

## Velodyne Lidar Introduces Next-Generation Velabit™ Sensor

June 14, 2021

### *Velabit Makes 3D Lidar Available for Safety-Critical Applications*

SAN JOSE, Calif.--(BUSINESS WIRE)--Jun. 14, 2021-- [Velodyne Lidar, Inc.](#) (Nasdaq: VLDR, VLDRW) today introduced the next generation of its [Velabit™](#) sensor, which addresses the cost, safety, and design challenges of autonomous solutions while delivering state-of-the-art performance. Equipped with Velodyne's breakthrough proprietary micro-lidar array architecture (MLA), the Velabit delivers on what Velodyne customers asked for - an ultra-wide field of view (FoV) and higher resolution.

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The solid-state Velabit sensor now has a simultaneously achievable maximum horizontal FoV of 90° and maximum vertical FOV of 70°, approximately three times more points per second than the previous model. The next generation Velabit takes all of Velodyne's learnings to offer a configurable and dynamic field of view and delivers a high-resolution zoom capability, all within a compact and lightweight sensor.

"With our next-generation Velabit, Velodyne continues to innovate with a sensor that has small size for sleek, stylish integration while delivering high-quality performance," said Anand Gopalan, CEO, Velodyne Lidar. "Our dedicated engineering team worked to bring our customers' needs to life in under a year, highlighting our commitment to meeting market demands. And our goal is to not only meet market demands but transform lives globally. We believe this sensor will democratize lidar-based safety and autonomy across many different industries."

### **Versatile Performance**

This lightweight and versatile Velabit sensor features a small form factor and low power consumption to maximize battery life and vehicle range. The small size and low

Velodyne Lidar introduced the next generation of its Velabit™ sensor, which addresses the cost, safety, and design challenges of autonomous solutions while delivering state-of-the-art performance. (Photo: Velodyne Lidar)

cost allow the sensor the unique ability to be utilized in multiple industries and for critical safety applications, such as:

- Automotive and new mobility
- Autonomous mobile robots
- Industrial forklift and warehouse
- Infrastructure and smart city
- Sidewalk and last-mile delivery
- UAV mapping and navigation

Engineered to be an optimal automotive-grade lidar solution for Advanced Driver Assistance Systems (ADAS) and autonomous vehicles, Velabit can fill sensing gaps, helping automakers achieve full coverage around a vehicle. The sensor enables robust perception coverage for ADAS features including Blind-Spot Monitoring, Cross-Traffic Detection, and Pedestrian Automatic Emergency Braking (PAEB). Additionally, the wide vertical field of view makes this an ideal technology for near-field sensing and robotics applications.

### **Software + Hardware Integration**

Velabit will be combined with Velodyne's lidar-based perception software, Vella™, to streamline customers' projects and advance a broad spectrum of vehicle safety functions. The software translates Velabit's high-quality point cloud data into valuable perception outputs, including object classification and tracking, obstacle detection, scene segmentation, and object velocity, that can be readily utilized by vehicle systems. When combined with vehicle odometry data, Vella provides time and distance to collision measurements, enabling safer vehicle response.

The sensor can also be combined with other Velodyne lidar technologies, such as the [Velarray H800™](#) for high-speed operation or function as a standalone lidar solution in low-speed applications.

### **Designed for Mass Production**

In combination with MLA, Velodyne's fully automated manufacturing process and global manufacturing partnerships enable cost optimization and high-quality mass production, as early as Q4 2022.

Since its launch, Velabit has received widespread industry acclaim, including being named a winner in the [2020 Best of What's New awards](#) by Popular Science. The sensor also was named the winner of the [2020 Innovation Award](#) by Silicon Valley Robotics.

Key Velodyne customers and other top global innovators in automotive and robotics technology are scheduled to attend Velodyne's upcoming Velabit Demo Days to witness the Velabit in action, and will have an opportunity to reserve future capacity.

### **About Velodyne Lidar**

Velodyne Lidar (Nasdaq: VLDR, VLDRW) ushered in a new era of autonomous technology with the invention of real-time surround view lidar sensors. Velodyne, the global leader in lidar, is known for its broad portfolio of breakthrough lidar technologies. Velodyne's revolutionary sensor and software solutions provide flexibility, quality and performance to meet the needs of a wide range of industries, including autonomous vehicles, advanced driver assistance systems (ADAS), robotics, unmanned aerial vehicles (UAV), smart cities and security. Through continuous innovation, Velodyne strives to transform lives and communities by advancing safer mobility for all. For more information, visit [www.velodynelidar.com](http://www.velodynelidar.com).

### **Forward Looking Statements**

This press release contains "forward looking statements" within the meaning of the "safe harbor" provisions of the United States Private Securities Litigation Reform Act of 1995 including, without limitation, all statements other than historical fact and include, without limitation, statements regarding Velodyne's target markets, new products, development efforts, competition. When used in this press release, the words "estimates," "projected," "expects," "anticipates," "forecasts," "plans," "intends," "believes," "seeks," "may," "will," "can," "should," "future," "propose" and variations of these words or similar expressions (or the negative versions of such words or expressions) are intended to identify forward-looking statements. These forward-looking statements are not guarantees of future performance, conditions or results and involve a number of known and unknown risks, uncertainties, assumptions and other important factors, many of which are outside Velodyne's control, that could cause actual results or outcomes to differ materially from those discussed in the forward-looking statements. Important factors, among others, that may affect actual results or outcomes include uncertainties regarding government regulation and adoption of lidar, the uncertain impact of the COVID-19 pandemic on Velodyne's and its customers' businesses; Velodyne's ability to manage growth; Velodyne's ability to execute its business plan; uncertainties related to the ability of Velodyne's customers to commercialize their products and the ultimate market acceptance of these products; the rate and degree of market acceptance of Velodyne's products; the success of other competing lidar and sensor-related products and services that exist or may become available; uncertainties related to Velodyne's current litigation and potential litigation involving Velodyne or the validity or enforceability of Velodyne's intellectual property; and general economic and market conditions impacting demand for Velodyne's products and services. Velodyne undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

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