UNIVERSAL ROBOTS

Meet the World's *#1* Collaborative Robot

THE e-SERIES
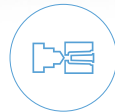
- PACKAGING AND PALLETIZING
- MACHINE TENDING
- INDUSTRIAL ASSEMBLY
- PICK AND PLACE
- INJECTION MOLDING
- GLUING, DISPENSING, WELDING

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- CERTIFIED PLUG AND PLAY PRODUCTS WITH **UR+** ECOSYSTEM
- FREE ONLINE TRAINING PROGRAM

universal-robots.com

SUPERCHARGE GROWTH WITH THE e-Series

GET AN EDGE OVER YOUR COMPETITORS WITH THE e-Series' FIVE KEY BENEFITS

EASY PROGRAMMING

87 minutes to turn anyone into a robot programmer.
- Integrated Force Torque Sensor
- User friendly Teach Pendant
- Intuitive 3D interface
- Drag-and-drop functions

FAST SET-UP

The e-Series takes less than 60 minutes to unpack, mount, and program after completion of UR Academy Training.
- Connects to a 110 VAC power outlet
- Intuitive user interface
- 20 industrial I/O connectors
- Ethernet connectivity
- Easy integration into almost any production set-up

SAFE & COLLABORATIVE

Bridge the gap between man and machine.
- Customizable stopping times + stopping distance
- Collision detection
- 17 safety functions, all EN ISO 13849-1, Cat.3, PL d, certified by TÜV NORD
- ISO 10218-1 Cat 3, PLd, certified by TÜV NORD

FLEXIBLE

Infinite ways of deployment and task automation.
- Universal Robots+ offers plug and play cutting edge products
- Lightweight – easy to relocate
- Mounts in any orientation
- Ability to save programs and redeploy to new tasks

FAST PAYBACK

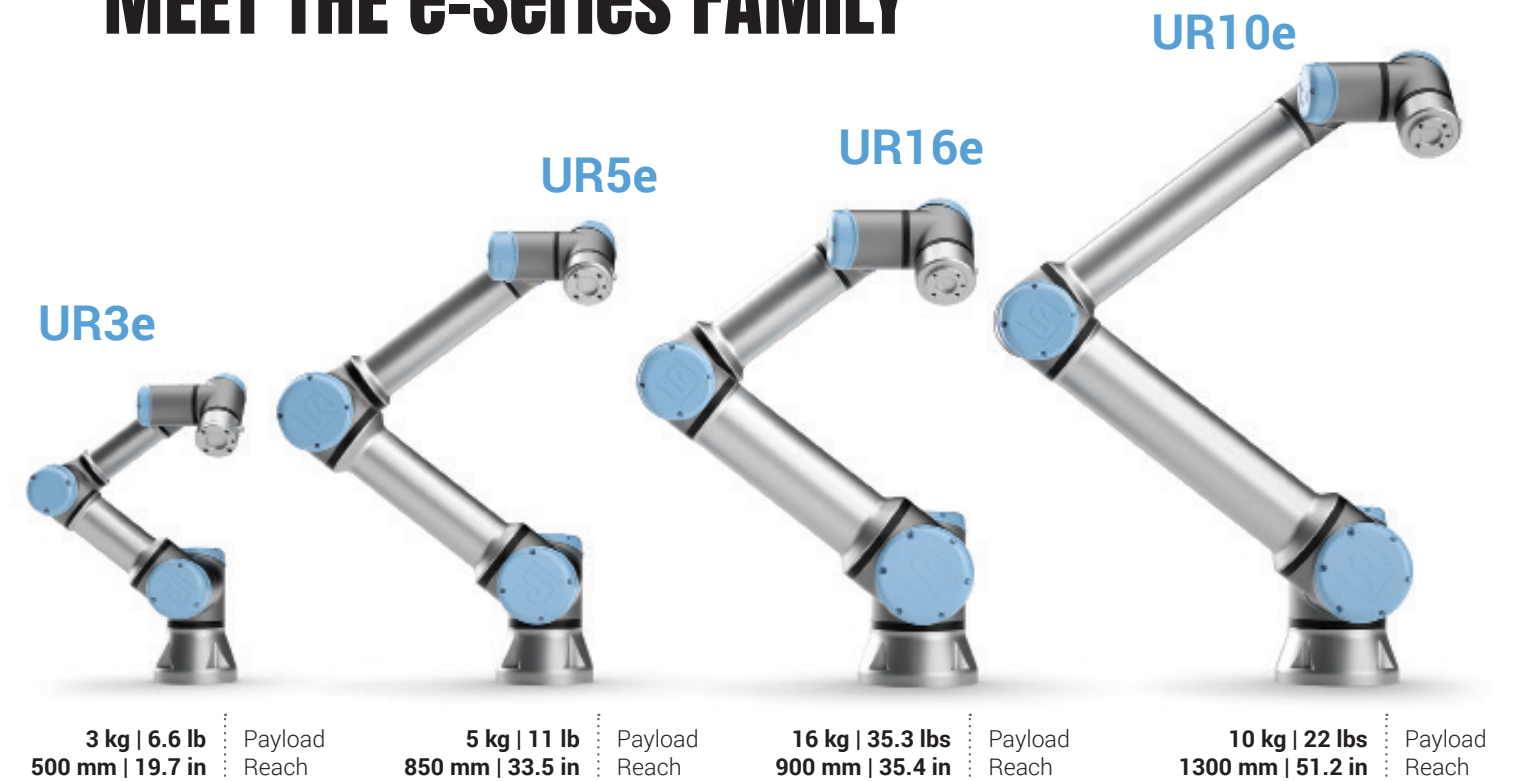*34 days - our fastest recorded payback worldwide.*
- Advanced collaborative robots - available to companies of any size
- Fully upgradable software platform for a lasting and worthy investment

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MEET THE e-Series FAMILY

UR10e

UR16e

UR5e

UR3e

3 kg | 6.6 lb Payload	**5 kg | 11 lb** Payload	**16 kg | 35.3 lbs** Payload	**10 kg | 22 lbs** Payload
500 mm | 19.7 in Reach	**850 mm | 33.5 in** Reach	**900 mm | 35.4 in** Reach	**1300 mm | 51.2 in** Reach

Control box

Features

IP classification	IP44
ISO 14644-1 Class Cleanroom	6
Ambient temperature range	0-50°C
I/O ports	
Digital in	16
Digital out	16
Analog in	2
Analog out	2
Quadrature Digital Inputs	4
I/O power supply	24V 2A
Communication	500 Hz Control frequency Modbus TCP PROFINET Ethernet/IP USB 2.0, USB 3.0
Power source	100-240VAC, 47-440Hz
Humidity	90%RH (non-condensing)

Physical

Control box size (WxHxD)	475 mm x 423 mm x 268 mm (18.7 in x 16.7 in x 10.6 in)
Weight	12 kg (26.5 lbs)
Materials	Powder coated steel

Teach pendant

Features

IP classification	IP54
Humidity	90%RH (non-condensing)
Display resolution	1280 x 800 pixels

Physical

Materials	Plastic, PP
Weight including 1m of TP cable	1.6 kg (3.5 lbs)
Cable length	4.5 m (177.17 in)

- *Intuitive programming flow*
- *Light and responsive Teach Pendant*
- *Thin cable and wide screen*
- *Customizable stopping time and stopping distance*

	UR3e	UR5e	UR10e	UR16e

Specifications

Payload	3 kg (6.6 lbs)	5 kg (11 lbs)	10 kg (22 lbs)	16 kg (35.3 lbs)
Reach	500 mm (19.7 in)	850 mm (33.5 in)	1300 mm (51.2 in)	900 mm (35.4 in)
Degrees of freedom	6 rotating joints			
Programming	12 inch touchscreen with polyscope graphical user interface			

Performance

Power, consumption, maximum average	300 W	570 W	615 W	585 W
Safety	17 configurable safety functions			
Certifications	EN ISO 13849-1, PLd Category 3, and EN ISO 10218-1			

Force Sensing, Tool Flange	Force, x-y-z	Torque, x-y-z	Force, x-y-z	Torque, x-y-z	Force, x-y-z	Torque, x-y-z	Force, x-y-z	Torque, x-y-z
Range	30.0 N	10.0 Nm	50.0 N	10.0 Nm	100.0 N	10.0 Nm	160.0 N	10.0 Nm
Precision	2.0 N	0.1 Nm	3.5 N	0.2 Nm	5.0 N	0.2 Nm	5.0 N	0.2 Nm
Accuracy	3.5 N	0.1 Nm	4.0 N	0.3 Nm	5.5 N	0.5 Nm	5.5 N	0.5 Nm

Movement

Pose Repeatability per ISO 9283	± 0.03 mm	± 0.03 mm	± 0.05 mm	± 0.05 mm

Axis movement	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed
Base	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 120°/s	± 360°	± 120°/s
Shoulder	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 120°/s	± 360°	± 120°/s
Elbow	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 180°/s
Wrist 1	± 360°	± 360°/s	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 180°/s
Wrist 2	± 360°	± 360°/s	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 180°/s
Wrist 3	Infinite	± 360°/s	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 180°/s

Typical TCP speed	1 m/s (39.4 in/s)			

Features

IP classification	IP54			
ISO 14644-1 Class Cleanroom	5			
Noise	Less than 60 dB(A)	Less than 65 dB(A)	Less than 65 dB(A)	Less than 65 dB(A)
Robot mounting	Any Orientation			

I/O ports				
Digital in	2			
Digital out	2			
Analog in	2			
Tool I/O Power Supply Voltage	12/24 V			
Tool I/O Power Supply	600 mA	1.5 A (Dual pin) 1 A (Single pin)	2 A (Dual pin) 1 A (Single pin)	2 A (Dual pin) 1 A (Single pin)

Physical

Footprint	Ø 128 mm	Ø 149 mm	Ø 190 mm	Ø 190mm
Materials	Aluminium, Plastic, Steel			
Tool (end-effector) connector type	M8 | M8 8-pin			
Cable length robot arm	6 m (236 in)			
Weight including cable	11.2 kg (24.7 lbs)	20.6 kg (45.4 lbs)	33.5 kg (73.9 lbs)	33.1 kg (73 lbs)
Operating temperature range	0-50°C			
Humidity	90%RH (non-condensing)			

* The robot can work in a temperature range of 0-50°C at a high continuous joint speed, ambient temperature is reduced.

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