

**Universal use.  
Collaborative Robots**



Fast Set Up  
Light Weight  
Easy Programming  
Flexible Deployment  
Collaborative & Safe  
Fastest Payback in the Industry

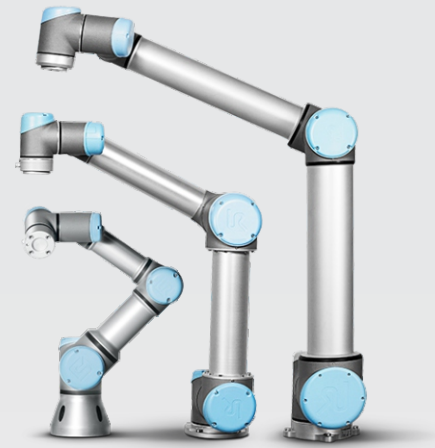
Optimize with human-robot collaboration  
**Productivity. Quality. Safety**



# UNIVERSAL ROBOTS

Technical Specifications	UR3	UR5	UR10
<b>Weight:</b>	11 kg	18.4 kg	28.9 kg
<b>Payload:</b>	3 kg	5 kg	10 kg
<b>Reach:</b>	500 mm	850 mm	1300 mm
<b>Joint ranges:</b>	+/-360° Infinite rotation on end joint		+/-360°
<b>Speed:</b>	All wrist joints: 360°/sec. Other joints: 180°/sec. Tool: Typical 1 m/s. / 39.4 in/s.	All joints: 180°/sec. Tool: Typical 1 m/s. / 39.4 in/s.	Base & Shoulder: 120°/sec. Elbow, Wrist 1, Wrist 2, Wrist 3: 180°/sec Tool: Typical 1 m/s. / 39.4 in/s.
<b>Repeatability:</b>	+/- 0.1mm in (4 mils)		
<b>Footprint:</b>	Ø128 mm	Ø149 mm	Ø190 mm
<b>Degrees of freedom:</b>	6 rotating joints		
<b>Control box size (WxHxD):</b>	475 mm x 423 mm x 268 mm		
<b>I/O ports:</b>		Controlbox	Tool conn.
		Digital in	16
		Digital out	16
		Analog in	2
		Analog out	2
			-
<b>I/O power supply:</b>	24V 2A in control box and 12V / 24V 600mA in tool		
<b>Communication:</b>	TCP/IP 100 Mbit: IEEE 802.3u, 100BASE-TX Ethernet socket & Modbus TCP		
<b>Programming:</b>	Polyscope graphical user interface on 12" touchscreen with mounting		
<b>Noise:</b>	Comparatively noiseless		
<b>IP classification:</b>	IP64	IP54	
<b>Power consumption:</b>	Approx. 100 watts	Approx. 200 watts	Approx. 350 watts
<b>Collaboration operation:</b>	15 Advanced Safety Functions Tested in accordance with: EN ISO 13849:2008 PL d EN ISO 10218-1:2011, Clause 5.4.3		
<b>Materials:</b>	Aluminium, PP plastic		
<b>Temperature:</b>	The robot can work in a temperature range of 0-50° C*		
<b>Power supply:</b>	100-240 VAC, 50-60 Hz		
<b>Cabling:</b>	Cable between robot and control box (6 m) Cable between touchscreen and control box (4.5 m)		

\* At high continuous joint speed, ambient temperature is reduced



UR3 UR5 UR10

## Unique Features of UR and its benefits

**Light weight, small & compact robots** that allow users immense flexibility.

**Highly collaborative & safe** to working in close proximity with workers without additional investments for safety guarding.

**Simple to program** so that floor workers are able to learn to program robots independently without relying on specialized engineers and incurring hefty engineering fees.

**Affordable** for SMEs to automate and deploy robots as initial ownership costs and total integration costs are low.

### Modular Design

Universal Robots are highly flexible and relevant across a wide range of industries. They are 6-axis articulate robots with +/-360° rotation on all joints. The UR3 has an infinite rotation on its end point.

The design of the robot is modular whereby each joint contains its own gear and servo motor. This ensures easy troubleshooting as well as minimal maintenance and spare part stocking.

The robot is also very quiet - producing minimal noise when in operation. It uses approx. 100-350 watts of power depending on the robot model.

No transformers are required when plugging to a power source. Universal Robots uses a single-phase power supply, which can be plugged and played immediately.

### Software

The software is developed and written by Universal Robots. The software is available free of charge on the website. There are language capabilities of up-to 18 languages.

In essence, one will be able to benefit between 30-40% cost saving in integration costs when one incorporates Universal Robots in the production line as compared to traditional industrial robots in the market.

Universal Robots has truly made automation possible and more affordable for SMEs.

Machine Building Components  
Assembly Line & Workplaces  
Material Handling Solutions  
**Robotic Solutions**  
Special Purpose Machines



**ALSTRUT**  
POSSIBILITIES UNLIMITED

**Alstrut India Private Limited**  
267 Kilpauk Garden Road  
Chennai 600 010, India

+91-44-4294-9000

[ur@alstrut.com](mailto:ur@alstrut.com)

[www.alstrut.com](http://www.alstrut.com)

