Velodyne Lidar Introduces Low-cost Small Lidar Sensor

Velodyne Lidar has introduced Velabit, the company's smallest sensor that brings new levels of versatility and affordability to 3D Lidar perception. The Velabit leverages Velodyne's innovative Lidar technology and manufacturing partnerships for cost optimization and high-volume production. The sensor contributes to Velodyne's mission to make high-quality 3D Lidar sensors readily accessible to everyone.

The Velabit perfectly complements Velodyne's sensor portfolio. The sensor delivers the same technology and performance found on Velodyne's full suite of sensors and is set to be the catalyst for creating endless possibilities for new applications in a variety of industries. The compact Velabit can be embedded almost anywhere within vehicles, robots, unmanned aerial vehicles (UAVs), infrastructure and more. It is designed to be easy to manufacture at mass production levels.

Autonomous Vehicles

The Velabit is engineered to be an optimal automotive-grade Lidar solution for Advanced Driver Assistance Systems (ADAS) and autonomous vehicles. It enables robust perception coverage for Blind-Spot Monitoring, Cross Traffic Detection, Automatic Emergency Braking, and Pedestrian and Bicyclist Safety. Highly configurable for customer application, this mid-range sensor can be combined with other Velodyne Lidar sensors, such as the Velarray, for high-speed operation or function as a standalone Lidar solution in low-speed applications.

Democratizing Lidar

"The Velabit democratizes Lidar with its ultra-small form factor and its sensor pricing targeted at $100 in high-volume production, making 3D Lidar available for all safety-critical applications," said Anand Gopalan, CEO, Velodyne Lidar. "Its combination of performance, size and price position the Velabit to drive a quantum leap in the number of Lidar-powered applications. The sensor delivers what the industry has been seeking: a breakthrough innovation that can jump-start a new era of autonomous solutions on a global scale."

GPS-denied HD Mapping

"Before the Velabit there was no suitable small and lightweight Lidar for small UAVs and unmanned ground vehicles performing obstacle avoidance or mapping," said Alberto Lacaze, president, Robotic Research. "Since Robotic Research's Pegasus Mini is a fully autonomous ground and air vehicle, it requires the Velabit's size and versatility. In addition, the Velabit enables the most advanced GPS-denied HD mapping in the industry. The Velabit fills a much-needed space in the market and is currently in a class of its own."