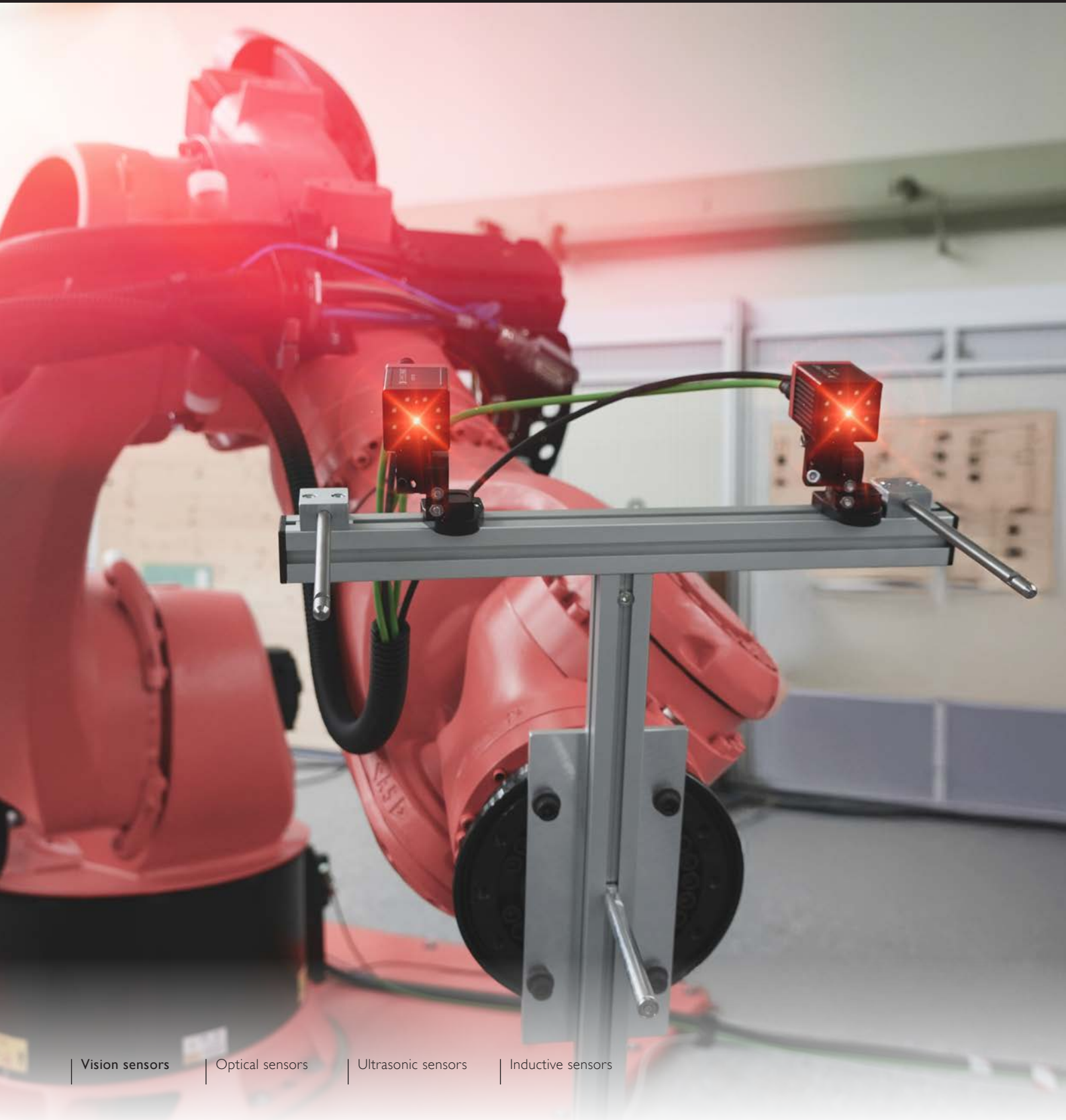


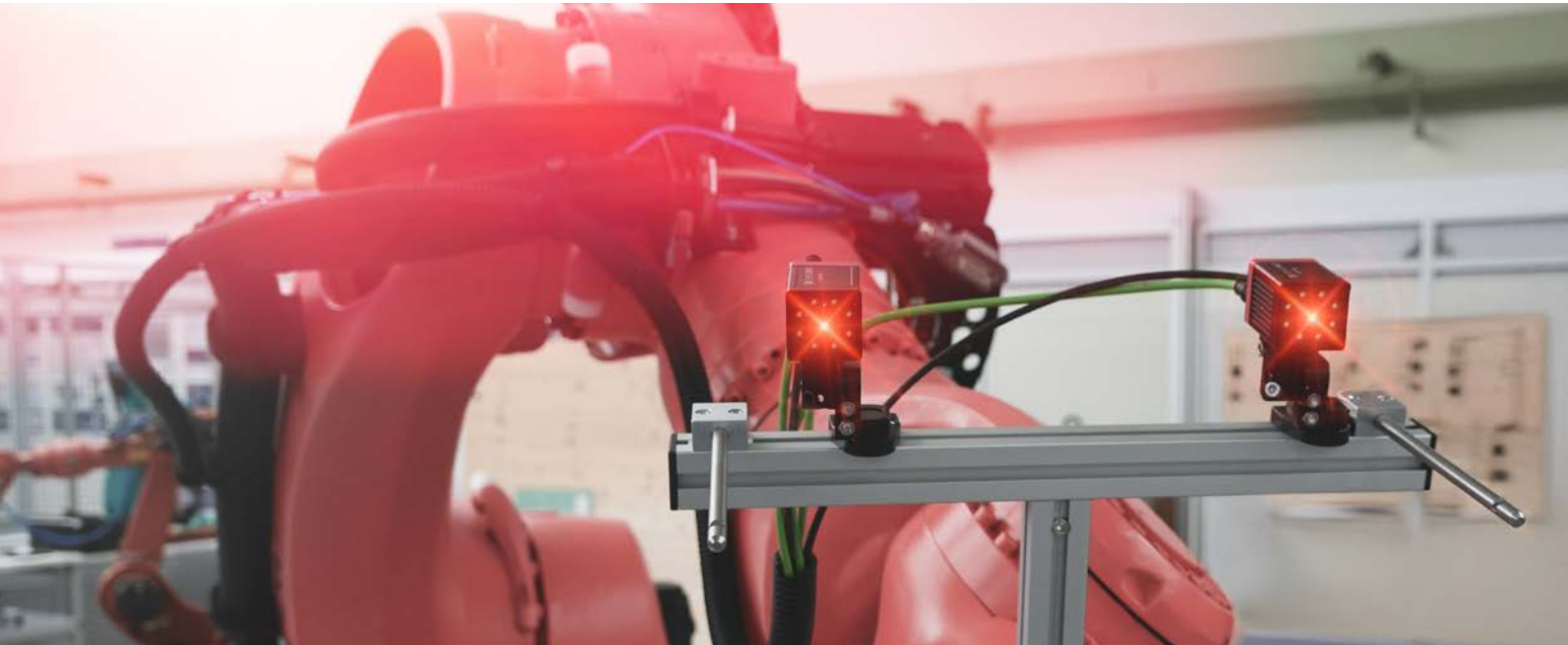
VISOR[®] Robotic

An eye on everything – the vision sensor for robotics applications



VISOR® Robotic

An eye on everything – the vision sensor for robotics applications



The VISOR® Robotic detects the position of the component in a load carrier and transmits the gripping position directly to the robot.



The VISOR® Robotic determines the exact position of the sensor housing. Offset data is used to correct the robot's trajectory.

HIGHLIGHTS: VISOR® ROBOTIC

- Reliable 2D or 3D localization in robot coordinates
- Accurate picking of parts made possible by special functions such as gripper clearance check and gripper offset
- Compact and lightweight housing for mobile or stationary use
- Simplified commissioning enabled by application-specific calibration methods
- Quick restart thanks to fully automatable calibration routines
- TargetMark 3D
- Robot-manufacturer-independent – one vision sensor for all robots
- Simple integration thanks to multiple robot function modules and apps

With the additional LAN connection on the VISOR® XE Robotic, cabling on the robot arm is simplified, reducing cable runs.



The right package for your individual application:

VISOR® Robotic Advanced:

Designed to solve common image-based robotics applications

- Simple calibration methods for robotics applications
- 3D result offset for direct transmission of gripper positions to the robot
- Easy adjustment of the work plane
- Target Mark 3D technology quickly provides 3D object poses
- Quick setup of pick-and-place applications



VISOR® Robotic Professional:

Extended functionality for identification, extended calibration methods and localization in 3D

- Calibration methods tailored to the application
- Can be used for all common 2D codes, common 1D barcodes and OCR
- 3D object recognition
- Fully automatable routines
- Easy recalibration after system shutdown



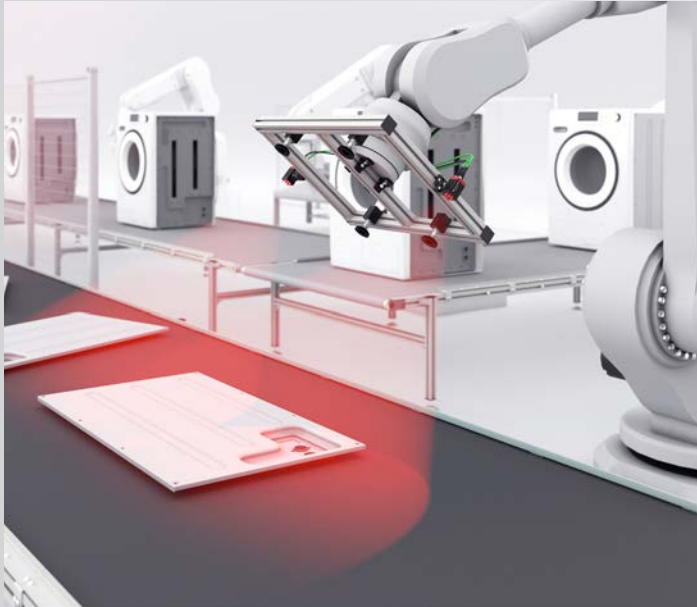
TargetMark 3D:

TargetMark 3D technology quickly delivers 3D object positions

- Mobile and autonomous workspace
- Individual referencing for different stations
- Correction of the robot's working position
- Provides 3D information in the robot coordinate system



Precise robotic handling of large components



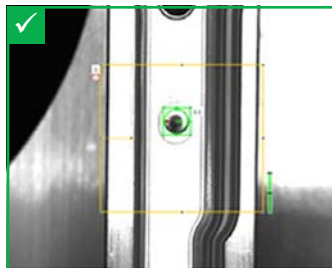
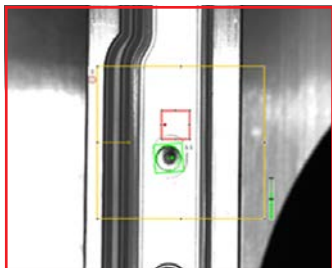
With the VISOR® XE Robotic, the exact position of the large components is determined and transferred to the controller in robot coordinates.

The VISOR® XE series enables fast, cost-effective installation and connection of multiple vision sensors thanks to the additional LAN connector, which reduces cabling and installation time. This solution facilitates the reliable detection of large components and simplifies their integration into existing systems.



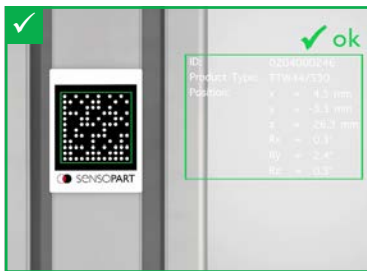
Inserting battery modules into the housing bottom

With the VISOR® Robotic, the exact position of the housing bottom is determined and transferred to the controller in robot coordinates. Its compact and durable design allows easy integration directly into the robot gripper. Using standardized calibration plates, the image coordinates are seamlessly converted into world coordinates.

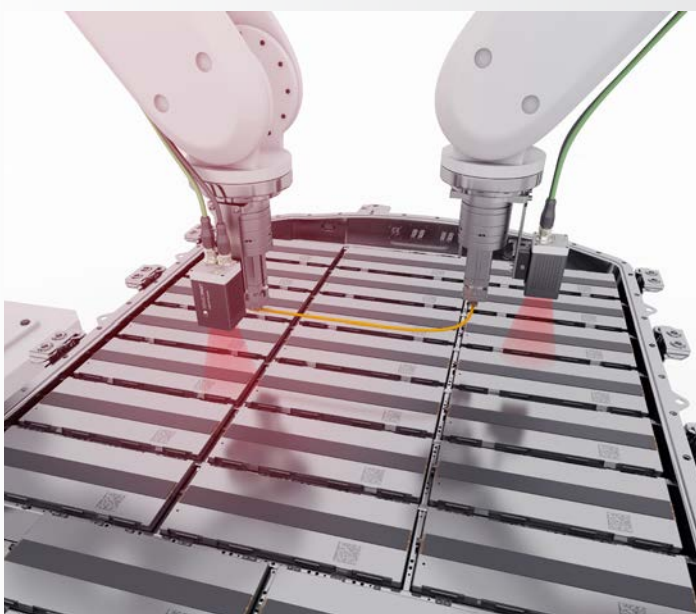


Transfer to test station

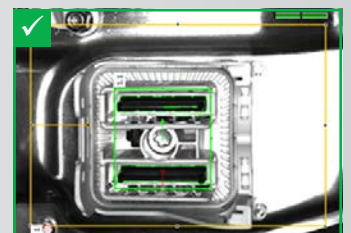
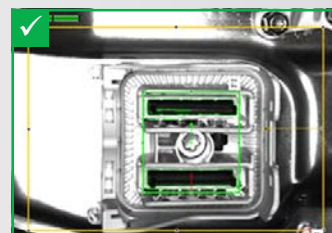
Target Mark 3D technology addresses this challenge by placing a coded mark on the machine. The robot program is written to reference this mark. If the robot is repositioned, such as onto a mobile platform, Target Mark technology identifies the machine requiring attention and measures the offset, automatically adjusting the robot program as needed.



Automated assembly of electrical plug connections



Robot automation helps eliminate assembly errors that could have serious consequences. Cooperative robots each grip one end of the cable and perform the plugging process simultaneously, with movements coordinated for timing and geometry. Each robot, equipped with a VISOR® Robotic, detects the precise position of the plug-in slots. The vision sensor's compact and durable design allows seamless integration into the robot gripper. The VISOR® variant with a narrow field of view ensures there is adequate distance between the gripper and the object.



VISOR® Robotic +Z

Depth-Based Positioning for Robotics



The VISOR® Robotic +Z combines a vision sensor for robotics with a built-in distance sensor, providing precise depth information to enhance VISOR® Robotic's capabilities.

An integrated projection laser ensures reliable detection of varying distances. The VISOR® Robotic precisely evaluates this data and transmits it directly to the robot controller. With built-in distance measurement, the sensor enables the robot to move at higher speeds while maintaining pinpoint accuracy.

The VISOR® Robotic +Z combines the strengths of 2D vision-guided robotics with precise distance measurement for large working distances.

HIGHLIGHTS: VISOR® ROBOTIC +Z

- 2-in-1: Vision sensor with integrated distance measurement and a large working range
- Robot positioning based on distance data
- Object recognition and distance measurement from a single source
- Reduction of misalignment, downtime, and associated costs
- Compact and lightweight housing for direct mounting on the robot gripper
- Reduced installation and setup effort

2D vision-guided robotics with integrated distance measurement

The task

In automobile production, removing body parts like car doors from load carriers is a critical process. A robot must safely and precisely pick up these components. To achieve this, a sensor must provide the robot with exact position data.

The challenge

The required distance measurements vary depending on how many components remain on the load carrier. Additionally, detecting shiny, reflective surfaces – such as metallic car parts – can be difficult.

Our solution

The VISOR® Robotic +Z combines a vision sensor for robotics with an integrated distance sensor in a single device. This dual functionality enhances the VISOR® Robotic by providing precise depth information for distances ranging from 150 mm to 2500 mm. The integrated projection laser reliably detects varying distances, allowing the VISOR® Robotic to evaluate them precisely and transmit the data directly to the robot.

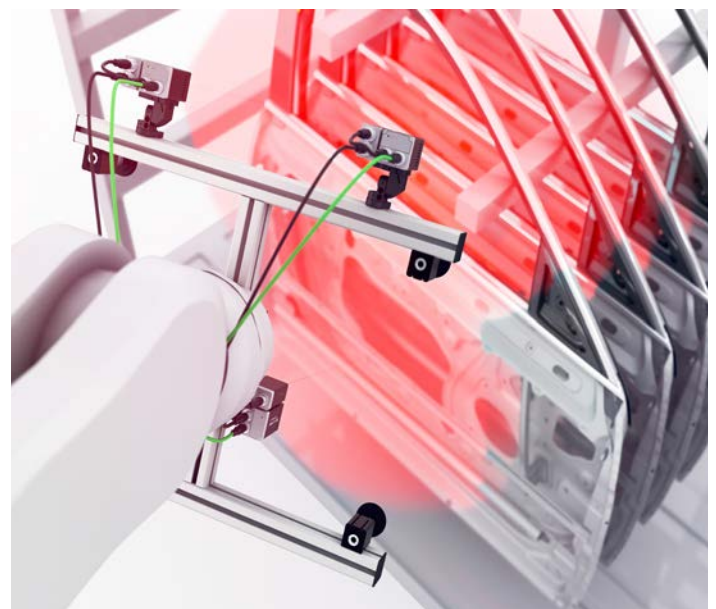
This solution offers two key advantages:

Faster cycle times – With precise distance data, the robot can quickly approach the component without the risk of a collision.

Increased accuracy – The integrated distance measurement ensures the robot positions itself with extreme precision when picking up components.

Your advantages

- Reduced cycle time
- High precision
- Large working range: 150 – 2500 mm
- Compact, high-performance hardware – Optimized for direct mounting on the robot gripper
- Clearer structure – The advantages are now presented in a more dynamic, scannable format.
- Seamless integration – Easily connects to robotic systems from leading manufacturers



VISOR® Robotic

Easy.Robot.Vision.



Simple connection to robot systems from leading manufacturers

The VISOR® Robotic vision sensor was specifically developed for the challenges in robotics applications. With its integrated, standardized interfaces, it can be easily incorporated into existing installations and robot systems from leading manufacturers.

Custom-developed apps and function modules enable seamless communication between the vision sensor and robot, and simplifying setup, operation and data exchange. This ensures fast and efficient integration into a wide range of applications.

Seamless connection to solutions from leading manufacturers:

In addition to the apps and function modules we've developed, the setup of robotics applications is further simplified by offerings from other solution providers.

Our VISOR® Robotic integrates seamlessly with these programs, ensuring effortless compatibility. Their additional tools enhance communication with robots, making setup and operation more convenient, while greatly expanding your application capabilities and efficiency.

ABB

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FANUC

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KUKA

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ELECTRIC**

STÄUBLI

UNIVERSAL ROBOTS

YASKAWA

VISOR® Robotic Starter Kits

- Everything you need to get started with one single part number
- 3 different hardware levels ranging from basic to advanced
- Kits suited for stationary or end-of-arm configurations
- Compatible with different robot manufacturers
- For more information, visit www.EasyRobotVision.com



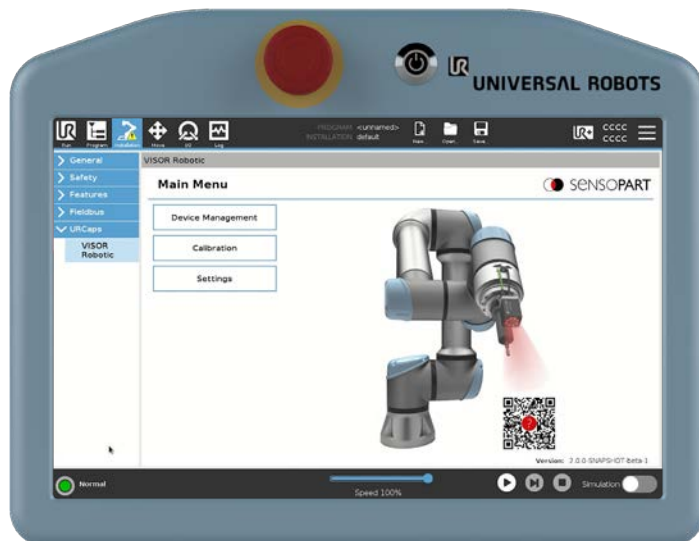


VISOR® Robotic with KUKA App

Seamless communication between VISOR® and KUKA KRC4 controller:

With our KUKA app, you can connect the VISOR® to the KUKA robot in just a few steps. The app guides you through setup, commissioning, and ongoing operation—from initial position detection to the automated restart of your application.

- Live image from the VISOR®
- Backup functions and QuickStart job sets
- Step-by-step instructions
- Fast restart thanks to fully automatable calibration routines



VISOR® Robotic URCap

One with the robot. Easy. Quick. Flexible. VISOR®.

The VISOR® Robotic URCap enables direct data exchange between VISOR® Robotic and the UR robot. Its ease of use allows for a very quick start with the application.

- Intuitive operation and easy setup
- Live image from VISOR® showing the component position
- Step-by-step instructions
- Sample programs
- Tutorial videos

SensoPart is a leading manufacturer of photoelectric sensors and machine vision sensors for factory automation. We also offer inductive and ultrasonic sensors, covering a wide spectrum of industrial automation tasks. Our products are used in a variety of industries, including automotive assembly, mechanical engineering, electronics manufacturing, solar, food, and pharmaceuticals. We take great pride in our renowned, German-made quality products, developed and manufactured at our two facilities in Germany and shipped worldwide.



 made in Germany

SensoPart worldwide

With our global network and worldwide subsidiaries, we are always ready to support you.

You can find your local team at:
www.sensopart.com/contact

