



COMAU Dual arm robot

The Comau Smart Dual arm robot is a robotic system especially designed to perform assembling tasks. It is based on an innovative humanlike approach, having a sensor based platform and cognitive functions in order to support the assembling process. Its ease of use and the cooperation with humans in the different phases of each task, makes it ideal also for SME applications. Currently a lot of new devices and solution are under development:

- Devices for fenceless approach (safety eyes by PILZ, stereocameras)
- Vision system for parts recognition
- Force torque sensor
- Devices for easy programming (gesture and vocals recognition)
- A Kinect v2
- Festo and Schunk grippers
- Integration of C5G open control and ORL libraries.

C5G Open is suitable for industrial application that need additional sensors integrated in the system. For this purpose, used hardware parts have to be compliant with the industrials regulations.



Key Features

- Cognitive features such as skill engines, easy interactive GUI, exception handling, human robot – interaction
- Smart Dual Arm with C5G open controller
- Sensor-fusion data for complex assembling tasks
- Human-robot interaction for intuitive process definition, based on manufacturing process models and sensor data
- Fenceless approach using safety sensors
- Multifunctional equipment on board (tool changer, grippers, nutrunner)

Possible Applications

- Mechanical parts handling
- Gear box assembling
- Hydraulic pump assembling
- Artificial Intelligence
- Sewing machine disassembling

Access information

Corresponding infrastructure	School of Advanced Studies Sant'Anna The BioRobotics Institute
Location	Viale Rinaldo Piaggio, 34 56025 Pontedera PI, Italy
Unit of access	Working day



Technical specifications

Synchronization	Syncmove (timing synchronization) among the two Arms and Torso
Arms	2 anthropomorphous Arms with 6 axes
Other	1 positioner arm for the TORSO (1 axis)
Payload	10 kg payload per arm (tot: 20kg)
Controlling	A total of 13 axes managed by the same C5G controller unit

Additional information

<http://echord.eu/the-peccioli-rif>