

Sevensense Robotics to present Alphasense Autonomy Evaluation Kit at ProMAT 2023

Swiss 3D Visual Autonomy provider introduces off-the-shelf prototyping solution for AMR manufacturers

ZÜRICH, SWITZERLAND, February 16, 2023 /EINPresswire.com/ -- Automation has the potential to exponentially increase efficiency, profitability, and safety in the logistics and manufacturing sectors. So far, the lack of a robust, yet flexible navigation technology has limited the scope and scale of automation in material handling operations.



Alphasense Autonomy Evaluation Kit software and hardware bundle

Furthermore, the AMR manufacturing sector is extremely competitive. Most of its players rely on navigation technologies like 2D LiDAR SLAM or magnetic line following: proven in the field but limited in performance.

To gain a competitive advantage, many AMR manufacturers are looking into new technologies; but often they lack the resources, time, expertise, and talent to develop them.

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Many AMR OEMs saw Alphasense Autonomy as a solution to fuse 3D VSLAM into their vehicles but testing it took more expertise and time than they could invest. The kit gives them a shortcut to the future”

*Gianluca Cesari, CBDO at
Sevensense Robotics*

This industry landscape is now changing with the arrival of the [VSLAM](#) navigation technology developed by Sevensense [Robotics](#).

The Alphasense Autonomy Evaluation Kit accelerates the development and deployment of automated guided vehicles (AGVs) and autonomous mobile robots (AMRs) while improving their performance and expanding their operational capabilities.

“We observed that many AMR manufacturers considered Alphasense Autonomy as an option to incorporate 3D

Visual Autonomy capabilities into their offering but integrating, testing, and validating the fit of

this navigation technology in their own vehicles and their use cases still required more expertise and time than they were able to invest.

The Alphasense Autonomy Evaluation Kit offers them an off-the-shelf option to easily and quickly test Alphasense Autonomy and take a generational technological leap forward”, says Gianluca Cesari, CBDO at Sevensense Robotics.

Alphasense Autonomy

Alphasense Autonomy leverages the 360 degrees view of the vehicle’s surroundings and cutting-edge Visual SLAM technology to offer <0.3 inches (<4 mm) precise and reliable positioning capabilities in all indoor and outdoor environments, even over uneven floors and ramps. Without any need for additional infrastructure.

Moreover, thanks to the use of advanced 3D perception algorithms and, optionally, third-party sensing, the system offers a variety of navigation modes, including virtual path following, obstacle avoidance, and free navigation.

The Alphasense Autonomy Evaluation Kit

The Alphasense Autonomy Evaluation Kit allows mobile robot manufacturers (AGV/AMR OEMs) to test the Alphasense Autonomy 3D Visual Autonomy technology quickly and easily.

The kit is a plug-and-play software and hardware bundle that combines the Alphasense multi-camera sensor with Alphasense Autonomy and Sevensense’s proprietary software stack and configuration tools that dramatically reduce the time required to integrate a fully functioning Visual SLAM navigation system on a vehicle.

The hardware consists of a compact device including 5 factory-calibrated cameras and a computer unit with pre-installed software. The system can be easily mounted on top of any vehicle and requires a minimal amount of connections such as power and ethernet. Optionally, additional 3rd party sensors can also be connected.”

Thanks to a web-based interface, the user is guided through a simple step-by-step installation wizard to calibrate, set up the interfaces, and configure and deploy the target AMR. With this, any technical department can now run and test Alphasense Autonomy on their own vehicles.

The Evaluation Kit enables all Alphasense Autonomy features for trial: from easily teaching an A-to-B motion layout to performing virtual line following with obstacle avoidance. All this, while delivering the same performance as the series Alphasense Autonomy product in terms of robustness and repeatability.

On top of the provided in-depth documentation, the device contains a 4G connectivity module that allows Sevensense to provide immediate support by directly accessing the unit. Together with access to Sevensense’s service desk, this level of support allows customers to confidently perform their technical evaluations in little time.

Visual SLAM navigation is not the future, it is the present

In 2022, during a closed trial, the Alphasense Autonomy Evaluation Kit already helped several AMR manufacturers to reap the benefits of the Sevensense Visual SLAM navigation solution. Now, Sevensense is supporting these early-adopter customers going to market with their new AMRs equipped with Alphasense Autonomy.

In a broader industry context, the DHL Trend Radar indicates that 3D visual autonomy technology is currently maturing, and will exponentially increase its potential within the next 5 years.

Product demos at ProMat 2023

The Sevensense Robotics team will be offering live demos at booth #N8539 from Monday, March 20th to Thursday, March 23rd at ProMAT 2023 show in Chicago IL.

About Sevensense Robotics

Sevensense builds the eyes and brains for mobile robots whose vision and intelligence empower manufacturers of manually operated vehicles to become providers of smart robots and enter the automation revolution of the 21st century.

Sevensense solves complex automation challenges for its clients in the fields of logistics and service robotics. The Sevensense technology radically simplifies and accelerates their development efforts, as it can easily be installed on any kind of ground vehicle, transforming them into smart robots.

Sevensense envisions a world in which repetitive, dangerous, and unhygienic jobs in factories, warehouses, and public spaces will be carried out by robots equipped with their technology.

Sevensense is a spin-off of the Swiss Federal Institute of Technology, ETH Zurich.

The Sevensense technology has been internationally acclaimed: in the 2021 ABB Robotics Innovation Challenge and in the 2022 Swiss Technology Award.

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