



Unites all senses:

the new O3R camera and sensor platform



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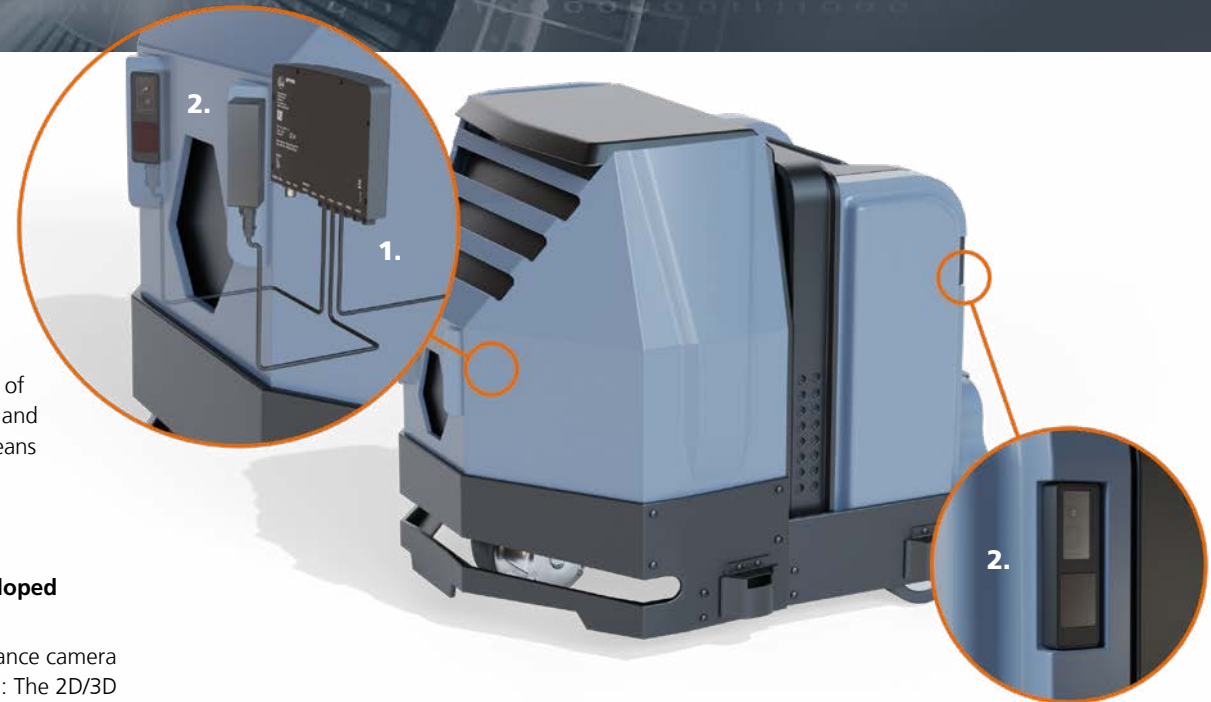
The O3R platform is the comprehensive solution for centralised, synchronised processing of image and sensor information in autonomous mobile robots, such as AGVs. The simplified integration and reliable interaction of cameras and sensors enables the robust implementation of relevant functions such as collision avoidance, navigation and positioning. In addition, analysis and dimensioning of stationary objects can be implemented, and is handled more effectively by means of several cameras. Examples include the measurement of pallets, logs, packages or suitcases.

1. Powerful and open: the central unit for sensory processing

The core of the system is a powerful computing unit called Video Processing Unit (VPU). It is based on Yocto Linux and NVIDIA Jetson TX2 and supports open development environments such as ROS and Docker. Up to six camera heads can be connected to the computing unit. Additional sensors, such as for distance detection, can be connected via a Gigabit Ethernet interface. All relevant "senses" that an AGV needs for safe autonomous navigation are thus available at a central point.

2. Camera head with imager developed in-house

ifm also offers suitable, high-performance camera heads as part of the platform solution: The 2D/3D cameras have an angle of aperture of either 60° or 105° and are equipped with the latest time-of-flight imager from pmdtechnologies ag. This company of the ifm group of companies develops all sensors for the vision products of the automation specialist and adapts them precisely to the respective requirements. Thanks to the modulated infrared light, the 2D/3D camera detects objects with maximum reliability even with increased exposure to ambient light.



With the O3R platform ifm takes the sensory processing of autonomously operating stationary and mobile systems to a new, more intelligent level.

Are you ready for the next step in robotic perception?