case sought an injunction and monetary damages. On July 8, 2020, Hesai withdrew the four China cases pursuant to the Litigation Settlement and Patent Cross License Agreement discussed below. These cases are now terminated.

On June 24, 2020, the Company entered into a Litigation Settlement and Patent Cross-License Agreement with Hesai to resolve all of the disputes between the parties, as described above, and agreed on the terms of a patent cross-license and releases of liability. Under the terms of the settlement, Hesai agreed to make a one-time payment to compensate the Company for Hesai's past use of the Company's technologies, will make annual fixed royalty payments through 2022, and thereafter, will make product sales royalty payments through February 2030. The parties also agreed to terminate all of the matters related to Hesai described above.

On September 21, 2020, Velodyne entered into a Litigation Settlement and Patent Cross-License Agreement with RoboSense to resolve all of the disputes between Velodyne and RoboSense, as described above, and agreed on the terms of a patent cross-license and releases of liability. The parties also agreed to terminate all of the litigation matters between Velodyne and RoboSense described above.

Employment Matters

On April 3, 2020, a former employee filed a class action lawsuit in the United States District Court for the Northern District of California. The complaint alleges that the Company violated the federal Worker Adjustment and Retraining Notification Act, or WARN Act, and California WARN Act in connection with its termination of the employment of the plaintiff and other similarly situated employees. The plaintiff seeks to certify the action as a class action and seeks various other remedies on behalf of himself and others, including unpaid wages, salaries, commissions, bonuses and other compensation and benefits that would have accrued during the following 60 days. The parties have reached an agreement to resolve the case and the plaintiff filed a voluntary dismissal of the case on June 29, 2020 in accordance with the terms of the settlement. This case is now terminated.

On June 8, 2020, a former employee filed a class action lawsuit in the Santa Clara County Superior Court of the State of California. The complaint alleges that, among other things, the Company failed to pay minimum and overtime wages, final wages at termination, and other claims based on meal periods and rest breaks. The plaintiff is bringing this lawsuit on behalf of herself and other similarly situated plaintiffs who have not been identified and is seeking to certify the action as a class action. The plaintiff has now filed a First Amended Complaint that adds a claim pursuant to California's Private Attorneys General Act. The First Amended Complaint does not specify the amount the plaintiff seeks to recover. Velodyne's response to the First Amended Complaint was filed on November 16, 2020 and the parties are in the process of beginning discovery concerning class certification issues. The Court has scheduled a Case Management Conference for May 26, 2021.

Business Combination

On August 4, 2020, a purported shareholder of Graf commenced a putative class action against Graf and its directors in the Supreme Court of the State of New York, New York County. The Plaintiff alleges that the Board members, aided and abetted by Graf, breached their fiduciary duties by entering into the Merger Agreement with Velodyne. The Plaintiff alleges that the Merger Agreement undervalues Graf, was the result of an improper process and that Graf's disclosure concerning the proposed Merger is inadequate. As a result of these alleged breaches of fiduciary duty, the Plaintiff seeks, among other things, an award of rescissory damages. The Company believes the claim is without merit and intends to defend itself vigorously.

Securities Litigation Matters

On March 3, 2021, a purported shareholder of Velodyne filed a complaint for a putative class action against Velodyne, Anand Gopalan and Andrew Hamer in the United States District Court, Northern District of California, Case No. 21-cv-01486. The complaint alleges purported violations of the federal securities laws and that, among other things, the defendants made materially false and/or misleading statements and failed to disclose material facts about the Company's business, operations and prospects. The complaint alleges that purported class members have suffered losses. The complaint seeks, among other things, an award of compensatory damages. The Company believes the claim is without merit and intend to defend ourselves vigorously.

On March 12, 2021, Robert Reese, a purported shareholder of the Company, filed a putative class action lawsuit entitled *Reese v. Velodyne Lidar, Inc., et al.*, No. 3:21-cv-01736, against the Company and two of its current officers, CEO Anand Gopalan and CFO Andrew Hamer (the "Officers") in the United States District Court for the Northern District of California. The plaintiff seeks unspecified damages on behalf of a putative class of persons who purchased or otherwise acquired the Company's common stock between November 9, 2020 and February 19, 2021. The complaint alleges that the defendants violated federal securities laws by making allegedly false and misleading statements and omitting certain material facts in certain public statements in the Company's filings with the SEC. The Company and the Officers intend to deny all liability in this action and to defend against the lawsuit vigorously. This lawsuit mirrors the allegations asserted in the previously-filed case entitled *Moradpour v. Velodyne Lidar, Inc., et al.*, No. 3:21-cv-01482, which was filed in the same judicial district on March 2, 2021. The two cases are likely to be consolidated and effectively proceed as a single litigation.

On March 12, 2021, a shareholder derivative lawsuit was filed by Peter D'Arcy against current and former Velodyne Board members and/or officers Anand Gopalan, Andrew Hamer, David S. Hall, Marta Thoma Hall, Joseph B. Culkin, Michael E. Dee, James A. Graf, Barbara Samardzich, and Christopher A. Thomas, and against Velodyne Lidar, Inc. as a nominal defendant. The case, filed in the United States District Court for the District of Delaware, asserts claims of breach of fiduciary duty, unjust enrichment, abuse of control, gross mismanagement, and waste of corporate assets against all of the individual defendants, and asserts a contribution claim against Gopalan and Hamer. The allegations center on recent public statements and securities filings made by Velodyne, beginning with the company's November 9, 2020 Form 10-Q and continuing through the Form 8-K filed on March 4, 2021, and on recent public statements and securities filings made by David Hall and Marta Thoma Hall. On March 16, 2021, a second shareholder derivative lawsuit was filed in the United States District Court for the District of Delaware by purported shareholders David Kondner and Brandon Jordan against the same defendants as named in D'Arcy's complaint. The complaint by Kondner and Jordan makes similar allegations as those in D'Arcy's complaint and seeks damages purportedly on behalf of the Company for alleged breaches of fiduciary duty and waste of corporate assets by the defendants. Velodyne intends to retain counsel and vigorously contest the allegations in both actions.

Accruals for Loss Contingencies

The Company records accruals for outstanding legal proceedings, investigations or claims when it is probable that a liability will be incurred and the amount of loss can be reasonably estimated. The Company evaluated developments in legal proceedings, investigations or claims that could affect the amount of any accrual, as well as any developments that would result in a loss contingency to become both probable and reasonably estimable. During 2020, the Company had accrued and paid \$2.4 million for loss contingencies in connection with the settlement of certain employment related legal proceedings. As of December 31, 2020 the Company has not recorded any significant accrual for loss contingencies associated with such legal claims or litigation discussed above.

Note 16. Segment, Geographic and Customer Concentration Information

The Company conducts its business in one operating segment that develops and produces Lidar sensors for use in industrial, 3D mapping, drones and auto applications. The Company's Chief Executive Officer is the chief operating decision maker (CODM). The CODM allocates resources and makes operating decisions based on financial information presented on a consolidated basis, accompanied by disaggregated information about sales and gross margin by product group. The profitability of the Company's product group is not a determining factor in allocating resources and the CODM does not evaluate profitability below the level of the consolidated company.

The Company reports revenue by region and country based on the location where its customers accept delivery of its products and services. Revenue by region was as follows (dollar amount in thousands):

	Year Ended December 31,					
	2020		2019		2018	
	Revenue	% of Revenue	Revenue	% of Revenue	Revenue	% of Revenue
Revenue by geography:						
North America	\$ 41,228	43 %	\$ 49,634	49 %	\$ 84,541	59 %
Asia Pacific	39,310	41 %	28,791	28 %	39,770	28 %
Europe, Middle East and Africa	14,824	16 %	22,973	23 %	18,635	13 %
Total	\$ 95,362	100 %	\$ 101,398	100 %	\$ 142,946	100 %

Revenue by countries and customers accounted for more than 10% of revenue was as follows:

	Year Ended December 31,		
	2020	2019	2018
Countries over 10% of Revenue:			
U.S.	34 %	46 %	59 %
China	31 %	11 %	21 %
Number of Customers accounted for over 10% of Revenue:	2	2	2

The Company's long-lived assets, consisting primarily of property, plant and equipment, were primarily located in the United States as of December 31, 2020 and December 31, 2019.

Note 17. Related Party Transactions

Four holders of the pre-combination Velodyne's convertible preferred stock (which converted into common stock of the Company upon the Business Combination) purchased products and services, directly or through a third party, from the Company. Revenue and accounts receivable for these holders were as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Revenue:			
Stockholder A ⁽¹⁾	\$ 465	\$ (3,514)	\$ 9,447
Stockholder B	7,008	1,391	508
Stockholder C	764	6,148	18
Stockholder D	46	—	—
		December 31,	
		2020	2019
Accounts receivable:			
Stockholder A		\$ —	\$ 9
Stockholder B		3,085	1,404

(1) The 2019 amounts included a \$4.1 million refund, net of taxes, the Company issued to entities affiliated with the stockholder in October 2019 and accrued as of September 30, 2019, in order to compensate them for unforeseen challenges associated with the use of certain new products purchased from the Company in 2018. The products purchased by these entities in 2018 were still under development at the time and the Company felt it appropriate to compensate these early purchasers for working with a new product.

In April 2019, the Company entered into a manufacturing agreement with one of its Series B Preferred Stockholders (Stockholder D), and the Company has one product that is currently being manufactured by Stockholder D. As of December 31, 2020 and December 31, 2019, the Company had \$6.3 million and \$2.7 million, respectively, of payable and accrued purchases and \$15.0 million and \$24.9 million, respectively, of outstanding purchase commitments for products with this stockholder. The Company procures equipment, materials and components for Stockholder D to build the product and had \$1.5 million and \$2.7 million, respectively, of receivables from this stockholder which was included in other current assets as of December 31, 2020 and December 31, 2019. During 2020, the Company also loaned to Stockholder D manufacturing equipment with a net book value of \$0.4 million as of December 31, 2020, which was included in the Company's balance sheet within property, plant and equipment, net.

On September 29, 2020, in connection with the Business Combination, the Company repurchased 175,744 shares of common stock (post-conversion) from certain holders of pre-combination Velodyne's common stock, who are family members of one of the Company's officers.

The Company currently rents its corporate headquarters facility in San Jose, California from a company owned by one of its officers. The lease was executed in January 2017 and expires in December 2027, as amended. As of December 31, 2020, future minimum lease payments totaled \$24.3 million related to this facility. Rent expense under this lease was \$3.3 million, \$3.1 million and \$3.0 million, respectively, for 2020, 2019 and 2018.

In January 2017 and December 2016, the Company issued two interest-bearing unsecured promissory notes totaling \$3.5 million to one of its officers for purposes of financing the acquisition of the above headquarters facility. The loan accrued interest at a rate of 3.15% per annum. As of December 31, 2019, immediately prior to repayment, the aggregate outstanding balance of the loan was approximately \$3.6 million, including aggregate accrued and unpaid interest of \$0.1 million. The officer made monthly interest-only payments to the Company on the loan beginning in December 2017 and repaid all outstanding principal and interest due under the two promissory notes on December 31, 2019.

In August 2016, the Company entered into an agreement with one of its officers and Velodyne Acoustics, LLC (Acoustics), a company formerly owned by the officer. Pursuant to which Acoustics agreed to, among other things, indemnify, defend and hold harmless the pre-combination Velodyne from and against any and all liabilities relating to, arising out of or resulting from certain litigation matters (Litigation Indemnification Agreement). The litigation matters giving rise to the indemnification obligations involved certain employment-related claims of two former employees of Velodyne Acoustics, which was the predecessor of Acoustics. In November 2019, the Company elected not to seek indemnification from Acoustics for the litigation matters under the terms of the Litigation Indemnification Agreement and assumed control and financial responsibility for the litigation matters. By not seeking indemnification from Acoustics, the Company has paid approximately \$2.5 million in settlements in connection with the litigation matters and \$2.5 million in legal costs as of December 31, 2020, all of which are included in general and administration in the statement of operations. Such payments and costs incurred that were the subject of the Litigation Indemnification Agreement indirectly benefit the officer and controlling shareholder of the Company, the former sole owner of Acoustics. The Company believes that the litigation matters covered by the Litigation Indemnification Agreement are complete and the Company does not expect to incur additional expenses related to these litigation matters.

Note 18. Quarterly Results of Operations (Unaudited)

The following table represents selected quarterly results of operations information (in thousands, except share and per share data):

	Three Months Ended							
	Mar. 31, 2019	Jun. 30, 2019	Sep. 30, 2019	Dec. 31, 2019	Mar. 31, 2020	Jun. 30, 2020	Sep. 30, 2020	Dec. 31, 2020
	(in thousands)							
Total revenue	\$ 39,823	\$ 29,086	\$ 13,517	\$ 18,972	\$ 17,031	\$ 28,386	\$ 32,099	\$ 17,846
Gross profit (loss)	18,985	11,652	(1,093)	224	1,602	13,886	14,969	(5,341)
Operating loss	(2,642)	(9,719)	(26,888)	(29,764)	(30,003)	(9,705)	(2,742)	(111,454)
Provision for (benefit from) income taxes	27	25	70	(805)	(6,677)	17	2,562	14
Net loss	(2,182)	(9,476)	(26,827)	(28,741)	(23,385)	(9,727)	(5,295)	(111,457)
Net loss per share, basic and diluted	\$ (0.02)	\$ (0.07)	\$ (0.20)	\$ (0.21)	\$ (0.17)	\$ (0.07)	\$ (0.04)	\$ (0.64)

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosures

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and chief financial officer, have evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Annual Report on Form 10-K. The term “disclosure controls and procedures,” as defined in Rules 13a15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the rules and forms of the Securities and Exchange Commission, or SEC. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of the end of the period covered by this Annual Report on Form 10-K, our chief executive officer and chief financial officer concluded that, our disclosure controls and procedures were not effective as of December 31, 2020 because of the material weakness in our internal control over financial reporting described below.

Management’s Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, our principal executive and principal financial officers and effected by the Board, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures of us are being made only in accordance with authorizations of management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2020. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework (2013). Based on this assessment, our management concluded that our internal control over financial reporting was not effective as of December 31, 2020 because of the material weakness identified in connection with our failure to adequately review revenue schedules associated with non-standard revenue arrangements, which resulted in misstatements of revenue and deferred revenue for the three months ended December 31, 2020, which have been corrected as of year-end.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented or detected on a timely basis.

Remediation Plan and Status

We are currently in the process of remediating the material weakness and have taken and continue to take steps that we believe will address the underlying causes of the material weakness, which includes the following steps:

- We have enhanced the review process surrounding the quarterly and annual assessment of the ongoing status of standard and non-standard agreements and schedules.
- We have designed new controls and procedures associated with non-standard agreements and schedules, which requires incremental levels of accounting review, and
- We intend to hire additional resources with the relevant experience to strengthen our contract review processes.

The material weakness will not be considered fully remediated until all aspects of the controls operate for a sufficient period of time to allow management to conclude that these controls are operating effectively. We will monitor the effectiveness of our remediation plan and steps and will refine the remediation plan as appropriate.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) or 15d-15(d) of the Exchange Act during the quarter ended December 31, 2020, that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting other than the identification of a material weakness related to our process and controls over tracking and reporting whistleblower complaints and litigation matters that was remediated in the fourth quarter. Although we have modified our workplace practices due to the COVID-19 pandemic, resulting in most of our employees working remotely, this has not meaningfully affected our internal control over financial reporting. We are continually monitoring and assessing the COVID-19 situation on our internal control to minimize the impact on their design and operating effectiveness.

Item 9B. Other Information

None.

PART III.

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item 10 is incorporated herein by reference to the definitive Proxy Statement for our 2021 annual meeting of stockholders to be filed with the SEC within 120 days after the end of fiscal year 2020.

Item 11. Executive Compensation

The information regarding executive compensation required by this Item 11 is incorporated herein by reference to the definitive Proxy Statement for our 2021 annual meeting of stockholders to be filed with the SEC within 120 days after the end of fiscal year 2020.

Item 12. Security Ownership of Certain Beneficial Owner and Management and Related Stockholder Matters

The information regarding security ownership of certain beneficial owners and management and related stockholder matters required by this Item 12 is incorporated herein by reference to the definitive Proxy Statement for our 2021 annual meeting of stockholders to be filed with the SEC within 120 days after the end of fiscal year 2020.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information regarding certain relationships, related transactions and director independence required by this Item 13 is incorporated herein by reference to the definitive Proxy Statement for our 2021 annual meeting of stockholders to be filed with the SEC within 120 days after the end of fiscal year 2020.

Item 14. Principal Accounting Fees and Services

The information regarding principal accounting fees and services required by this Item 14 is incorporated herein by reference to the definitive Proxy Statement for our 2021 annual meeting of stockholders to be filed with the SEC within 120 days after the end of fiscal year 2020.

PART IV.

Item 15. Exhibits, Financial Statement Schedules

(a) The following are filed as part of this Annual Report on Form 10-K:

1. Financial Statements

The following consolidated financial statements are included in Item 8 of this Annual Report on Form 10-K:

	Page
Report of Independent Registered Public Accounting Firm	55
Consolidated Balance Sheets	56
Consolidated Statements of Operations	57
Consolidated Statements of Comprehensive Loss	58
Consolidated Statements of Stockholders' Equity	59
Consolidated Statements of Cash Flows	60
Notes to Consolidated Financial Statements	61

2. Financial Statement Schedules

Schedules not filed have been omitted because they are not applicable, are not required or the information required to be set forth therein is included in the financial statements or notes thereto.

3. Exhibits.

The documents set forth below are filed herewith or incorporated by reference to the location indicated.

Exhibit No.	Description
2.1†	Agreement and Plan of Merger, dated as of July 2, 2020, by and among Graf Industrial Corp., VL Merger Sub Inc. and Velodyne Lidar, Inc. (incorporated by reference to Annex A to Graf Industrial Corp.'s Preliminary Proxy Statement (File No. 001-38703) filed with the SEC on July 15, 2020).
2.2†	Amendment to Agreement and Plan of Merger, dated as of August 20, 2020, by and among Graf Industrial Corp., VL Merger Sub Inc. and Velodyne Lidar, Inc. (incorporated by reference to Annex A-2 to Amendment No. 1 to Graf Industrial Corp.'s Preliminary Proxy Statement (File No. 001-38703) filed with the SEC on August 21, 2020).
2.3†	Letter Acknowledgment, dated as of August 20, 2020 (incorporated by reference to Annex A-3 to Amendment No. 1 to Graf Industrial Corp.'s Preliminary Proxy Statement (File No. 001-38703) filed with the SEC on August 21, 2020).
3.1	Amended and Restated Certificate of Incorporation of Velodyne Lidar, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 5, 2020).
3.2	Bylaws of Velodyne Lidar, Inc. (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 5, 2020).
4.1	Description of Registered Securities.
4.2	Specimen Common Stock Certificate of Graf Industrial Corp. (incorporated by reference to Exhibit 4.2 of Graf Industrial Corp.'s Registration Statement on Form S-1/A (Registration No. 333-227396) filed with the SEC on October 9, 2018).
4.3	Amended and Restated Investors' Rights Agreement, dated October 25, 2019, by and among Velodyne Lidar, Inc. and the parties thereto (incorporated by reference to Exhibit 4.2 of the Registrant's Registration Statement on Form S-1/A (Registration No. 333-249551) filed with the SEC on October 30, 2020).
4.4	Warrant Agreement, dated October 14, 2018, by and between Continental Stock Transfer & Trust Company and the Registrant (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 18, 2018).
10.1	Support Agreement, dated as of July 2, 2020, by and among Graf Industrial Corp., VL Merger Sub Inc. and Graf Industrial Corp. (incorporated by reference to Annex C to Graf Industrial Corp.'s Preliminary Proxy Statement (File No. 001-38703) filed with the SEC on July 15, 2020).
10.2	Sponsor Agreement, dated as of July 2, 2020, by and among Graf Industrial Corp., Graf Acquisition LLC and Velodyne Lidar, Inc. (incorporated by reference to Annex D to Graf Industrial Corp.'s Preliminary Proxy Statement (File No. 001-38703) filed with the SEC on July 15, 2020).
10.3	Form of Subscription Agreement of Graf Industrial Corp. (incorporated by reference to Annex E to Graf Industrial Corp.'s Preliminary Proxy Statement (File No. 001-38703) filed with the SEC on July 15, 2020).
10.4†	AIR Commercial Real Estate Association Standard Industrial/Commercial Single Tenant Lease by and between Registrant and Hellyer-DMHall Properties, LLC, dated January 9, 2017 and addendum thereto, dated January 10, 2017, as amended on February 28, 2017 (incorporated by reference to Exhibit 10.13 to the Registrant's Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 5, 2020).
10.5	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 5, 2020).
10.6	Promissory Note, dated June 26, 2018, issued to Graf Acquisition LLC (incorporated by reference to Exhibit 10.2 to Graf Industrial Corp.'s Registration Statement on Form S-1 (File No. 333-227396) filed with the SEC on September 18, 2018).
10.7	Letter Agreement, dated October 15, 2018, by and among the Company, its officers, its directors and Graf Acquisition LLC. (incorporated by reference to Exhibit 10.1 to Graf Industrial Corp.'s Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 18, 2018).
10.8	Investment Management Trust Agreement, dated October 15, 2018, by and between the Company and Continental Stock Transfer & Trust Company, as trustee. (incorporated by reference to Exhibit 10.2 to Graf Industrial Corp.'s Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 18, 2018).

10.9	Registration Rights Agreement, dated October 15, 2018, by and between the Company, Graf Acquisition LLC and the Company's independent directors (incorporated by reference to Exhibit 10.3 to Graf Industrial Corp.'s Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 18, 2018).
10.10	Private Placement Warrants Purchase Agreement, dated October 9, 2018, by and between the Company and Graf Acquisition LLC (incorporated by reference to Exhibit 10.6 to Graf Industrial Corp.'s Registration Statement on Form S-1/A (File No. 333-227396) filed with the Commission on October 9, 2018).
10.11	Administrative Support Agreement, dated October 15, 2018, by and among the Registrant and PSI Capital Inc. (incorporated by reference to Exhibit 10.5 to Graf Industrial Corp.'s Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 18, 2018).
10.12	Convertible Promissory Note, dated as of August 5, 2020, issued to Graf Acquisition LLC (incorporated by reference to Exhibit 10.1 to Graf Industrial Corp.'s Current Report on Form 8-K (File No. 001-38703) filed with the SEC on August 6, 2020).
10.13*	The Registrant's 2020 Equity Incentive Plan, including form agreements (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 5, 2020).
10.14*	The Registrant's 2020 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 5, 2020).
10.15*	License and Supply Agreement by and between Registrant and Veoneer, Inc., dated January 7, 2019 (incorporated by reference to Exhibit 10.12 to the Registrant's Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 5, 2020).
10.16**	2016 Stock Plan and forms of agreements thereunder (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 5, 2020).
10.17*	2007 Equity Incentive Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 5, 2020).
10.18*	Form of Equity Cancellation and Substitution Agreement for former Velodyne equity award holders (incorporated by reference to Exhibit 10.6 to the Registrant's Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 5, 2020).
10.19*	Employment Agreement by and between Registrant and Andrew Hamer, dated July 3, 2019 (incorporated by reference to Exhibit 10.7 to the Registrant's Current Report on Form 8-K (File No. 001-38703) filed with the SEC on October 5, 2020).
10.20*	Employment Agreement by and between Registrant and Anand Gopalan, dated January 13, 2021.
21.1	List of Subsidiaries of the Registrant.
23.1	Consent of KPMG LLP, independent registered public accounting firm.
24.1	Power of Attorney (included on signature page to this Form 10-K).
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1 [^]	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2 [^]	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File - The cover page from this Annual Report on Form 10-K is formatted in iXBRL.

† Certain exhibits and schedules to this exhibit have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The registrant agrees to furnish a copy of the omitted exhibits and schedules to the SEC on a supplemental basis upon its request.

* Indicates a management contract or compensatory plan or arrangement.

** Portions of this exhibit have been omitted pursuant to Item 601(b)(10) of Regulation S-K. The registrant agrees to furnish to the Securities and Exchange Commission a copy of any omitted portions of the exhibit upon request.

(^) In accordance with Item 601(b)(32)(ii) of Regulation S-K and SEC Release No. 34-47986, the certifications furnished in Exhibit 32.1 hereto are deemed to accompany this Annual Report on Form 10-K and will not be deemed “filed” for purposes of Section 18 of the Exchange Act or deemed to be incorporated by reference into any filing under the Exchange Act or the Securities Act except to the extent that the registrant specifically incorporates it by reference.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: March 16, 2021

VELOCITYNE LIDAR, INC.

/s/ Anand Gopalan

Anand Gopalan
Chief Executive Officer and Director
(Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS that each person whose signature appears below constitutes and appoints Anand Gopalan and Andrew Hamer and each of them, his or her true and lawful attorneys-in-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this report, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this report has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated.

Name	Title	Date
<hr/> /s/ Anand Gopalan Anand Gopalan	Chief Executive Officer and Director (Principal Executive Officer)	March 16, 2021
<hr/> /s/ Andrew Hamer Andrew Hamer	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 16, 2021
<hr/> /s/ Joseph B. Culkin Joseph B. Culkin	Chairman and Director	March 16, 2021
<hr/> /s/ Michael E. Dee Michael E. Dee	Director	March 16, 2021
<hr/> Marta Thoma Hall	Director	

/s/ Barbara Samardzich

Barbara Samardzich

Director

March 16, 2021

/s/ Christopher Thomas

Christopher Thomas

Director

March 16, 2021

/s/ Hamid Zarringalam

Hamid Zarringalam

Director

March 16, 2021

Deborah Hersman

Director

**DESCRIPTION OF THE COMPANY'S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES
EXCHANGE ACT OF 1934, AS AMENDED**

Authorized and Outstanding Stock

Pursuant to our Amended and Restated Certificate of Incorporation, our authorized capital stock consists of 2,250,000,000 shares of common stock, \$0.0001 par value per share and 25,000,000 shares of preferred stock, par value \$0.0001 per share. The following description summarizes the material terms of our capital stock. Because it is only a summary, it may not contain all the information that is important to an investor in our securities.

Defined terms used and not defined herein shall have the meaning ascribed to such terms in our Annual Report on Form 10-K.

Common Stock

Voting Power

Except as otherwise required by law or as otherwise provided in any certificate of designation for any series of preferred stock, under our Amended and Restated Certificate of Incorporation, the holders of common stock possess all voting power for the election of our directors and all other matters requiring stockholder action and are entitled to one vote per share on matters to be voted on by stockholders. The holders of common stock shall at all times vote together as one class on all matters submitted to a vote of the holders of common stock under our Amended and Restated Certificate of Incorporation.

Dividends

Subject to the rights, if any, of the holders of any outstanding shares of preferred stock, under our Amended and Restated Certificate of Incorporation, holders of common stock will be entitled to receive such dividends and other distributions, if any, as may be declared from time to time by our Board in its discretion out of funds legally available therefor and shall share equally on a per share basis in such dividends and distributions.

Liquidation, Dissolution and Winding Up

In the event of the voluntary or involuntary liquidation, dissolution or winding-up of our company under our Amended and Restated Certificate of Incorporation, the holders of common stock will be entitled to receive all the remaining assets available for distribution to stockholders, ratably in proportion to the number of shares of common stock held by them, after the rights of the holders of the preferred stock have been satisfied.

Preemptive or Other Rights

There are no preemptive or other subscription rights granted to holders of our common stock under our Amended and Restated Certificate of Incorporation, and there are no sinking fund or redemption provisions applicable to our common stock.

Election of Directors

Our Board is currently divided into three classes, Class I, Class II and Class III, with only one class of directors being elected in each year and each class (except for those directors appointed prior to our first annual meeting of stockholders) serving a three-year term. Under the terms of our Amended and Restated Certificate of Incorporation, the term of the Class I Directors in place at such time will expire at the 2021 annual meeting of the stockholders; the term of the Class II Directors in place at such time will expire at the second annual meeting of the stockholders following effectiveness of our Amended and Restated Certificate of Incorporation; and the term of the Class III

Directors in place at such time will expire at the third annual meeting of the stockholders following effectiveness of our Amended and Restated Certificate of Incorporation.

Preferred Stock

Our Amended and Restated Certificate of Incorporation provides that shares of preferred stock may be issued from time to time in one or more series. Our Board is authorized to fix the voting rights, if any, designations, powers, preferences and relative, participating, optional, special and other rights, if any, and any qualifications, limitations and restrictions thereof, applicable to the shares of each series. Our Board is able, without stockholder approval, to issue preferred stock with voting and other rights that could adversely affect the voting power and other rights of the holders of the common stock and could have anti-takeover effects.

Dividends

We have not paid any cash dividends on our common stock to date. The payment of cash dividends in the future will be dependent upon our revenues and earnings, if any, capital requirements and general financial condition subsequent to completion of a business combination. The payment of any cash dividends subsequent to a business combination will be within the discretion of our Board at such time. In addition, our Board is not currently contemplating and does not anticipate declaring any stock dividends in the foreseeable future. Further, if we incur any indebtedness, our ability to declare dividends may be limited by restrictive covenants we may agree to in connection therewith.

Transfer Agent

The Transfer Agent for our common stock is Continental Stock Transfer & Trust Company. We have agreed to indemnify Continental Stock Transfer & Trust Company in its role as transfer agent, its agents and each of its stockholders, directors, officers and employees against all liabilities, including judgments, costs and reasonable counsel fees that may arise out of acts performed or omitted for its activities in that capacity, except for any liability due to any gross negligence, willful misconduct or bad faith of the indemnified person or entity.

Certain Anti-Takeover Provisions of Delaware Law, and Our Amended and Restated Certificate of Incorporation and Bylaws

Provisions of the Delaware General Corporation Law (“DGCL”) and our Amended and Restated Certificate of Incorporation could make it more difficult to acquire us by means of a tender offer, a proxy contest or otherwise, or to remove incumbent officers and directors. These provisions, summarized below, are intended to discourage coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of us to first negotiate with the board of directors. We believe that the benefits of these provisions outweigh the disadvantages of discouraging certain takeover or acquisition proposals because, among other things, negotiation of these proposals could result in an improvement of their terms and enhance the ability of our Board to maximize stockholder value. However, these provisions may delay, deter or prevent a merger or acquisition of us that a stockholder might consider is in its best interest, including those attempts that might result in a premium over the prevailing market price of the common stock.

We currently opt out of the provisions of Section 203 of the DGCL, which we refer to as “*Section 203*,” regulating corporate takeovers. Our Amended and Restated Certificate of Incorporation includes a provision that is substantially similar to Section 203, but excludes David S. Hall and his respective successors, affiliates and associates from the definition of “interested stockholder” because such stockholders hold voting power in excess of the 15% threshold under Section 203. David S. Hall and his respective successors, affiliates and associates are “interested stockholders” within the meaning of Section 203, but are not subject to the restrictions on business combinations set forth in Section 203, as our Board approved the Business Combination in which such stockholders became interested stockholders prior to the time they became interested stockholders. The provisions in our Amended and Restated Certificate of Incorporation with regards to Section 203 take effect 12 months after the filing of the Amended and Restated Certificate of Incorporation with the Delaware Secretary of State. Section 203 prevents certain Delaware corporations, under certain circumstances, from engaging in a business combination with (i) a stockholder who owns fifteen percent (15%) or more of our outstanding voting stock (otherwise known as an

“interested stockholder”); (ii) an affiliate of an interested stockholder; or (iii) an associate of an interested stockholder, in each case, for three years following the date that such stockholder became an interested stockholder.

A business combination includes a merger or sale of more than 10% of our assets. However, the above provisions of Section 203 do not apply if:

- our Board approves the transaction that made the stockholder an “interested stockholder,” prior to the date of the transaction;
- after the completion of the transaction that resulted in the stockholder becoming an interested stockholder, that stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, other than statutorily excluded shares of common stock; or
- on or subsequent to the date of the transaction, the business combination is approved by our Board and authorized at a meeting of our stockholders, and not by written consent, by an affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

The approval by affirmative vote of the holders of at least two-thirds of our common stock is required to make any amendment to key provisions of our Amended and Restated Certificate of Incorporation or our bylaws.

In addition, our Amended and Restated Certificate of Incorporation provides for certain other provisions that may have an anti-takeover effect:

- There is no cumulative voting with respect to the election of directors.
- Our Board is empowered to elect a director to fill a vacancy created by the expansion of the Board or the resignation, death, or removal of a director in certain circumstances.
- Directors may only be removed from the Board for cause.
- A prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders.
- A prohibition on stockholders calling a special meeting and the requirement that a meeting of stockholders may only be called by members of our Board, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors.
- Our authorized but unissued common stock and preferred stock are available for future issuances without stockholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions and employee benefit plans. Our Board is entitled, without further stockholder approval, to designate one or more series of preferred stock and the associated voting rights, preferences and privileges of such series of preferred stock. The existence of authorized but unissued and unreserved common stock and preferred stock could render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Forum Selection Clause

Our Amended and Restated Certificate of Incorporation includes a forum selection clause. The Amended and Restated Certificate of Incorporation provides that, subject to limited exceptions, the Court of Chancery of the State of Delaware and federal court within the State of Delaware will be exclusive forums for any (i) derivative action or proceeding brought on our behalf; (ii) action asserting a claim of breach of fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders; (iii) action asserting a claim against us arising pursuant to any provision of the DGCL, our Amended and Restated Certificate of Incorporation or bylaws; or (iv) other action asserting a claim against us that is governed by the internal affairs doctrine. This choice of forum provision does not apply to actions brought to enforce a duty or liability created by the Exchange Act or any other claim for which federal courts have exclusive jurisdiction. Furthermore, unless we consent in writing to the selection

of an alternative forum, the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. We intend for this provision to apply to any complaints asserting a cause of action under the Securities Act despite the fact that Section 22 of the Securities Act creates concurrent jurisdiction for the federal and state courts over all actions brought to enforce any duty or liability created by the Securities Act or the rules and regulations promulgated thereunder.

Warrants

Each warrant entitles the registered holder thereof to purchase three-quarters of one share of our common stock at a price of \$11.50 per whole share, subject to adjustment in either case as discussed below. Pursuant to the warrant agreement, a warrant holder may exercise its warrants only for a whole number of shares of common stock. This means that no fractional shares will be issued upon exercise of the warrants. If, upon exercise of the warrants, a holder would be entitled to receive a fractional interest in a share, we will, upon exercise, round down to the nearest whole number the number of shares of common stock to be issued to the warrant holder. The warrants will expire five years after the completion of the Business Combination, at 5:00 p.m., New York City time, or earlier upon redemption or liquidation.

We are not obligated to deliver any shares of common stock pursuant to the exercise of a warrant and have no obligation to settle such warrant exercise unless a registration statement under the Securities Act with respect to the shares of common stock underlying the warrants is then effective and a prospectus relating thereto is current, subject to our satisfying our obligations described below with respect to registration. No warrant will be exercisable and we will not be obligated to issue shares of common stock upon exercise of a warrant unless common stock issuable upon such warrant exercise has been registered, qualified or deemed to be exempt under the securities laws of the state of residence of the registered holder of the warrants. In the event that the conditions in the two immediately preceding sentences are not satisfied with respect to a warrant, the holder of such warrant will not be entitled to exercise such warrant and such warrant may have no value and expire worthless. In no event will we be required to net cash settle any warrant.

During any period when we have failed to maintain an effective registration statement covering the shares of common stock issuable upon exercise of the warrants, warrant holders may exercise warrants on a “cashless basis” in accordance with Section 3(a)(9) of the Securities Act or another exemption. Notwithstanding the above, if our common stock is at the time of any exercise of a warrant not listed on a national securities exchange such that it satisfies the definition of a “covered security” under Section 18(b)(1) of the Securities Act, we may, at our option, require holders of public warrants who exercise their warrants to do so on a “cashless basis” in accordance with Section 3(a)(9) of the Securities Act and, in the event we so elect, we will not be required to file or maintain in effect a registration statement, and in the event we do not so elect, we will use our best efforts to register or qualify the shares under applicable blue sky laws to the extent an exemption is not available.

We may call the warrants for redemption:

- in whole and not in part;
- at a price of \$0.01 per warrant;
- upon not less than 30 days’ prior written notice of redemption (the “30-day redemption period”) to each warrant holder; and if, and only if, the reported last sale price of the common stock equals or exceeds \$18.00 per share (as adjusted for stock splits, stock dividends, reorganizations, recapitalizations and the like) for any 20 trading days within a 30-trading day period ending three business days before we send the notice of redemption to the warrant holders.

If and when the warrants become redeemable by us, we may exercise our redemption right even if we are unable to register or qualify the underlying securities for sale under all applicable state securities laws. We will use our best efforts to register or qualify such shares of common stock under the blue sky laws of the state of residence in those states in which the warrants were offered by Graf in its IPO.

We have established the last of the redemption criterion discussed above to prevent a redemption call unless there is at the time of the call a significant premium to the warrant exercise price. If the foregoing conditions are satisfied and we issue a notice of redemption of the warrants, each warrant holder will be entitled to exercise its warrant prior to the scheduled redemption date. However, the price of the common stock may fall below the \$18.00 redemption trigger price (as adjusted for stock splits, stock dividends, reorganizations, recapitalizations and the like) as well as the \$11.50 warrant exercise price after the redemption notice is issued.

If we call the warrants for redemption as described above, our management will have the option to require any holder that wishes to exercise its warrant to do so on a "cashless basis." In determining whether to require all holders to exercise their warrants on a "cashless basis," our management will consider, among other factors, our cash position, the number of warrants that are outstanding and the dilutive effect on our stockholders of issuing the maximum number of shares of common stock issuable upon the exercise of our warrants. If our management takes advantage of this option, all holders of warrants would pay the exercise price by surrendering their warrants for that number of shares of common stock equal to the quotient obtained by dividing (x) the product of the number of shares of common stock underlying the warrants, multiplied by the excess of the "fair market value" of our common stock (defined below) over the exercise price of the warrants by (y) the fair market value. The "fair market value" shall mean the average reported last sale price of the common stock for the 10 trading days ending on the third trading day prior to the date on which the notice of redemption is sent to the holders of warrants. If our management takes advantage of this option, the notice of redemption will contain the information necessary to calculate the number of shares of common stock to be received upon exercise of the warrants, including the "fair market value" in such case. Requiring a cashless exercise in this manner will reduce the number of shares to be issued and thereby lessen the dilutive effect of a warrant redemption. If we call our warrants for redemption and our management does not take advantage of this option, our sponsor and its permitted transferees would still be entitled to exercise their private placement warrants for cash or on a cashless basis using the same formula described above that other warrant holders would have been required to use had all warrant holders been required to exercise their warrants on a cashless basis, as described in more detail below.

A holder of a warrant may notify us in writing in the event it elects to be subject to a requirement that such holder will not have the right to exercise such warrant, to the extent that after giving effect to such exercise, such person (together with such person's affiliates), to the warrant agent's actual knowledge, would beneficially own in excess of 4.9% or 9.8% (or such other amount as a holder may specify) of the shares of common stock outstanding immediately after giving effect to such exercise.

If the number of outstanding shares of common stock is increased by a stock dividend payable in shares of common stock, or by a split-up of shares of common stock or other similar event, then, on the effective date of such stock dividend, split-up or similar event, the number of shares of common stock issuable on exercise of each warrant will be increased in proportion to such increase in the outstanding shares of common stock. A rights offering to holders of common stock entitling holders to purchase shares of common stock at a price less than the fair market value will be deemed a stock dividend of a number of shares of common stock equal to the product of (i) the number of shares of common stock actually sold in such rights offering (or issuable under any other equity securities sold in such rights offering that are convertible into or exercisable for common stock) and (ii) one (1) minus the quotient of (x) the price per share of common stock paid in such rights offering divided by (y) the fair market value. For these purposes (i) if the rights offering is for securities convertible into or exercisable for common stock, in determining the price payable for common stock, there will be taken into account any consideration received for such rights, as well as any additional amount payable upon exercise or conversion and (ii) fair market value means the volume weighted average price of common stock as reported during the ten (10) trading day period ending on the trading day prior to the first date on which the shares of common stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive such rights.

In addition, if we, at any time while the warrants are outstanding and unexpired, pay a dividend or make a distribution in cash, securities or other assets to the holders of common stock on account of such shares of common stock (or other shares of our capital stock into which the warrants are convertible), other than (a) as described above, (b) certain ordinary cash dividends, or (c) to satisfy the redemption rights of the holders of common stock in connection with a proposed initial business combination, then the warrant exercise price will be decreased, effective immediately after the effective date of such event, by the amount of cash and/or the fair market value of any securities or other assets paid on each share of common stock in respect of such event.

If the number of outstanding shares of our common stock is decreased by a consolidation, combination, reverse stock split or reclassification of shares of common stock or other similar event, then, on the effective date of such consolidation, combination, reverse stock split, reclassification or similar event, the number of shares of common stock issuable on exercise of each warrant will be decreased in proportion to such decrease in outstanding shares of common stock.

Whenever the number of shares of common stock purchasable upon the exercise of the warrants is adjusted, as described above, the warrant exercise price will be adjusted by multiplying the warrant exercise price immediately prior to such adjustment by a fraction (x) the numerator of which will be the number of shares of common stock purchasable upon the exercise of the warrants immediately prior to such adjustment, and (y) the denominator of which will be the number of shares of common stock so purchasable immediately thereafter.

In case of any reclassification or reorganization of the outstanding shares of common stock (other than those described above or that solely affects the par value of such shares of common stock), or in the case of any merger or consolidation of us with or into another corporation (other than a consolidation or merger in which we are the continuing corporation and that does not result in any reclassification or reorganization of our outstanding shares of common stock), or in the case of any sale or conveyance to another corporation or entity of the assets or other property of us as an entirety or substantially as an entirety in connection with which we are dissolved, the holders of the warrants will thereafter have the right to purchase and receive, upon the basis and upon the terms and conditions specified in the warrants and in lieu of the shares of our common stock immediately theretofore purchasable and receivable upon the exercise of the rights represented thereby, the kind and amount of shares of stock or other securities or property (including cash) receivable upon such reclassification, reorganization, merger or consolidation, or upon a dissolution following any such sale or transfer, that the holder of the warrants would have received if such holder had exercised their warrants immediately prior to such event. If less than 70% of the consideration receivable by the holders of common stock in such a transaction is payable in the form of common stock in the successor entity that is listed for trading on a national securities exchange or is quoted in an established over-the-counter market, or is to be so listed for trading or quoted immediately following such event, and if the registered holder of the warrant properly exercises the warrant within thirty days following public disclosure of such transaction, the warrant exercise price will be reduced as specified in the warrant agreement based on the Black-Scholes value (as defined in the warrant agreement) of the warrant. The purpose of such exercise price reduction is to provide additional value to holders of the warrants when an extraordinary transaction occurs during the exercise period of the warrants pursuant to which the holders of the warrants otherwise do not receive the full potential value of the warrants in order to determine and realize the option value component of the warrant. This formula is to compensate the warrant holder for the loss of the option value portion of the warrant due to the requirement that the warrant holder exercise the warrant within 30 days of the event. The Black-Scholes model is an accepted pricing model for estimating fair market value where no quoted market price for an instrument is available.

The warrants were issued in registered form under a warrant agreement between Continental Stock Transfer & Trust Company, as warrant agent, and us. You should review a copy of the warrant agreement for a complete description of the terms and conditions applicable to the warrants. The warrant agreement provides that the terms of the warrants may be amended without the consent of any holder to cure any ambiguity or correct any defective provision, but requires the approval by the holders of at least 50% of the then outstanding public warrants to make any change that adversely affects the interests of the registered holders of public warrants.

The warrants may be exercised upon surrender of the warrant certificate on or prior to the expiration date at the offices of the warrant agent, with the exercise form on the reverse side of the warrant certificate completed and executed as indicated, accompanied by full payment of the exercise price (or on a cashless basis, if applicable), by certified or official bank check payable to us, for the number of warrants being exercised. The warrant holders do not have the rights or privileges of holders of common stock and any voting rights until they exercise their warrants and receive shares of common stock. After the issuance of shares of common stock upon exercise of the warrants, each holder will be entitled to one (1) vote for each share held of record on all matters to be voted on by stockholders.

No fractional shares will be issued upon exercise of the warrants. If, upon exercise of the warrants, a holder would be entitled to receive a fractional interest in a share, we will, upon exercise, round down to the nearest whole number the number of shares of common stock to be issued to the warrant holder.

Listing of Securities

Our common stock and warrants are listed on the The Nasdaq Global Select Market under the symbols “VLDR” and “VLDRW,” respectively.

VELODYNE CONFIDENTIAL INFORMATION

Velodyne LiDAR, Inc.

Amended and Restated Employment Agreement

This Amended and Restated Employment Agreement (the “Agreement”) is made effective as of January 1, 2021 (the “Effective Date”), by and between Anand Gopalan (“Executive”) and Velodyne LiDAR, Inc., a Delaware corporation (the “Company”).

RECITALS

WHEREAS, Executive and the Company previously entered into an employment agreement, effective as of January 1, 2020 (the “Prior Agreement”); and

WHEREAS, this Agreement amends and restates the Prior Agreement on the Effective Date; and

WHEREAS, the Company wishes to continue to retain the services of Executive as the Chief Executive Officer of the Company and Executive wishes to continue to serve as the CEO of the Company and continue his employment on the terms and subject to the conditions set forth in this Agreement.

NOW THEREFORE, in consideration of the foregoing recital and the respective undertakings of the Company and Executive set forth below, the Company and Executive agree as follows:

1. Duties and Scope of Employment.

(a) Positions and Duties. As of the Effective Date, Executive will serve as the Company’s Chief Executive Officer. Executive will render such business and professional services in the performance of Executive’s authority, duties and responsibilities consistent with Executive’s position as a Chief Executive Officer of a similarly sized company in the technology industry. Executive will report to the Company’s Board of Directors (the “Board”). The period of Executive’s employment under this Agreement is referred to herein as the “Employment Term.” For purposes of clarity, the occurrence of vesting milestone events (e.g., a Sale Event), shall remain subject to any applicable approval of the Board or the Company’s stockholders, as required under any applicable law or the Company’s governing documents and the existence or absence of any such approval shall not constitute a reduction or change in Executive’s authority, duties or responsibilities.

(b) Board Membership. In addition, for so long as the Company requires during the Employment Term, Executive shall also serve as an employee-director of the Board, and with respect to such position during the Employment Term, Executive shall not be eligible to receive fees, further equity grants or other compensation paid to the Company’s non-employee

directors for his service on the Board during the Employment Term; provided that Executive's service as a member of the Board will be subject to any requirements set forth in the Company's governing documents and the requirements of any applicable securities exchange. Upon the termination of Executive's employment for any reason, unless otherwise requested by the Board, Executive will be deemed to have resigned from the Board (and all other positions held at the Company and any of its Affiliates) voluntarily, without any further required action by Executive, as of the end of Executive's employment and Executive, at the Board's request, will execute an effective resignation in a form reasonably acceptable to the Company.

(c) Obligations. During the Employment Term, Executive will perform his duties faithfully and to the best of his ability and will devote his full business efforts and time to the Company. For the duration of the Employment Term, Executive agrees not to actively engage in any other employment, occupation or consulting activity without the prior approval of the Board. Notwithstanding the foregoing, Executive will be permitted to: continue serving as a trustee to the Foundation for the Preservation of Knowledge and/or its sister organization Tara Prakashana; engage in religious, charitable or other community activities; or serve as a trustee to any family trust or managing any of Executive's personal or family investments and affairs; provided, however, that (1) without the prior approval of the Board, Executive may not serve on more than two boards of directors of (whether the service is on behalf of non-profit or for-profit entities) at any time and Executive will be required to resign as a member of the board of directors of any such outside non-profit or for-profit entity at the request of the Board if the Board determines in its discretion that such service is materially interfering with the performance of his duties hereunder, and (2) the services and activities set out in clauses (i), (ii), and (iii) do not and will not materially interfere with the Executive's performance of his duties as provided in this Agreement and such services and activities would not reasonably be expected to materially and adversely affect the business or reputation of the Company. Executive further agrees to comply with all Company policies in existence or that may be adopted by the Company during the Employment Term.

2. At-Will Employment. Notwithstanding anything to the contrary herein, the parties agree that Executive's employment with the Company remains "at-will" employment and may be terminated at any time with or without cause or notice. Executive understands and agrees that neither his job performance nor promotions, commendations, bonuses or the like from the Company give rise to or in any way serve as the basis for modification, amendment, or extension, by implication or otherwise, of his employment with the Company. However, as described in this Agreement, Executive may be entitled to severance benefits depending on the circumstances of Executive's termination of employment with the Company.

3. Term of Agreement. This Agreement shall be effective and supersede the Prior Agreement as of the Effective Date and will have an initial term of two (2) years commencing on the Effective Date (the "Initial Term"). On the second anniversary of the Effective Date and each annual anniversary thereafter, this Agreement will renew automatically for additional one (1) year terms (each an "Additional Term"), unless either party provides the other party with written notice of non-renewal at least sixty (60) days prior to the date of automatic renewal. Notwithstanding the foregoing provisions of this paragraph, if an initial occurrence of an act or

omission by the Company constituting the grounds for “Good Reason” in accordance with Section 11(h) hereof has occurred (the “Initial Grounds”), and the expiration date of the Company cure period (as such term is used in Section 11(h)) with respect to such Initial Grounds could occur following the expiration of the Initial Term or an Additional Term, the term of this Agreement will extend automatically through the date that is thirty (30) days following the expiration of such cure period, but such extension of the term will only apply with respect to the Initial Grounds.

4. Compensation.

(a) Base Salary. During the Employment Term, the Company will pay Executive an annual salary of \$570,000 as compensation for his services, with increases, if any, as may be approved by the Board or the Compensation Committee of the Board (the “Compensation Committee”) (the base salary, as in effect, from time to time, shall hereinafter be referred to as the “Base Salary”). The Base Salary will be paid periodically in accordance with the Company’s normal payroll practices and be subject to the usual, required withholding. Executive’s Base Salary will be subject to review at least annually and shall be subject to increases, if any, as may be approved from time to time by the Board or the Compensation Committee.

(b) Target Bonus. Executive will have an annual target bonus of 100% of Executive’s Base Salary (the “Target Bonus”), which will be based upon the achievement of performance objectives to be determined by the Board or the Compensation Committee, in its sole discretion, after consultation with Executive. The annual bonus for any year (including the first year of this Agreement) to be paid to Executive, if any, will be payable consistent with the Company’s past practices and policies, but will be paid no later than the fifteenth (15th) day of the third (3rd) month following the end of the Company’s fiscal year to which the bonus relates, so long as Executive was employed by the Company on the last day of such fiscal year. Such performance objectives for the annual bonus for any particular years shall contain criteria applicable to the performance of the Company, which may include reasonable financial, product development and other metrics, as determined by the Board or the Compensation Committee, in its sole discretion, after consultation with Executive.

(c) Equity.

(i) General. Within thirty (30) days following the Effective Date, the Company will grant Executive two awards of restricted stock units. The first award will be for 182,815 time-vesting restricted stock units (the “Time-Vested RSUs”), and the second award will be at target-level achievement for 45,705 performance-vesting restricted stock units (the “PSUs”). Neither the granting of the Time-Vested RSUs, the PSUs nor any other Equity Award shall confer Executive with any right to continued employment.

(ii) Time-Vested RSUs. The Time-Vested RSUs will be subject to the terms and conditions of the Company’s 2020 Equity Incentive Plan (the “Plan”) and a notice of restricted stock unit grant and restricted stock unit agreement (collectively, the “Time-Vested RSU Agreement”). As will be more fully described in the Time-Vested RSU Agreement,

Executive will vest in 25% of the total shares underlying the Time-Vested RSUs if the recipient remains in continuous Service, as defined in the Plan, through December 31, 2021, and (ii) 1/12th of the Time-Vested RSUs shall vest on each of the next twelve successive Quarterly Installment Dates after December 31, 2021 if the recipient remains in continuous Service on each such Quarterly Installment Date. In addition, the Time-Vested RSUs may become vested on an accelerated basis, as provided in the Time-Vested RSU Agreement.

(iii) PSUs. The PSUs will be subject to the terms and conditions of the Plan and a notice of restricted stock unit award and restricted stock unit agreement (collectively, the “PSU Award Agreement”), as the Board determines in consultation with Executive. As will be more fully described in the PSU Award Agreement and the continuous Service requirements described in the following sentence, the vesting of the PSUs will be subject to satisfaction of certain performance criteria that the Board and Executive will determine prior to the PSU grant date. Executive will satisfy the time-based vesting requirements applicable to the PSUs as follows: (A) 25% of the target number of PSUs (for the sake of clarity, 11,425 PSUs) shall commence vesting on January 1, 2021 with 1/12th of these PSUs vesting based upon Executive’s continuous Service on each of the next twelve successive Quarterly Installment Dates following January 1, 2021; and (B) of the remaining 75% of the target number of PSUs (for the sake of clarity, 34,280 PSUs) shall begin vesting on January 1, 2022 with respect to the number of PSUs earned as a result of performance criteria achievement with 1/8th of such earned PSUs vesting based upon Executive’s continuous Service on each of the next eight successive Quarterly Installment Dates following January 1, 2022.

(iv) Performance RSUs. On May 29, 2020, the Company granted to Executive performance RSUs (the “Performance RSUs”), which is subject to the terms and conditions of the Company’s 2016 Stock Plan and the notice of restricted stock unit award and restricted stock unit agreement; provided, however, the definition of Starting Price shall be \$9.89.

(v) Accelerated Vesting.

A. In Connection with a Sale Event.

(a) Time-Vesting Equity Awards. For any time-based vesting Equity Awards, including the Time-Vested RSUs and any time-based vesting condition of a performance-based equity award (collectively, the “Time-Vesting Equity Awards”), if Executive’s continuous service is terminated within one (1) month prior to or within twelve (12) months after a Sale Event either: (1) by the Company (or successor entity) without Cause, or (2) by Executive for Good Reason and any of the Time-Vesting Equity Awards are outstanding at such time, then 100% of such then-outstanding Time-Vesting Equity Awards shall immediately become vested prior to the later of such Sale Event or termination of Executive’s continuous service. Notwithstanding the foregoing, if the Company is subject to a Sale Event while Executive remains in continuous Service and any of the then-outstanding Time-Vesting Equity Awards are not assumed by the acquirer or its parent, continued by the surviving company, or substituted for an

equivalent award or cash payment, then 100% of such then-outstanding Time-Vesting Equity Awards shall become vested immediately prior to the Sale Event.

(b) Performance RSUs. For the Performance RSUs, if Executive's continuous service is terminated within one (1) month prior to or within twelve (12) months after a Sale Event, either: (1) by the Company (or successor entity) without Cause, or (2) by Executive for Good Reason **and** the Performance RSUs are still outstanding at such time, then the number of Performance RSUs that would have become vested pursuant to their terms specified in the applicable award agreement (specifically, with the Ending Price equal to the per share purchase price applied to the Company in the Sale Event, which shall be determined prior to any contingencies, purchase price adjustments, escrows and/or similar holdbacks), shall become vested on the later of such Sale Event or termination of Executive's continuous service. In addition, if the Company is subject to a Sale Event while Executive remains in continuous service and any of the then-outstanding Performance RSUs are not assumed by the acquirer or its parent, continued by the surviving company, or substituted for an equivalent award or cash payment, then the number of Performance RSUs that would have become vested pursuant to the terms specified in the applicable award agreement (specifically, with the Ending Price equal to the per share purchase price applied to the Company in the Sale Event, which shall be determined prior to any contingencies, purchase price adjustments, escrows and/or similar holdbacks), shall become vested immediately prior to the Sale Event.

(c) PSUs. For the PSUs, if Executive's continuous service is terminated within one (1) month prior to or within twelve (12) months after a Sale Event, either: (1) by the Company (or successor entity) without Cause, or (2) by Executive for Good Reason and the PSUs are still outstanding at such time, then the number of PSUs that would have become vested shall be determined as if the consummation of such Sale Event or termination date (whichever is later) is the last day of the applicable performance period that is set forth in the PSU Award Agreement, which shall be determined prior to any contingencies, purchase price adjustments, escrows and/or similar holdbacks, and such PSUs shall become vested on the later of such Sale Event or termination of Executive's continuous service. In addition, if the Company is subject to a Sale Event while Executive remains in continuous service and any of the then-outstanding PSUs are not assumed by the acquirer or its parent, continued by the surviving company, or substituted for an equivalent award or cash payment, then such PSUs shall vest immediately prior to the Sale Event calculated as though the performance goals were met at target.

B. Employment Termination under Specified Circumstances. Notwithstanding anything to the contrary in Section 4(c)(v)A above and excepting a circumstance in which the Company terminates Executive's employment for Cause, if:

(a) Executive's employment is involuntarily terminated without Cause or Executive terminates his employment for Transition Period Good Reason during the Transition Period,

(b) Executive's employment is involuntarily terminated without Cause or Executive terminates his employment for Good Reason after the end of the Window Period; or

(c) Executive's employment terminates for any reason during the Window Period,

then (1) all of the Time-Vesting Equity Awards granted prior to the Effective Date shall vest in full, (2) the Performance RSUs shall vest as though the termination date is a concurrent Sale Event and termination without Cause, (3) any Time-Vesting Equity Awards granted after the Effective Date shall vest pro-rata (on a daily basis as if all time-based vesting had applied on such basis) from the vesting commencement date of such award to the date of termination and (4) any PSUs granted after the Effective Date that are no longer subject to performance criteria shall vest pro-rata (on a daily basis as if all time-based vesting had applied on such basis).

C. Release Requirement. Notwithstanding anything to the contrary herein, Executive's right to any accelerated vesting or any other benefit described in this Section 4(c)(v), shall be subject to Executive's execution and non-revocation of the Release described in Section 9(a), and if Executive fails to return the Release by the Release Deadline, as describe in Section 9(a), or if Executive effectively revokes the Release, then Executive shall not be entitled to such accelerated vesting or any other benefit described in this Section 4(c)(v).

(vi) Additional Equity-Based Awards. Executive may be eligible to receive additional equity-based awards (which, if granted to Executive, will constitute Equity Awards) pursuant to any plans or arrangements the Company may have in effect from time to time. The Board or the Compensation Committee will review Executive's equity grants annually (which, from time to time, will include a comparison to market) and determine in its good faith discretion whether Executive will be granted any such additional equity-based awards and the terms of any such additional equity-based awards in accordance with the terms of any applicable plan or arrangement that may be in effect from time to time.

5. Employee Benefits. During the Employment Term, Executive will be entitled to participate in executive benefit plans and programs of the Company, if any, on the same terms and conditions as other senior executives of the Company to the extent that Executive's position, tenure, salary, age, health and other qualifications make Executive eligible to participate in such plans or programs, subject to the rules and regulations applicable thereto. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

6. Vacation. During the Employment Term, Executive shall continue to participate in the Company's vacation and/or paid time-off program in accordance with its terms; provided, that the Company reserves the right to cancel or change such program at any time.

7. Expenses. The Company will reimburse Executive for reasonable travel, entertainment or other expenses incurred by Executive in the furtherance of or in connection with the performance of Executive's duties hereunder, in accordance with the Company's expense reimbursement policy as in effect from time to time.

8. Severance Benefits - Cash and COBRA Premium Subsidy.

(a) If (1) during the Transition Period or on or after January 1, 2022 the Company terminates Executive's employment with the Company without Cause or Executive resigns from such employment for Good Reason, or (2) during the Window Period Executive's employment terminates for any reason other than the Company terminating Executive's employment for Cause, then, subject to Section 9, Executive will receive the following severance benefits:

(i) Cash Severance. Executive will receive an amount equal to the sum of (A) Executive's then-current Base Salary for twelve (12) months and (B) Executive's Target Bonus (the "Cash Severance"), which will be paid to the extent permissible under the requirements of Code Section 409A in a lump sum in accordance with the schedule set forth in Section 9(b) (and to the extent not so permissible inasmuch as the payments could be subject to additional tax under Section 409A then it will be paid on the Company's normal payroll schedule) and be subject to the usual, required withholding.

(ii) Continued Employee Benefits. If Executive elects continuation coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA") within the time period prescribed pursuant to COBRA for Executive and Executive's eligible dependents, the Company will reimburse Executive for the premiums necessary to continue group health insurance benefits for Executive and Executive's eligible dependents until the earlier of (A) a period of twelve (12) months from the date of Executive's termination of employment, (B) the date upon which Executive and/or Executive's eligible dependents becomes covered under similar plans or (C) the date upon which Executive ceases to be eligible for coverage under COBRA (such reimbursements, the "COBRA Premiums"). However, if the Company determines in its sole discretion that it cannot pay the COBRA Premiums without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company will in lieu thereof provide to Executive a taxable monthly payment payable on the last day of a given month (except as provided by the following sentence), in an amount equal to the monthly COBRA premium that Executive would be required to pay to continue Executive's group health coverage in effect on the date of Executive's termination of employment (which amount will be based on the premium for the first month of COBRA coverage), which payments will be made regardless of whether Executive elects COBRA continuation coverage and will end on the earlier of (x) the date upon which Executive obtains other employment or (y) the date the Company has paid an amount equal to twelve (12) payments. Any such taxable monthly payment will be paid in accordance with the

schedule set forth in Section 9(b). For the avoidance of doubt, the taxable payments in lieu of COBRA Premiums may be used for any purpose, including, but not limited to continuation coverage under COBRA, and will be subject to all applicable tax withholdings. Notwithstanding anything to the contrary under this Agreement, if at any time the Company determines in its sole discretion that it cannot provide the payments contemplated by the preceding sentence without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), Executive will not receive such payment or any further reimbursements for COBRA premiums.

(b) Voluntary Resignation during the Transition Period; Termination for Cause. If Executive's employment with the Company terminates (i) voluntarily by Executive during the Transition Period without Transition Period Good Reason or after the Window Period without Good Reason, or (ii) for Cause by the Company at any time, then Executive will not be entitled to receive severance or other benefits, except for those (if any) as may then be established under the Company's then existing severance and benefits plans and practices or pursuant to other written agreements with the Company.

(c) Disability; Death. If the Company terminates Executive's employment as a result of Executive's Disability, or Executive's employment terminates due to Executive's death, then Executive will not be entitled to receive severance or other benefits except for those (if any) as may then be established under the Company's then existing written severance and benefits plans and practices or pursuant to other written agreements with the Company.

(d) Accrued Compensation. For the avoidance of any doubt, in the event of a termination of Executive's employment with the Company, Executive will be entitled to receive all expense reimbursements, wages, and other benefits due to Executive under any Company-provided plans, policies, and arrangements.

(e) Exclusive Remedy. In the event of any termination of Executive's employment with the Company, the provisions of this Section 8 are intended to be and are exclusive and in lieu of any other rights or remedies to which Executive or the Company may otherwise be entitled, whether at law, tort or contract, in equity. Executive will be entitled to no benefits, compensation or other payments or rights upon termination of employment other than those benefits expressly set forth in this Section 8.

9. Conditions to Receipt of Severance/Timing of Severance.

(a) Separation Agreement and Release of Claims. The receipt of any severance pursuant to Sections 8(a) will be subject to (i) Executive resigning from all positions Executive holds as an officer or director of the Company and any of its Affiliates and executing all documents the Company determines, in its sole discretion, are necessary to effectuate such resignations prior to the Release Deadline (as defined below) (such resignation and execution of applicable documents, the "Resignations"), and (ii) Executive signing and not revoking a separation agreement and release of claims, substantially in the form attached hereto as Exhibit A (the "Release"), which will be provided to Executive by the Company within five (5) days following the termination of Executive's employment, and provided that such Release becomes

effective and irrevocable no later than sixty (60) days following the termination date (such deadline, the “Release Deadline”). If the Resignations and the Release do not become effective and irrevocable by the Release Deadline, Executive will forfeit any rights to severance or benefits under this Agreement. In no event will severance payments or benefits be paid or provided until the Resignations and the Release become effective and irrevocable.

(b) Timing of Severance Payments. Provided that the Resignations and the Release becomes effective and irrevocable by the Release Deadline, any severance payments or benefits under this Agreement will be paid on, or, in the case of installments, will not commence until, the sixtieth (60th) day following Executive’s separation from service, or, if later, such time as required by Section 9(c)(ii). Except as required by Section 9(c)(ii), any installment payments that would have been made to Executive during the sixty (60) day period immediately following Executive’s separation from service but for the preceding sentence will be paid to Executive on the sixtieth (60th) day following Executive’s separation from service and the remaining payments will be made as provided in this Agreement. In no event will Executive have discretion to determine the taxable year of payment for any Deferred Payments.

(c) Section 409A.

(i) Notwithstanding anything to the contrary in this Agreement, no Deferred Payments will be paid or otherwise provided until Executive has a “separation from service” within the meaning of Section 409A. Similarly, no severance payable to Executive, if any, pursuant to this Agreement that otherwise would be exempt from Section 409A pursuant to Treasury Regulation Section 1.409A-1(b)(9) will be payable until Executive has a “separation from service” within the meaning of Section 409A.

(ii) Notwithstanding anything to the contrary in this Agreement, if Executive is a “specified employee” within the meaning of Section 409A at the time of Executive’s separation from service (other than due to death), then the Deferred Payments, if any, that are payable within the first six (6) months following Executive’s separation from service, will become payable on the first payroll date that occurs on or after the date that is six (6) months and one (1) day following the date of Executive’s separation from service. All subsequent Deferred Payments, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if Executive dies following his separation from service, but prior to the six (6) month anniversary of the separation from service, then any payments delayed in accordance with this Section 9(c)(ii) will be payable in a lump sum as soon as administratively practicable after the date of Executive’s death and all other Deferred Payments will be payable in accordance with the payment schedule applicable to each payment or benefit. Each payment, installment and benefit payable under this Agreement is intended to constitute a separate payment for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations.

(iii) Any amount paid under this Agreement that satisfies the requirements of the “short-term deferral” rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations will not constitute Deferred Payments. Any amount paid under this Agreement that qualifies as a payment made as a result of an involuntary separation from service pursuant to

Section 1.409A-1(b)(9)(iii) of the Treasury Regulations that does not exceed the Section 409A Limit (as defined below) will not constitute Deferred Payments.

(iv) The foregoing provisions and all compensation and benefits provided for under this Agreement are intended to comply with or be exempt from the requirements of Section 409A so that none of the severance payments and benefits to be provided hereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities or ambiguous terms herein will be interpreted to be exempt or so comply. The Company and Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment to Executive under Section 409A. In no event will the Company reimburse Executive for any taxes that may be imposed on Executive as a result of Section 409A.

(d) Other Requirements. Executive's receipt of any payments or benefits under Section 4(c)(v)(B) and Section 8 will be subject to Executive continuing to comply with the terms of the Inventions Agreement and the provisions of this Agreement.

(e) No Duty to Mitigate. Executive will not be required to mitigate the amount of any payment contemplated by this Agreement, nor will any earnings that Executive may receive from any other source reduce any such payment

10. Limitation on Payments. In the event that the severance and other benefits provided for in this Agreement or otherwise payable to Executive (i) constitute "parachute payments" within the meaning of Section 280G of the Internal Revenue Code of 1986, as amended (the "Code") and (ii) but for this Section 10, would be subject to the excise tax imposed by Section 4999 of the Code, then Executive's severance benefits under Section 8 will be either:

(a) delivered in full, or

(b) delivered as to such lesser extent which would result in no portion of such severance benefits being subject to excise tax under Section 4999 of the Code, whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999 of the Code, results in the receipt by Executive on an after-tax basis, of the greatest amount of severance benefits, notwithstanding that all or some portion of such severance benefits may be taxable under Section 4999 of the Code. If a reduction in severance and other benefits constituting "parachute payments" is necessary so that benefits are delivered to a lesser extent, reduction will occur in the following order: (i) reduction of cash payments, which will occur in reverse chronological order such that the cash payment owed on the latest date following the occurrence of the event triggering such excise tax will be the first cash payment to be reduced; (ii) reduction of acceleration of vesting of Equity Awards, which will occur in the reverse order of the date of grant for such Equity Awards (i.e., the vesting of the most recently granted Equity Awards will be reduced first); and (iii) reduction of other benefits paid or provided to Executive, which will occur in reverse chronological order such that the benefit owed on the latest date following the occurrence of the event triggering such excise tax will be the first benefit to be reduced. If more than one Equity Award was made to Executive

on the same date of grant, all such awards will have their acceleration of vesting reduced pro rata. In no event will Executive have any discretion with respect to the ordering of payment reductions.

Unless the Company and Executive otherwise agree in writing, any determination required under this Section 10 will be made in writing by a nationally recognized firm of independent public accountants selected by the Company (the “Accountants”), whose determination will be conclusive and binding upon Executive and the Company for all purposes. For purposes of making the calculations required by this Section 10, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Executive will furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section. The Company will bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section 10.

11. Definition of Terms. The following terms referred to in this Agreement will have the following meanings:

(a) Affiliate. “Affiliate” means any parent or subsidiary corporation of the Company, as such terms are defined in Section 424(e) and (1) of the Code.

(b) Cause. “Cause” shall mean (i) Executive’s unauthorized use or disclosure of the Company’s confidential information or trade secrets; (ii) a continuing material breach by Executive of any agreement between Executive and the Company, which breach results in or is reasonably likely to result in adverse consequences to the Company and continues for more than twenty (20) calendar days after receiving specific written notification of such breach from the Board; (iii) a continuing material failure by Executive to comply with the Company’s written policies or rules, which material failure continues for more than twenty (20) calendar days after receiving specific written notification of such failure from the Board; (iv) Executive’s conviction of, or plea of “guilty” or “no contest” to, a felony under the laws of the United States or any State thereof; (v) Executive’s continuing gross negligence or willful misconduct, which gross negligence or willful misconduct continues for more than twenty (20) calendar days after receiving specific written notification of such failure from the Board; (vi) Executive’s continuing failure to perform reasonable and lawful assigned duties, which failure continues for more than twenty (20) calendar days after receiving specific written notification of such failure from the Board; provided that any such failure shall not constitute Cause if it is on account of any illness or disability resulting in Executive being on a short-term or long-term leave under any of the Company’s applicable disability plans; or (vii) Executive’s continuing failure to cooperate in good faith with a governmental or internal investigation of the Company or its directors, officers or employees, if the Company has requested Executive’s cooperation, which failure continues for more than ten (10) calendar days after receiving specific written notification of such failure from the Board.

(c) Change in Composition.” A “Change in Composition” means the occurrence of, and shall refer to the date on which, any member of the Board as constituted as of

the Effective Date is replaced during the Transition Period by directors whose appointment or nomination is not approved by a majority of the members of the Board before such person is elected to the Board.

(d) Code. “Code” means the Internal Revenue Code of 1986, as amended.

(e) Deferred Payment. “Deferred Payment” means any severance pay or benefits to be paid or provided to Executive (or Executive’s estate or beneficiaries) pursuant to this Agreement and any other severance payments or separation benefits, that in each case, when considered together, are considered deferred compensation under Section 409A.

(f) Disability. “Disability” means that Executive is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months.

(g) Equity Awards. “Equity Awards” means Executive’s outstanding stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares, performance stock units and any other Company equity compensation awards.

(h) Good Reason. “Good Reason” means Executive’s termination of employment following the occurrence of one or more of the following, without Executive’s consent: (i) a material reduction in Executive’s Base Salary or the amount of Executive’s Target Bonus opportunity, but not including a substantially similar and proportionate reduction that applies to all officers of the Company; (ii) a material reduction in Executive’s authority, duties or responsibilities; provided, that a reduction in Executive’s authorities, duties or responsibilities solely by virtue of the Company being acquired and made part of a larger entity, whether as a subsidiary, business unit or otherwise (as, for example, when the Chief Executive Officer of the Company remains the Chief Executive Officer of the Company following a Change of Control where the Company becomes a wholly owned subsidiary of the acquiror, but is not made the Chief Executive Officer of the acquiring corporation) will not, by itself, constitute “Good Reason;” (iii) an adverse relocation of Executive’s principal place of employment to a place greater than 60 miles from Executive’s current principal place of employment; or (iv) the delivery of a notice of non-renewal by the Company to Executive in accordance with Section 3 of this Agreement. Notwithstanding the foregoing, Executive will not be entitled to resign for Good Reason without first providing the Company with written notice of the acts or omissions constituting the grounds for “Good Reason” within ninety (90) days of the initial existence of such acts or omissions after the Effective Date and the Company fails to reasonably cure such grounds within thirty (30) days following the date of such notice. In addition, Executive’s resignation will not qualify as a resignation for “Good Reason” unless: (A) the grounds for “Good Reason” are not reasonably cured within the cure period specified in the preceding sentence; and (B) Executive resigns within ninety (90) days following the end of such cure period. Notwithstanding the foregoing, during the Transition Period and not in connection with a Sale Event, “Good Reason” shall have the same meaning as the aforementioned, except (ii) relating to a material reduction in Executive’s authority, duties or responsibilities shall not apply (the “Transition Period Good Reason”).

(i) Indemnification Agreement. “Indemnification Agreement” means the Indemnification Agreement between the Company and Executive effective as of July 9, 2019.

(j) Inventions Agreement. “Inventions Agreement” means the At-Will Employment, Confidential Information, Invention Assignment and Arbitration Agreement, which Executive executed as of June 27, 2016.

(k) Person. “Person” means any individual, corporation, partnership, joint venture, association, joint stock company, trust, unincorporated organization, limited liability company or any other entity or organization of any kind, including a governmental authority.

(l) Quarterly Installment Date. “Quarterly Installment Date” shall mean each March 31, June 30, September 30 and December 31, as applicable.

(m) Sale Event. “Sale Event” means the consummation of the following transactions in which holders of the Company’s common stock receive cash or marketable securities tradable on an established national or foreign securities exchange: (i) a sale of all or substantially all of the assets of the Company determined on a consolidated basis to an unrelated Person or entity; (ii) a merger, reorganization, or consolidation involving the Company in which the shares of voting stock of the Company outstanding immediately prior to such transaction represent or are converted into or exchanged for securities of the surviving or resulting entity immediately upon completion of such transaction which represent less than 50% of the outstanding voting power of such surviving or resulting entity; or (iii) the acquisition of all or a majority of the outstanding voting stock of the Company in a single transaction or series of related transactions by a Person or group of Persons. For the avoidance of doubt, an initial public offering, any subsequent public offering, another capital raising event, and a merger effected solely to change the Company’s domicile shall not constitute a “Sale Event.” In addition, a transaction shall not constitute a Sale Event unless such transaction also qualifies as an event under Treasury Regulation Section 1.409A-3(i)(5)(v) (change in the ownership of a corporation), Treasury Regulation Section 1.409A-3(i)(5)(vi) (change in the effective control of a corporation), or Treasury Regulation Section 1.409A-3(i)(5)(vii) (change in the ownership of a substantial portion of a corporation’s assets).

(n) Section 409A. “Section 409A” means Section 409A of the Code and any final regulations and guidance thereunder and any applicable state law equivalent, as each may be amended or promulgated from time to time.

(o) Section 409A Limit. “Section 409A Limit” will mean two (2) times the lesser of: (i) Executive’s annualized compensation based upon the annual rate of pay paid to Executive during the Executive’s taxable year preceding the Executive’s taxable year of Executive’s separation from service as determined under Treasury Regulation Section 1.409A-1(b)(9)(iii)(A)(1) and any Internal Revenue Service guidance issued with respect thereto; or (ii) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a)(17) of the Internal Revenue Code for the year in which Executive’s separation from service occurred.

(p) Transition Period. “Transition Period” shall mean the period that begins on the Effective Date and ends on the day immediately preceding the start of the Window Period.

(q) Window Period. “Window Period” shall mean the period that begins on July 1, 2021 and ends on December 31, 2021; *provided however* that if a Change in Composition occurs prior to July 1, 2021, then the Window Period shall instead commence on the later of June 1, 2021 or the date of such Change in Composition.

12. Inventions Agreement; Confidential Information. The Company and Executive agree and acknowledge that the Inventions Agreement will continue to remain in effect on and following the Effective Date.

13. Indemnification Agreement. The Company and Executive agree and acknowledge that the Indemnification Agreement will continue to remain in effect on and following the Effective Date.

14. Assignment. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of Executive upon Executive’s death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, “successor” means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive’s right to compensation or other benefits will be null and void.

15. Notices. All notices, requests, demands and other communications called for hereunder will be in writing and will be deemed given (i) on the date of delivery if delivered personally, (ii) one (1) day after being sent by a well-established commercial overnight service, or (iii) four (4) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

Velodyne LiDAR, Inc.
Attn: General Counsel
5521 Hellyer Ave.
San Jose, CA 95138

If to Executive:

at the last residential address known by the Company.

16. Severability. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

17. Integration. As of the Effective Date of this Agreement, the Indemnification Agreement, the Inventions Agreement and the award agreements with respect to Executive's outstanding Equity Awards, represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous agreements whether written or oral, including, but not limited to, the Prior Agreement. This Agreement may be modified only by agreement of the parties by a written instrument executed by the parties that is designated as an amendment to this Agreement.

18. Waiver of Breach. The waiver of a breach of any term or provision of this Agreement, which must be in writing, will not operate as or be construed to be a waiver of any other previous or subsequent breach of this Agreement.

19. Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

20. Tax Withholding. All payments made pursuant to this Agreement will be subject to withholding of applicable taxes.

21. Governing Law. This Agreement will be governed by the laws of the State of California (with the exception of its conflict of laws provisions).

22. Acknowledgment. Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from his private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of this Agreement, and is knowingly and voluntarily entering into this Agreement.

23. Gender Neutral. Wherever used herein, a pronoun in the masculine gender will be considered as including the feminine gender unless the context clearly indicates otherwise.

24. Counterparts and Electronic Signature. This Agreement may be executed in counterparts, and each counterpart will have the same force and effect as an original and will constitute an effective, binding agreement on the part of each of the undersigned. Electronic signature by either party of this Agreement will be permitted and treated like handwritten signature for all purposes.

[Signature Page Follows]

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by their duly authorized officers, as of the day and year first written above.

COMPANY:

Velodyne LiDAR, Inc.

By: /s/ Mike Vella

Title: General Counsel

EXECUTIVE:

/s/ Anand Gopalan

Anand Gopalan

EXHIBIT A

Form Release of Claims

[DATE]

Mr. Anand Gopalan
[ADDRESS]

Dear Anand:

This letter (the "Agreement") confirms the agreement between you and Velodyne LiDAR, Inc., a Delaware corporation (the "Company") regarding the terms described below.

1. **Termination Date.** Your employment with the Company ended on [DATE] (the "Termination Date").

2. **Effective Date and Revocation.** You have up to [21]/[45] days after you receive this Agreement to review it. You are advised to consult an attorney of your own choosing (at your own expense) before signing this Agreement. Furthermore, you have up to seven days after you sign this Agreement to revoke it. If you wish to revoke this Agreement after signing it, you may do so by delivering a letter of revocation to me. If you do not revoke this Agreement, this Agreement will become effective on the eighth day after the date you sign it (the "Effective Date"). Because of the seven-day revocation period, no part of this Agreement will become effective or enforceable until the Effective Date.

3. **All Earning Paid To You.** You acknowledge that the Company has paid you all of your salary, vacation and all other compensation earned by you through the Termination Date and that, prior to the execution of this Agreement, you were not entitled to receive any additional money from the Company and that the only payments and benefits that you are entitled to receive from the Company in the future are those specified in this Agreement.

4. **Severance Pay.** Upon your continued compliance with the requirements contained herein and the requirements set forth in the employment agreement between you and the Company, effective as of [DATE] (the "Employment Agreement"), the Company will provide you with the following severance payments in accordance with the applicable provisions of Section 8(a) of the Employment Agreement: [DESCRIBE THE APPLICABLE SEVERANCE PAYMENTS AND BENEFITS AT TIME OF SEPARATION HERE].

5. **Equity Rights.** [DESCRIBE OUTSTANDING EQUITY-BASED AWARDS AT TIME OF SEPARATION AND ANY APPLICABLE VESTING RIGHTS].

6. **Release of All Claims.** In consideration for the additional benefits described in Paragraphs 4 and 5 above, to the fullest extent permitted by law, you waive, release and promise never to assert any claims or causes of action under any federal, state, local or foreign law, whether or not now known, against the Company or its respective predecessors, successors or past or present subsidiaries, stockholders, directors, officers, employees, consultants, attorneys, agents, assigns and employee benefit plans ("Released Parties") with

respect to any matter, including (without limitation) your employment with the Company or the termination of that employment, including (without limitation) claims to attorneys' fees or costs, claims of wrongful discharge, constructive discharge, emotional distress, defamation, invasion of privacy, fraud, breach of contract or breach of the covenant of good faith and fair dealing and any claims of discrimination or harassment based on sex, age, race, national origin, disability or any other basis under Title VII of the Civil Rights Act of 1964, the California Fair Employment and Housing Act, the Age Discrimination in Employment Act of 1967, the Americans with Disabilities Act, the Civil Rights Act of 1991, Section 1981 of U.S.C. Title 42, and all other laws and regulations relating to employment. This Agreement shall not apply, however, to claims based on events occurring after your execution of the Agreement or to claims for unemployment insurance benefits, claims for workers' compensation benefits, claims for indemnity pursuant to applicable law, vested compensation and/or benefits, and any rights and claims not subject to waiver by law.

7. **Waiver.** You understand that you may later discover facts in addition to or different from those currently known or believed by you but understand that this Agreement will nonetheless be binding notwithstanding the potential discovery of such facts. You expressly waive and release any and all rights and benefits under Section 1542 of the California Civil Code (or any analogous law of any other state), which reads as follows:

A general release does not extend to claims that the creditor or releasing party does not know or suspect to exist in his or her favor at the time of executing the release and that, if known by him or her, would have materially affected his or her settlement with the debtor or released party.

8. **No Admission/Concerted Activity.** Nothing contained in this Agreement will constitute or be treated as an admission by you or the Company of liability, any wrongdoing or any violation of law by either party. This Agreement shall not be construed or applied in a manner that prohibits discussion or comment regarding working conditions or the terms and conditions of employment, or otherwise interferes with employees' rights under Section 7 of the National Labor Relations Act, including the right to engage in concerted activity. This Agreement does not prohibit you from reporting alleged violations of applicable law to any government agency or entity, however, including, but not limited to, the Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, the Department of Justice, the Department of Labor, and the Securities and Exchange Commission, or making other disclosures that are protected under applicable law, provided that you may not personally recover any financial compensation in connection with such claims.

9. **Other Agreements/No Reliance on Representations.** At all times in the future, you will remain bound by your Proprietary Information & Confidentiality Agreement with the Company, which you signed on [DATE], a copy of which is attached as Exhibit A. Except as expressly provided in this Agreement, this Agreement renders null and void all prior agreements between you and the Company, whether oral or written, and constitutes the entire agreement between you and the Company regarding the subject matter of this Agreement. The

Parties agree and confirm that they have not relied and do not rely upon any representation or statement regarding the subject matter or effect of this Agreement made by any other party to this Agreement or any party's agents, attorneys or representatives. This Agreement may be modified only in a written document signed by you and a duly authorized representative of the Company. Notwithstanding any other provision of this Agreement or the Proprietary Information & Confidentiality Agreement, you may disclose confidential information to (a) governmental entities or an attorney for the sole purpose of reporting or assisting in the investigation of a suspected violation of law, or (b) in a document filed in a lawsuit if the filing is made under seal and protected from public disclosure. Nothing in this Agreement is intended to conflict with 18 U.S.C. 1833(b) or create liability for disclosures of trade secrets that are expressly allowed by 18 U.S.C. 1833(b).

10. **Company Property.** You agree that you will deliver to the Company upon signing this Agreement all Company property and all confidential information, as well as any copies or duplications thereof, in your possession, custody or control. To the extent that information such as passwords or access codes may be necessary to access or use any Company property and such information is known to you, you will provide the Company with such information promptly upon request. To the extent that you may possess any confidential information in electronic form on devices or equipment owned by you (including, but not limited to, personal computers, memory or storage devices, and cell phones), you will provide a written list of all such confidential information within two business days of the date on which your employment terminates, then preserve (and not delete) all confidential information until receiving direction from Company regarding the removal or deletion of such confidential information. You agree to cooperate with Company in removing confidential information from any devices, accounts or equipment owned by you.

11. **Confidentiality of Agreement.** You agree that you will not disclose to others the existence or terms of this Agreement, except that you may disclose such information to your spouse, attorney, or tax adviser if such individuals agree that they will not disclose to others the existence or terms of this Agreement or as otherwise required by law. This confidentiality provision is not intended to and does not prohibit you from disclosing information about unlawful or potentially unlawful acts in the workplace, including but not limited to, sexual harassment.

12. **Counsel.** You acknowledge that you have been advised to, and given the opportunity to, consult with counsel with respect to this Agreement and its terms and have executed and delivered this Agreement freely and voluntarily.

13. **No Disparagement.** You agree that you will not make any negative or disparaging statements (orally or in writing) about the Company or its stockholders, directors, officers, employees, products, services or business practices, except as required by law. The Company agrees that none of its Board members or officers will make any negative or disparaging statement (orally or in writing) about you to any third party, except as required by law.

14. **Successors and Assigns.** Each party represents that it has not transferred to any person or entity any of the rights released or transferred through this Agreement. The Parties agree that this Agreement shall be binding upon the future successors and assignees of Company, if any. The Employee may not delegate or assign any obligations pursuant to this Agreement.

15. **Severability.** If any term of this Agreement is held to be invalid, void or unenforceable, the remainder of this Agreement will remain in full force and effect and will in no way be affected, and the Parties will use their best efforts to find an alternate way to achieve the same result. If a court declares or determines that any of the release provisions set forth in section 6 above are invalid, illegal or unenforceable, however, the Company shall have the option of declaring this Agreement null and void and, in such event, you shall return to it all consideration provided to you pursuant to this Agreement within ten days of the Company's request.

16. **Choice of Law.** This Agreement will be construed and interpreted in accordance with the laws of the State of California (other than their choice-of-law provisions), except that the Agreement shall be interpreted as through drafted jointly by the Parties.

17. **Execution.** This Agreement may be executed in counterparts, each of which will be considered an original, but all of which together will constitute one agreement. Execution of a facsimile copy will have the same force and effect as execution of an original, and a facsimile signature will be deemed an original and valid signature.

[Signature Page Follows]

Please indicate your agreement with the above terms by signing below.

Sincerely,

VELOCITYNE LIDAR, INC.

By: _____

Name:

Title:

I AGREE TO THE TERMS OF THIS AGREEMENT, AND I AM VOLUNTARILY SIGNING THIS RELEASE OF ALL CLAIMS. I ACKNOWLEDGE THAT I HAVE READ AND UNDERSTAND THIS AGREEMENT, AND I UNDERSTAND THAT I CANNOT PURSUE ANY OF THE CLAIMS AND RIGHTS THAT I HAVE WAIVED IN THIS AGREEMENT AT ANY TIME IN THE FUTURE.

Anand Gopalan

Dated: ____

Subsidiaries of the Registrant

<u>Name of Subsidiary</u>	<u>Jurisdiction of Incorporation or Organization</u>
Velodyne Lidar USA, Inc.	Delaware

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Velodyne Lidar, Inc.:

We consent to the incorporation by reference in the registration statement (No. 333-253970 and 333-254019) on Form S-8 of Velodyne Lidar, Inc. of our report dated March 16, 2021, with respect to the consolidated balance sheets of Velodyne Lidar, Inc. as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes, which report appears in the December 31, 2020 annual report on Form 10-K of Velodyne Lidar, Inc.

/s/ KPMG LLP

Santa Clara, California
March 16, 2021

I, Anand Gopalan, certify that:

1. I have reviewed this Annual Report on Form 10-K of Velodyne Lidar, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2021

/s/ Anand Gopalan

Anand Gopalan
Chief Executive Officer and Director
(Principal Executive Officer)

I, Andrew Hamer, certify that:

1. I have reviewed this Annual Report on Form 10-K of Velodyne Lidar, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2021

/s/ Andrew Hamer

Andrew Hamer
Chief Financial Officer
(Principal Financial and Accounting Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of Velodyne Lidar, Inc., a Delaware corporation (the “Company”), on Form 10-K for the fiscal year ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the “Form 10-K”), I, Anand Gopalan, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (i) the Form 10-K fully complies, in all material respects, with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and
- (ii) the information contained in the Form 10-K fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: March 16, 2021

/s/ Anand Gopalan

Anand Gopalan
Chief Executive Officer and Director
(Principal Executive Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of Velodyne Lidar, Inc., a Delaware corporation (the “Company”), on Form 10-K for the fiscal year ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the “Form 10-K”), I, Andrew Hamer, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (i) the Form 10-K fully complies, in all material respects, with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and
- (ii) the information contained in the Form 10-K fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: March 16, 2021

/s/ Andrew Hamer

Andrew Hamer
Chief Financial Officer
(Principal Financial and Accounting Officer)