

Functioning of the HRC demonstrators AUTOMATICA 2016

- Short description -

Subject: Assembly task in the electronics/automotive sector
– Relief for delicate work, positioning aid

Integrator

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Assembly description

A Comau Racer5 Collaborative with a Co-Act EGP fitted is on the pedestal. On the back right there are two storage racks (in the form of pins/arbors) for the workpiece holding table, the assembly station at the front right, the storage rack for the car fuse at the front in the middle, and the storage rack for loaded workpiece holding tables at the front left. The test station for the worker is mounted on the left and the OK/not OK storage rack at the back left.

Description of the program sequence

1. The robot takes a workpiece holding table from the storage at the back right and puts it onto the assembly station.
2. The robot grabs a car fuse and loads the workpiece holding table with four pieces.
3. The loaded holding table is put on the storage rack at the front left.
The procedure is repeated until 5 workpiece holding tables are loaded and in the storage rack.
4. So that the cycle can start from the beginning again, the workpiece holding tables must be dismantled by a worker and all components brought back to their original storage place.

The robot detects when a human approaches, stops and the gripper lights up red.

Components used

Robots	Comau Racer5 Collaborative
Flange	Proprietary, bolt pitch circle 25
Grippers	EGP 040-N-N-B (0310940)
Sensor system	Inductive proximity switches
Attachment fingers	Standard Components
	Material: Anodized aluminum, protective coating in Automatica design, integrated lighting (colors: red; green; yellow; blue)
Protection cover	adapted to EG 40, in Automatica design, material: PA 12 (reworked)
Adaptation	customer-specific, 2-part Adapter plate between EGP and Comau, material: anodized aluminum

Further technical information

Control assembly	Sequential program via Comau control
Communication	Actuating the gripper via digital signals
Electrical wiring	Use of the internal wiring

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