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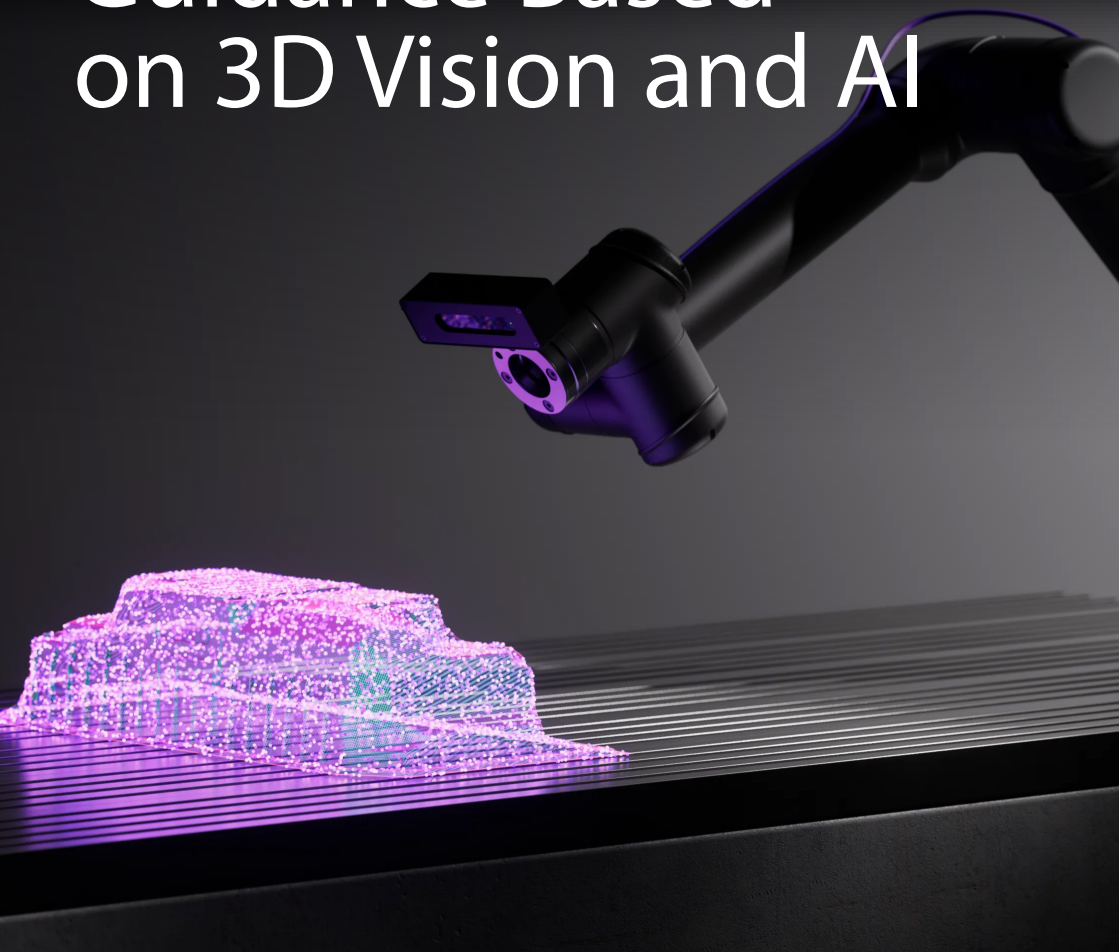
GuideNOW System
Overview 2024

GuideNOW

Industrial Robot Guidance Based on 3D Vision and AI



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GuideNOW

Industrial Robot Guidance

GuideNOW is a robot guidance solution powered by 3D vision & AI.

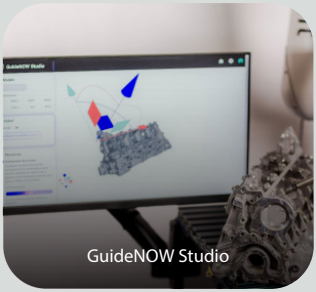
The solution is based on a AI-powered technology that locates in real-time the position & orientation of a part by comparing its CAD model to the 3D data from the camera.

GuideNOW is compatible with multiple 3D cameras according to the customer need:

GuideNOW High-Precision uses a high resolution camera ideal for small parts and high-precision operations.

GuideNOW Real-Time is ideal for speedy operations and can track a moving part in real time.

GuideNOW Real Time


GuideNOW Studio


GuideNOW High Precision

Integrations

UNIVERSAL ROBOTS

ABB

FANUC

Applications

Whether it is automating manual workstations for lower cost, or improving the efficiency and flexibility of existing cells, the inbolt GuideNOW system provides the perfect solution.
GuideNOW High Precision enables high-precision part localization to work on parts sized 2cm (0.7 inches) and over.
GuideNOW Real Time ensures high speed robot guidance, with a 80ms total reaction time.

Environments

GuideNOW enables easy and flexible automation in all types of manufacturing environments for static and dynamic workstations.

GuideNOW High Precision

GuideNOW Real Time

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Product description

Hardware Set	
1x 3D Camera & cable	- IP 65 - USB-C cable - EC markings
1x GuideNOW Controller & power supply	
1x Ethernet cable	
1x Basic robot mount	
1x Calibration target	For hand-eye calibration.
Software	
1x GuideNOW Studio License	CAD-based scene set-up and workpiece localisation algorithm training.
1x GuideNOW Execution License	Brand-specific off-the-shelf robot integration for real-time control.

Technology specifications

	GuideNOW Real Time	GuideNOW High Precision
Total programming time of a new reference	15 min	15 min
Part types & sizes	From 10x10cm to 300x300cm	From 10x10cm down to 2x2cm
Part position detection time	200 ms	< 1 sec
Total reaction time	80 ms	< 1 sec
Repeatability	1 mm in dynamic workstations 0.5 mm on fixed parts	< 0.1 mm
Maximum moving speed	From static up to 300 mm/s	Static only

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How it works

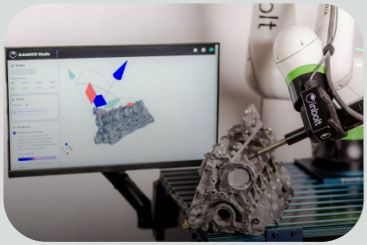
1. Mount Inbolt's 3D Camera on your robotic arm and connect it to the Inbolt controller.

2. Upload the workpiece CAD model onto GuideNOW Studio and build the cell digital twin.

3. Train inbolt's AI.

4. Send the programmed AI to the robot controller, and start programming the robot trajectory as usual.

The whole process takes less than 15 minutes.



Benefits

reduce infrastructure

Less accuracy required in OLP.

No need for jigs or indexing.

enable flexibility

Recondition cells rapidly to launch new models.

Work on different model references on a same line.

improve efficiency

No time lost for trajectory realignment.

Enables automation on moving parts for increased productivity.

GuideNOW reduces the total cost of automation

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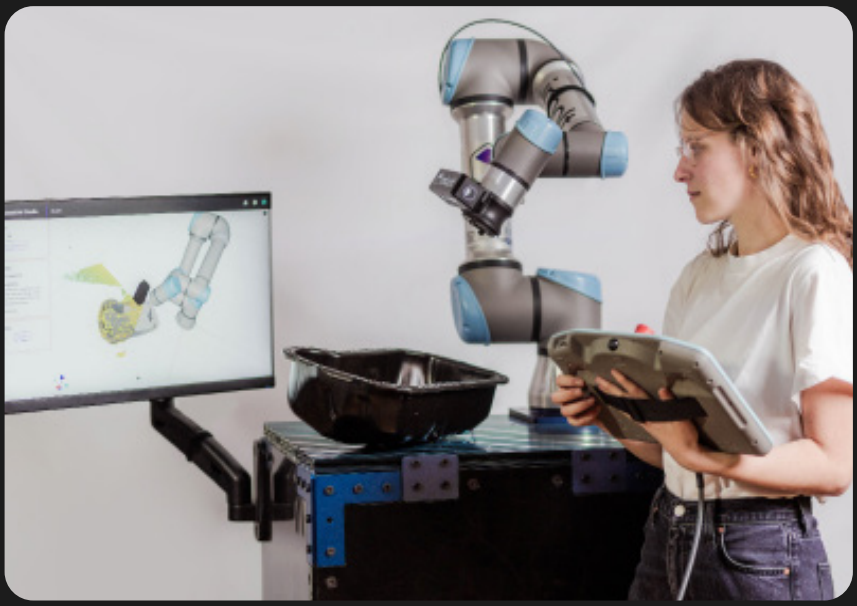

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