LiDAR-LOC

Modular LIDAR localization based on natural contours

SICK
Sensor Intelligence.

LiDAR-LOC

Technical data overview

Product category	Embedded software Extension for LiDAR-LOC 2 – embedded software including runtime environment (depending on type)
Localization resolution	1 mm, position 0.001°, orientation
Repeatability	Typ. < 10 mm, position Typ. < 0.25°, orientation Depending on the sensor combination and environment
Supported products	SIM1000 FX Controller (IPC): x86-64, ARM MLS OLS GLS (depending on type)

Product description

The LiDAR-LOC is a localization solution for all autonomously moving mobile platforms. It uses LiDAR sensor data and links them with information from other sensors as needed. This is how the LiDAR-LOC achieves accurate and reliable localization results based on natural contours – environmental adjustments are not necessary. The LiDAR-LOC 2 also includes code-based localization by default. Thanks to the flexible use of two technologies, LiDAR-LOC 2 covers a wide range of applications.
The LiDAR-LOC is available as a modular software solution and can be supplemented with virtual line navigation. This means the LiDAR-LOC is the optimal starting point for the development of vehicle navigation.

At a glance

- High repeatability: < 10 mm
- Driving speed up to 3 m/s
- Rot. rate max. 90°/ s
- Position output with up to 66 Hz
- Easy-to-operate user interface (web browser) and ROS integration
- Integration options for vehicle odometry and reflector detection

Your benefits

- Scalable localization solution – suitable for the respective application
- High positioning accuracy & repeatability
- Additional sensor signals can be integrated for individual applications
- No changes to the infrastructure with additional artificial landmarks required
- Support of safety and standard LiDAR sensors for a wide range of solution concepts
- Simple integration of new functions thanks to modular structure
- Reliable localization in environments with high dynamics or few contours

Fields of application

- Position determination for all types of mobile platforms, industrial automated guided vehicles (AGVs), service robots and automated guided vehicle systems
- AGVs used in goods-to-person picking processes, large halls, block storage and sorting applications

Ordering information

Other models and accessories → www.sick.com/LiDAR-LOC

Product category	Description	Application	Supported products	Type	Part no.
Embedded software	Software for contour-and code-based position determination of mobile platforms	Localization of AGVs/AGCs/AMRs, AGV systems, and mobile platforms of any kind	SIM1000 FX, Controller (IPC): x86-64, ARM	LiDAR-LOC 2	1122751
Extension for LiDAR-LOC 2 – embedded software including run-time environment	Functionality upgrade of LiDAR localization for simplified navigation functions based on physical and/or virtual tracks and codes	Simplified path planning and control of vehicles, quick and simple adjustment to the route layout, among other things, without time-consuming changes to the physical lanes, bridging of damaged tracks to increase availability	MLS, OLS, GLS	Virtual Line Navigation	1122752

Online data sheet

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

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