

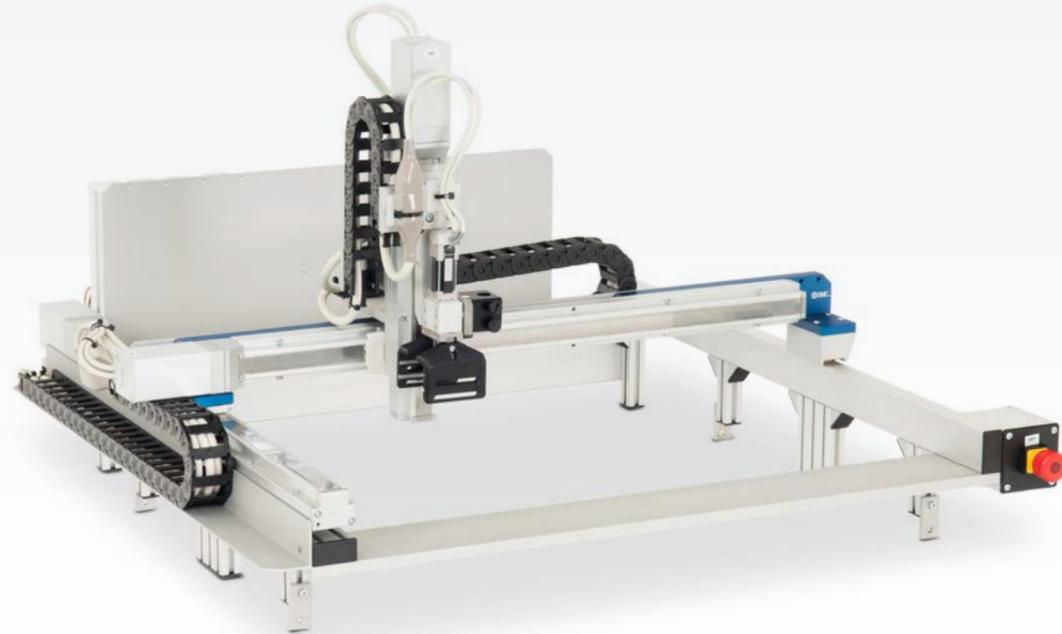
3-AXIS GANTRY ROBOT

Versatile manufacturing in the smart factory

3-AXIS GANTRY ROBOT



+ Best preparation for the smart factory
(Industry 4.0)



+ Unlimited safety



A 3-axis gantry robot to teach the fundamentals

A storage surface on the front side provides additional space to unload workpieces coming out of a production process or simply to serve as a temporary storage location. The three axes are powered by servo motors whose controllers are connected to a PLC system via PROFINET. The two-point electrically operated gripper is also operated by a controller via PROFINET and can handle any given workpiece up to a weight of 300 g.

Technical data

- Traversing axis in the x-direction: 500 mm
- Traversing axis in the y-direction: 500 mm
- Traversing axis in the z-direction: 150 mm
- Carrying load: max. 300 g
- Positioning accuracy: 0.02 mm
- Recirculating ball screw
- 24 V servo technology
- Electrically operated 2-point gripper
- PROFINET for all 4 axes
- Pen holder – to attach pens. In the case of malfunction, the holder releases the pen to prevent any damage from occurring.

The 3-axis gantry robot can be integrated directly into training without any additional safety measures needed. A high degree of safety has been provided thanks to the safe, reduced speed of maximum 25 cm/s and the additional force restriction on the axes. The gantry robot can be deployed immediately.

Industry made safe for training and education

- Safely reduced speed means no housing needed
- Limiting force applied to the axes prevents risk of injury
- No handling required within the operating range of the robot
- No damage or injury possible due to faulty operation
- All contacts are covered for safety purposes
- 24 V operation

ONE SYSTEM – HIGH DEGREE OF VERSATILITY



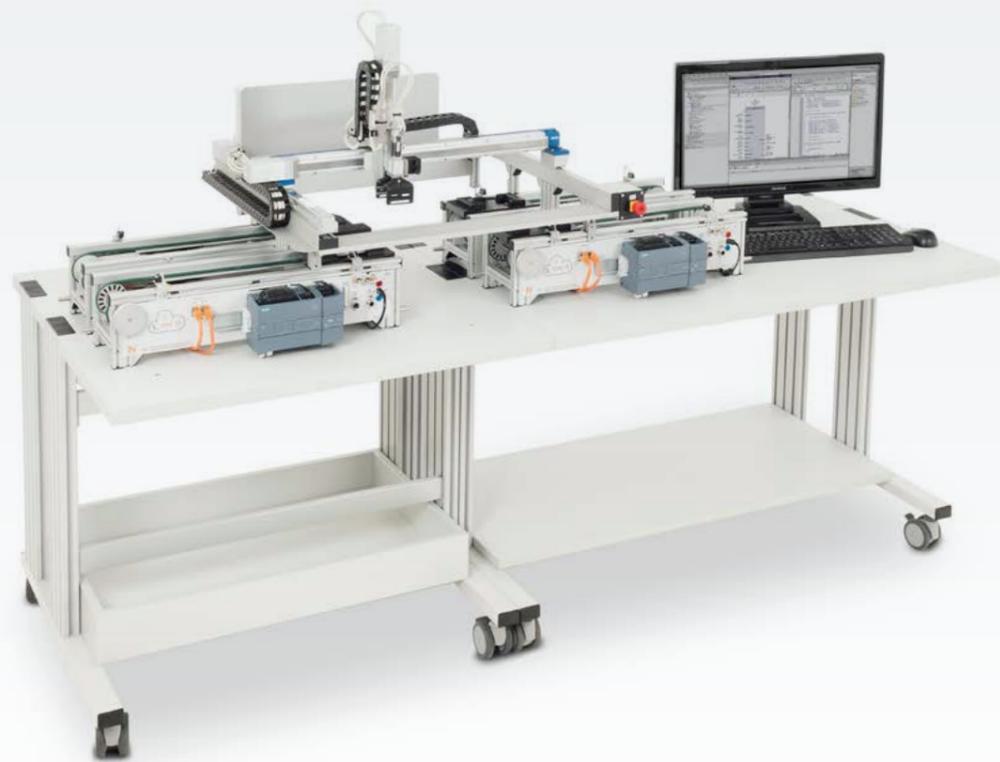
The gantry robot should not be seen as limited to a single system for the training of fundamentals. In fact, the system has been designed to offer a multitude of deployment options. The widest variety of project examples can be programmed using any random control unit. When set up and positioned on the appropriate lab bench, the overlay masks described in the course can be fitted precisely onto the holders provided.

It is also possible to combine this system with our IMS® mechatronics system. That way, the gantry robot can be integrated into a fully automated production line.

Projects

- Axis control in manual operating mode
- Incremental movements
- Slalom run
- Convey workpieces
- Stack workpieces
- Circular track mode
- Warehouse management

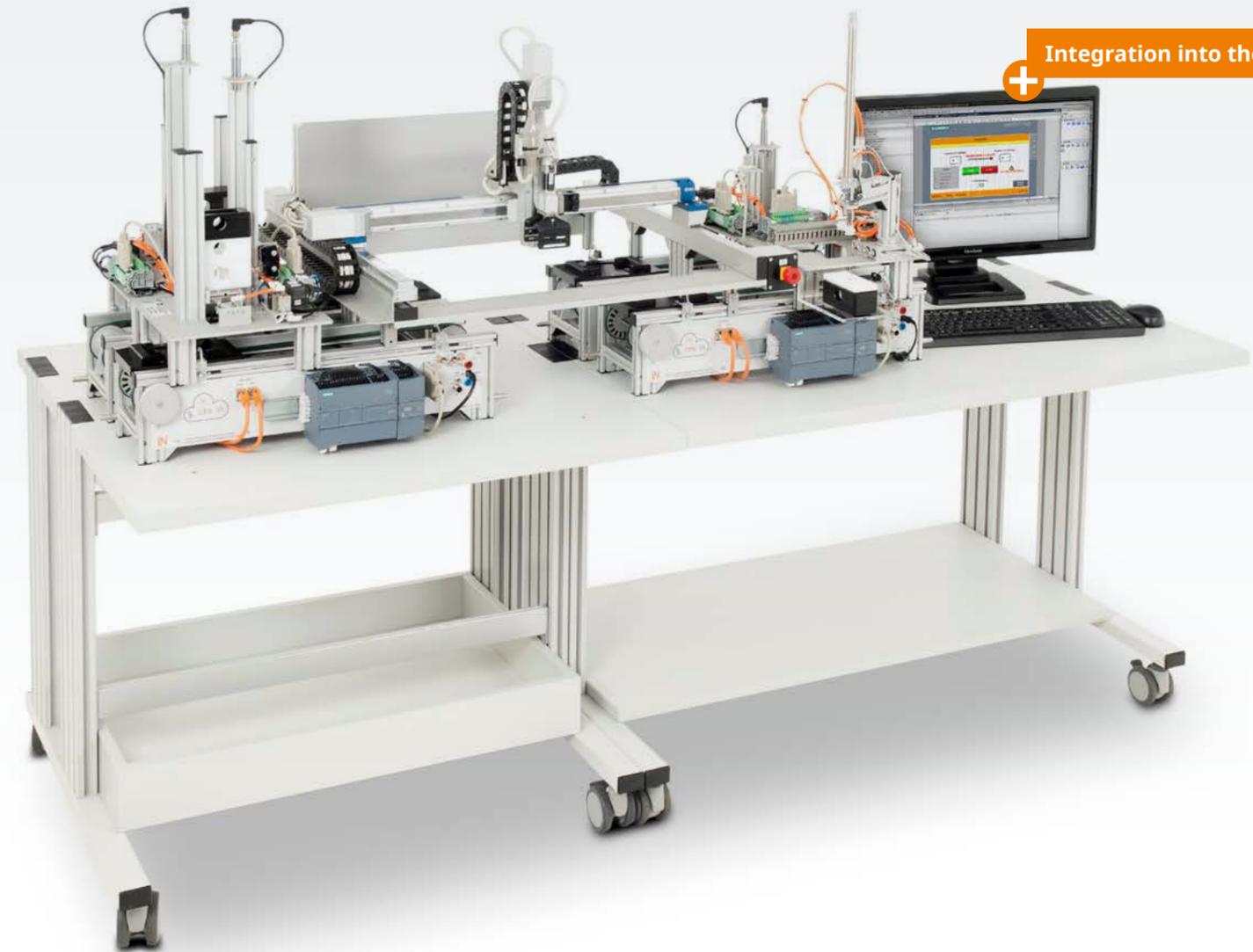
MAXIMUM EXPANSION FOR MAXIMUM COMPLEXITY



The gantry robot can be fully integrated into a production line. It is also possible to use the gantry robot to expand the smart factory system (industry 4.0). This way, the 3-axis system supports the logistical operations of a production line to convey materials between individual processing phases.

Project assignments

- Sorting workpieces
- Sorting packages
- Warehousing and logistics



+ Integration into the smart factory

Taking the system beyond vocational training, the 3-axis gantry robot has a place in the maximum expansion stage of a smart factory. The gantry robot system can be integrated into the industry 4.0 production line system to allow manufacture with even more versatility.

Project assignments

- Simple production
- Multi-model manufacturing
- Multi-model manufacturing with industry 4.0 (smart factory)



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