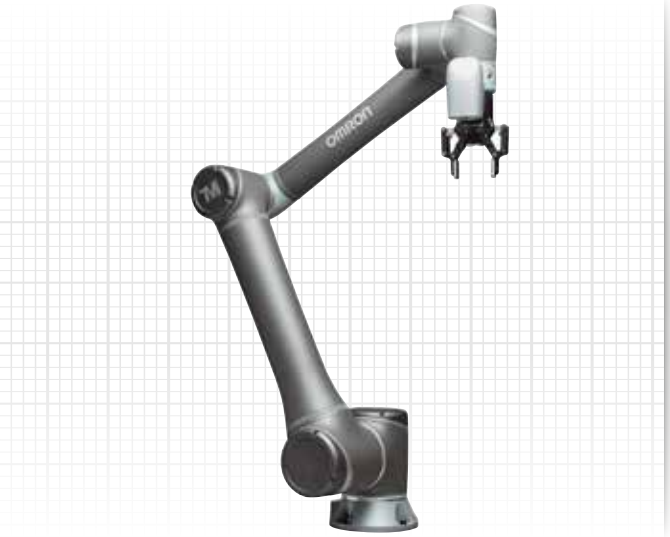
Omron Cobots

Human and Machine in Perfect Harmony

5 Things to never forget:

1. Quick and easy program (teaching without pendant), you do not need to be an expert.
2. Built-in Vision System fully integrated with software.
3. Safe: ISO 10218 and ISO/TS 15066… Software interfaces facilitates Risk Assessment.
4. Quick Startup and Changeover: Plug & Play Intuitive Ecosystem.
5. Transportable with Mobile Working Station and with LD mobile robot (MOMA – Mobile Manipulator) coming soon.



Features and benefits

- Repeatability +/- 0.05 mm
- Degrees of freedom: 6 rotation joints
- I/O ports: 16/16 digital input/output and 2/1 analog input/output
- Robot arm IP54
- Control box IP32
- Power Consumption 220watts
- Temperature working range: 0-50 C degrees
- I/O Interface: 3xCOM, 1xHDMI, 3xLAN, 4xUSB2.0, 2xUSB3.0, 1xVGA
- Communication: RS232, Ethernet, MODBUS TCP/RTU (master & slave)
- Programming environment: Tmflow, Flow chart based
- Eye in Hand (Built-in): 1.2M/5M pixels, color camera
- Eye to Hand (Optional): Support Maximum 2 GigE cameras
- Certification: CE (by Regional Model), SEMI S2 (Option)

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Important to find out

- Do you know how the new technologies like Cobots can help you to improve your business?
- Are you facing difficulties to find specialized people for your factory?
- What is your cost everytime that product changeover is needed?
- Do you have manual repetitive tasks that you would like to automate?

Markets and applications

Automotive

Assembly and Pick&Place applications are the most common for this robots. The robot can perform a manual repetitive task even when the product are not sorted thanks to the integrated vision system and software capabilities.
Also machine tending where the robot, using grippers and vision system, can totally substitute and operator loading and unloading CNC machine.

Food & Commodity

Specilly for palletizing where customer does not need to install fences and the total cost of the investment is drastically dereased at the same time that the factory footprint is reduced saving a lot of space in the factory.

Sales considerations

Factories around the world face many challenges, most important are:

- Shortage of labor: It is difficult to find enough specialized people for the factories.
- Repetitive tasks in high-mix very low-volume: Repetitive tasks high-mix/small batches are often done by workers (industrial robots are not cost effective for regular production change-over). These tasks are requiring large human capital, which is becoming more difficult and expensive to find/maintain around the world.

As conclusion, there is an urgent need/challenge for the End User to automate manual repetitive tasks.
To overcome this challenge, End Users are looking for new technologies to automate manual process like mobile robots or collaborative robots

Competitors

Comparative Table UR vs Omron

UNIVERSAL ROBOTS			OMRON		
Model	**Payload**	**Reach**	**Model**	**Payload**	**Reach**
UR3	3 Kg	500 mm			
UR5	5 Kg	850 mm	TM5-700	6 Kg	700 mm
			TM5-900	4 Kg	900 mm
UR10	10 Kg	1300 mm	TM12	12 Kg	1300 mm
			TM14	14 Kg	1100 mm