Outsight and Ouster Accelerate Digital Lidar Adoption in Industrial Automation and Smart City Markets

A partnership that makes it possible for 3D perception technology to be integrated into every industrial automation and smart infrastructure application

PARIS, FRANCE, January 22, 2021 /EINPresswire.com/ -- Outsight, leader in real-time 3D LiDAR perception solutions, and Ouster, a leading provider of high-performance digital lidar sensors, announced today the first integrated solution in the lidar industry with embedded pre-processing software. This plug-and-play system is designed to deliver real-time, processed 3D data and designed to be integrated into any application within minutes. The solution combines Ouster's high-resolution digital lidar sensors with Outsight's perception software which detects, classifies, and tracks objects without relying on machine learning.

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> *Sebastien de la Bastie, Chief Business Officer at Outsight*

Ouster invented digital lidar technology in 2015 with a vision of making high-performance, ubiquitous, and affordable lidar-powered solutions across numerous industries. With a similar goal in mind, Outsight invented pre-processing software to make 3D lidar easier than ever to use. The combination of these two industry-leading products results in an end-to-end solution that delivers robust, usable data to customers while accelerating their time-to-market and decreasing product development costs.

"Ouster and Outsight's strategic partnership represents our shared vision for making 3D lidar-powered solutions that are useful, simple, and affordable for every customer in every industry," said Cyrille Jacquemet, general manager of Europe and the Middle East at Ouster. "We believe Ouster's high-resolution lidar and Outsight's unique pre-processing software will allow

customers to fully leverage 3D lidar data in any application. Together, we are advancing safe, ubiquitous autonomy with this comprehensive solution."

"By teaming up with Ouster, we created the first one-stop-shop for a comprehensive perception solution," said Sebastien de la Bastie, Chief Business Officer at Outsight. "Our integrated kit has the right versatility for R&D experimentation and the right performance, robustness and scalability for large, real-world deployments. Together, we fill the gap between both worlds and dramatically accelerate customer's time-to-market."

All-in-one solution: 3D digital lidar sensors with real-time data processing software

Ouster brings advanced 3D vision to diverse applications where real-time 3D perception, reliability, and 360-degree monitoring are required. Designed to IP68 and IP9K standards, Ouster's sensors are built to withstand extreme weather conditions. This provides a new level of reliability for extended outdoor use through rain, snow, hail, dust, and fog. Ouster's sensors also have over 50 customization options that can be tailored for multiple applications and all physical installations – from a narrow, dense point cloud to an extra-wide 90x360 field-of-view – across factories, ports, cities, airports, and other locations.

Ouster's 3D lidar data is processed in real-time by Outsight's edge compute system, an ARM-based compute node that functions as an integrated lidar box. Customers can receive both the raw, high-resolution point cloud data and the pre-processed data, which ranges from individual object information (position, trajectory, velocity) to aggregated analytics (object counts, flow patterns).

Further, Outsight's proprietary pre-processing approach doesn't require any machine learning – its AI-driven algorithms can accurately detect, track, and classify objects without any kind of training or data labeling. This not only reduces customers' applications power consumption and bandwidth requirements, but also allows customers to be up and running with the solution almost immediately and without any need for long data annotation processes.

This solution is already commercially available in Europe for industrial automation and smart city applications.

A digital lidar solution designed for industrial automation, smart cities, and more

From volume measurement in the industrial sector to safer intersections in smart cities, this integrated solution makes it possible for customers to easily leverage 3D lidar-based technology for both new and existing applications.

Industrial applications include using Ouster's sensors to measure large volumes of waste heaps that are partially located below ground in buried containers. Outsight's software then pre-processes this data in real-time to calculate the volume and dimensions of the heaps. The

unparalleled resolution of an Ouster sensor enables customers to calculate the volume measurements at centimeter-level accuracy, a degree of precision that is not achievable today by traditional 2D methods. Accuracy and simplicity is critical, as this improves customers' benchmarking and reduces operational costs. A video of this application in action can be seen here.

For smart infrastructure customers, this combined technology can deliver object information, including vehicle and pedestrian position, classification, velocity, and predicted trajectory. Integrating this solution directly into intelligent traffic systems unlocks capabilities around automatic wrong-way detection, stop bar violation, pedestrian crossing, among others. Outsight also provides an additional applications layer that can be modified by customers and integrators to ensure that the solution fits their unique needs. A video of this application in action can be seen here.

Looking ahead: bringing 3D lidar-based technology to all industries

Together, Ouster and Outsight are accelerating safe, ubiquitous autonomy with plug-and-play solutions that are useful, reliable, and easy to integrate across all industries. This partnership is a part of an ongoing joint effort to bring 3D perception capabilities to every industrial robot, crane, traffic light, and any other moving and fixed objects. The companies plan to extend the partnership to collaborate on additional solutions in numerous industries, including robotics and industrial vehicles.

About Ouster

Ouster builds high-resolution lidar sensors for the industrial automation, smart infrastructure, robotics, and automotive industries. Using its unique digital lidar architecture, Ouster's sensors are high-resolution, reliable, compact, and affordable. Since its founding in 2015, Ouster has secured over 800 customers and $140 million in funding. Ouster is headquartered in San Francisco and led by CEO Angus Pacala and CTO Mark Frichtl. For more information, visit www.ouster.com, or connect with us on Twitter or LinkedIn.

About Outsight

Outsight develops real-time 3D LiDAR perception solutions. Our mission is to make LiDAR-based spatial intelligence become plug-and-play, so it can be used by developers of applications in any market. Using any LiDAR with our pre-processing capabilities allows smart machines and smart cities to achieve an unprecedented level of understanding of their environment. We believe that accelerating the adoption of LiDAR technology with easy-to-use and scalable

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