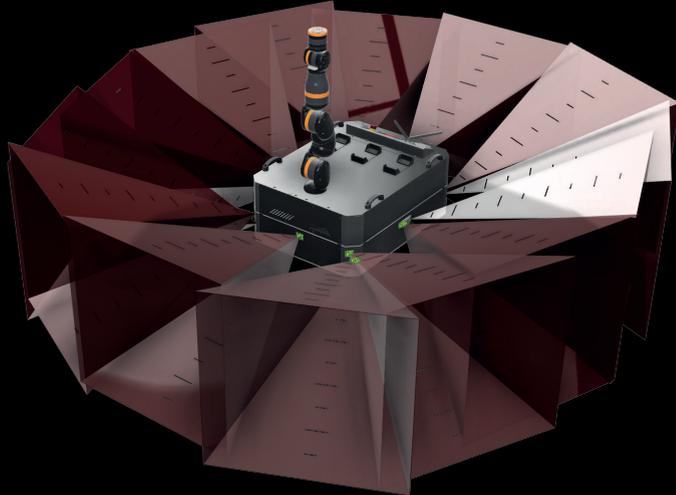


Datasheet

3D ToF sensor ring „Vision360“



The Vision360 3D ToF Sensor offers advanced obstacle detection for enhanced robotic navigation and safety. This modular sensor ring is designed for seamless daisy-chaining, allowing for flexible configurations tailored to the specific shape and dimensions of various robotic platforms.

This adaptability makes it ideal for comprehensive collision avoidance systems, enabling multi-level detection that simultaneously identifies objects like people and forklift tines — objects that traditional sensors often miss because they only scan in two dimensions and fail to detect objects outside the scan plane.

Unlike standard sensors with limited 270° detection, the Vision360 setup with up to 81 sensors delivers full 360° coverage, supporting omnidirectional driving and ensuring safety in all directions.

Key features include underrun protection and fall protection, making it a complete solution for advanced industrial and autonomous applications.

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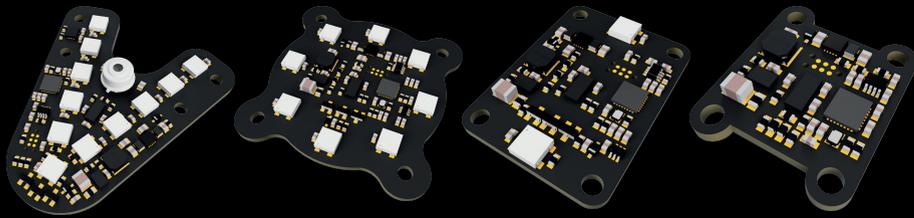
Primary applications

- 3D obstacle detection for autonomous robots
- Full 360° coverage
- Scalable sensor array with up to 81 interconnected sensors
- Customizable coverage, adaptable to various robot shapes and sizes
- Simultaneous multi-level coverage of multiple objects, such as humans and forklift tines, ensuring enhanced operational safety
- Omnidirectional mobility support through complete 360° vision, ideal for dynamic environments
- Underrun protection and fall protection for comprehensive safety in industrial and autonomous applications

Technical Data

Resolution	▪ 3D ToF Sensor, 8x8 pixel per sensor
Size [L x W x H]	▪ As small as 28 mm × 24 mm × 5 mm
Field of View	▪ 45° × 45°
Indoor Range	▪ Up to 4 meters
Measurement Frequency	▪ 15 Hz
Measurement Accuracy	▪ Approximately 5%
Connectivity	▪ CAN FD ▪ Daisy Chain Compatible
Expandability	▪ Master board with Ethernet connectivity, supporting up to 3 chains of 27 sensor boards each (totaling 81 sensors) via Ethernet

Variants



Edu Headlight

Headlight with optional thermal imaging camera

Edu Taillight

Backlight equipped with integrated sensor

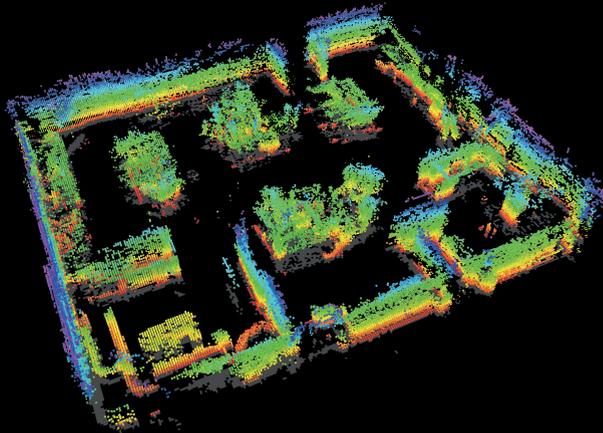
Edu Sidepanel

Compact all-in-one module

Edu Minipanel

Even more compact all-in-one module

The following illustration shows image processing using a ring of 10 Vision360 sensors.



For more information, including configuration options and pricing, please visit our website or contact us directly.

Contact

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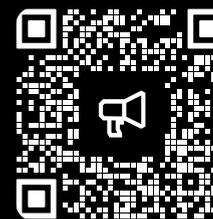
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