

Partners for the testing of mobile robotic applications in industrial environments are sought

- **SCHEDA**
- **APPROFONDIMENTI**

Identificativo proposta: TRDE20200720001

RICHIEDI MAGGIORI INFORMAZIONI

A German SME which is specialised in the development of hard- and software components for mobile robotics applications is looking for industry partners that can provide testing facilities for mobile autonomous transportation robots. Technical cooperation agreements are sought.

The German company's expertise comprises all necessary building blocks such as safety concept, power unit, localisation, navigation, and autonomy of mobile robotic applications. An in-house developed ad-hoc indoor localisation module enables repositioning of robots with an error of less than 1 millimetre which is to the company's knowledge unique in the market. To remain competitive, companies from the automotive, the medical and the logistics sector must automate their production processes in an ever-evolving industrial world. The use of autonomous mobile robots for transportation of materials, goods, and tools is nowadays the most efficient approach to meet the requirements of modern industrial environments. In addition to appropriate safety and sensor concepts, there is also the need for a robust localisation technology to determine the robot's actual position, even in challenging and changing surroundings. A prior defined use case in accordance with the partner shall be implemented in the partner's infrastructure applying the company's in-house developed, patented transportation robots. Based on the obtained information potential application can be evaluated. The design of the transportation robot enables individual solutions concerning footprint, performance, and autonomous features. Tailor-made robots can be provided even in small quantities matching the partner's needs. The robots are scalable to any size starting from a dimension of 400 x 480 to 800 x 1.200 mm. The robots can transport a maximum weight of at least 120 kg. In terms of connectivity, the company is counting on a preferably open interface, planning on implementing interface VDA (German Association of the Automotive Industry) 5050 based on MQTT (Message Queuing Telemetry Transport) protocol which has the objective to provide a standardized interface for autonomous mobile robots. This enables the integration of various autonomous mobile robots (AMRs) into a possibly already existing control station. As some use cases require even more ambitious dimensions, the company's special autonomous carrier enables the autonomous transport of KLT (small load carrier) containers (400 x 600 mm) on transport rollers within the entire value stream (logistics & production) with an unrivalled low height of below 100 mm. An integrated lifting unit ensures the automatic pick-up and drop off of the transport rollers while its high agility (transvers movement) and the positioning accuracy of less than 1 mm allow a drop off of the transport goods directly in process position. The company's robotic platforms are highly adaptable to any use case so that no or only minimal additional costs are required for the integration into an existing production or logistics system. The effort of the partner to adapt their industrial environment e.g. size and weight of goods, infrastructure and are therefore minimized. This pays off as the total cost of ownership (TCO) is lower as the German company provides a modular system that can be adapted in geometry and functions to a wide range of customer needs, yet still consists of equal parts in hardware and software. The company is looking for reliable partners for long-term cooperations in the form of technical cooperation agreements as outlined in the section type and role of partner sought.

Riferimento Esterno: TRDE20200720001

Tipo: Technology Request

Paese: Germany

Presentazione: 24/07/2020

Ultimo aggiornamento: 30/07/2020

Scadenza: 31/07/2021