



Accelerating the future of robotics for humans

 **magbot**

*Robot Automatic Tool Changer*



# Magbot, Leading Robot Industry as Core of 4th Industrial Revolution

## The new standard of Robot Automatic Tool Changer

## The World 1st completely wireless automatic tool changer, Magbot

Magbot, robot automatic tool changer, is the world's first fully wireless changing system.

A single robot requires various robot end-effectors (tools) to provide multi-processing and services; thus, an automated robotic tool changer is essential to change the tools automatically.

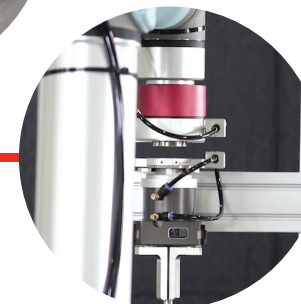
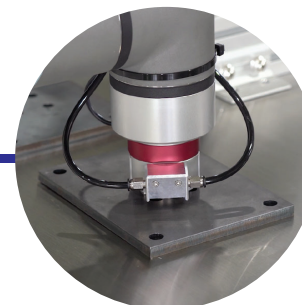
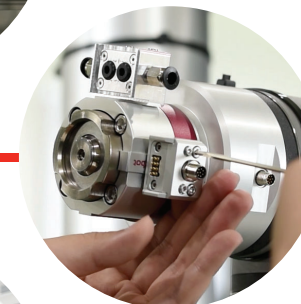
Magbot, an automated robotic tool changer, offers an ultra-simple changing system based on ultra-fast, ultra-powerful switching magnetic technology.

It is recognized with the top quality with strong durability (drop, bump, vibration) and high reliability (high & low temperature, high humidity, waterproof, dustproof).

Along with the world's first fully wireless robot tool changer of TCW1, the wired tool changer of TCV1 with a payload of 10Kg and TCV2 with a payload of 16Kg are ultra-simple operating system by using the power system (24V 2A) of the collaborative robot without the external power system.

The price competitive Magbot tool plate (Tool-side Tool Changer) for the expansion of various tools for automated and unmanned robot system ensures strong scalability.

Magbot provides innovative value to customers by expanding the application to the magnetic gripper for the pick and place process, in addition to the robot automatic tool changing function.



**In addition to Automatic Tool Changer function, Magbot provides innovative value to customers by expanding it as the magnetic gripper for pick and place process.**

### World 1st Fully Wireless Robot Automatic Tool Changer

Pneumatic/Mechanical Ball Locking Tech  
Complicated wired pneumatic structure  
High-cost tool changing system

Switching Magnetic Tech  
Fully wireless structure  
Competitive-cost tool changing system

### Powerful tool scalability for Robot automation and unmanned

Magbot provides an ultra-simple tool plate with strong price competitiveness as well as strong expandability for building robot automation systems

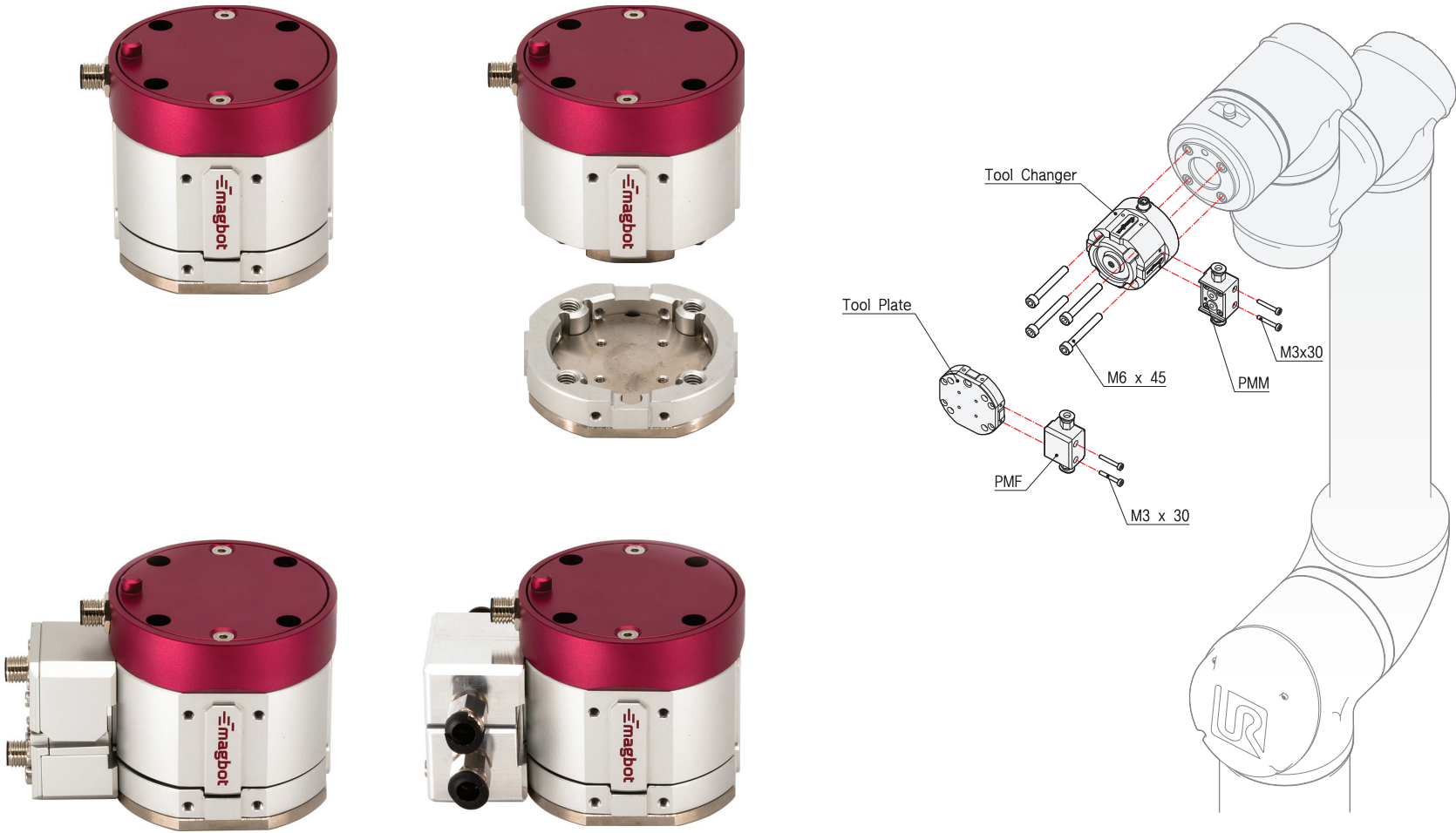
### Magnetic Gripper, added super value for our customers

Magbot TC can be also extended as a magnetic gripper for transferring ferromagnetic materials and products

### Unique and Different Switching Magnetic Technology

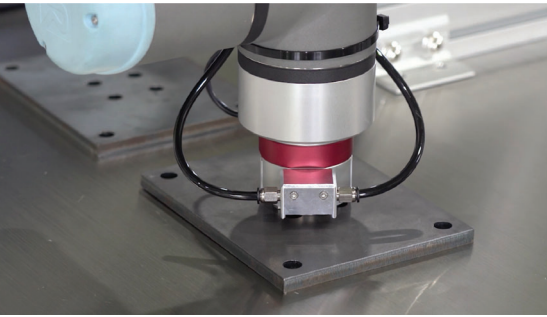
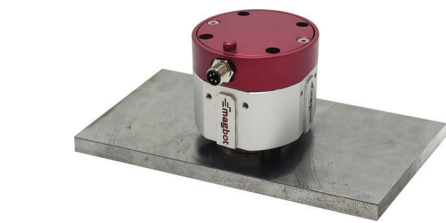
Ferromagnetic Circuit Design and Control Technology as steelmag (steel+magnet)  
Ultra-powerful, Ultra-fast, Ultra-simple magnetic tool changing technology



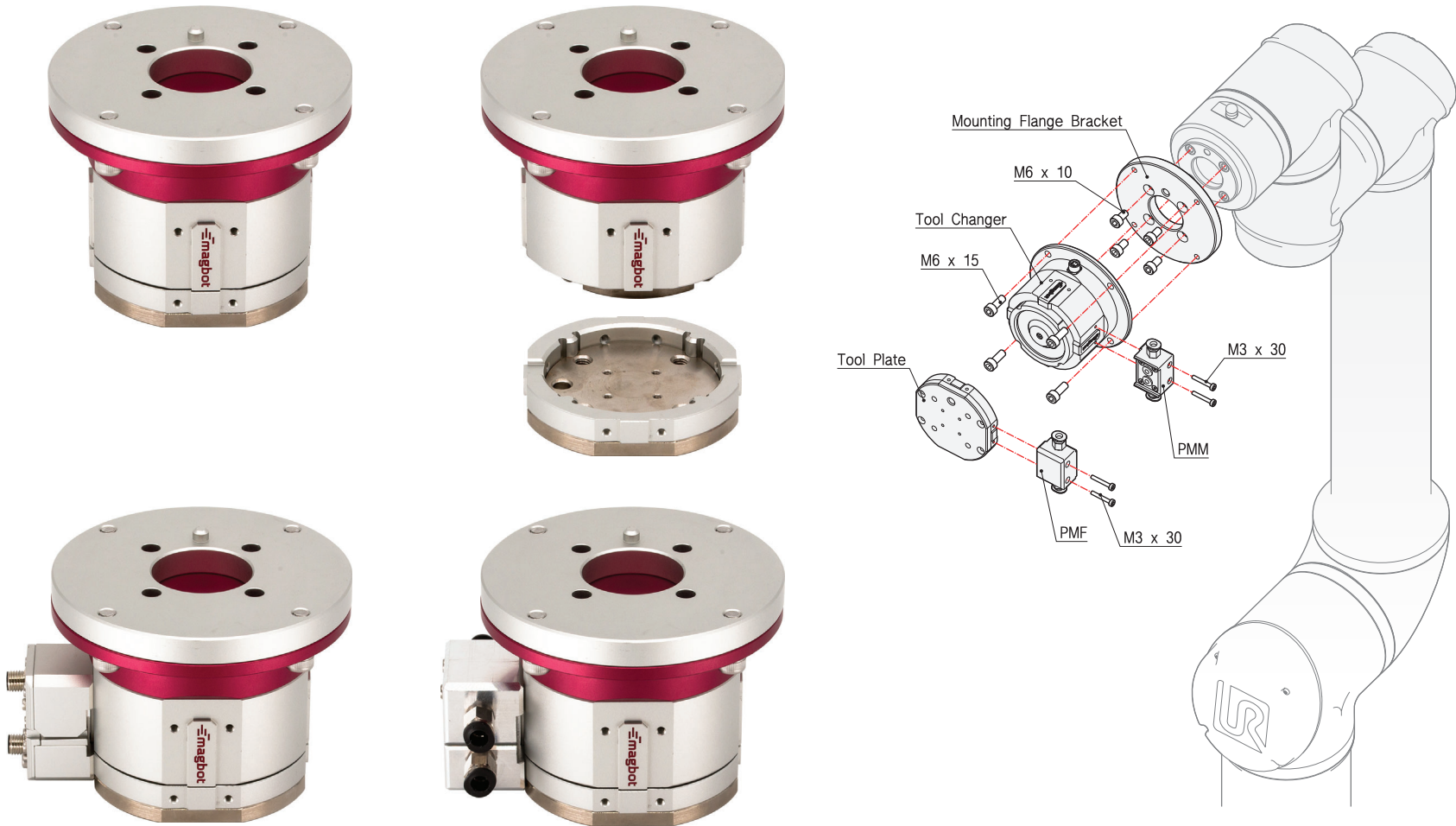


Payload (Weight capability)		98N-cm [10kg, 22.05lbs]
Compatible UR Series		UR3, UR5, UR10 & UR3e, UR5e, UR10e
Positioning Repeatability		±0.05mm
Size (Dimension)	Master TC (Robot-side TC)	Ø63 × 54mm [2.48 in × 2.087 in]
	Tool Plate (Tool-side TC)	Ø61 × 13.2mm [2.40 in × 0.52 in]
	Tool Changer (When coupled)	Ø63 × 60mm [2.48 in x 2.32 in]
Weight (Main product)	Master TC (Robot-side TC)	524g [1.16 lbs]
	Tool Plate (Tool-side TC)	136g [0.30 lbs]
	Tool Changer (When coupled)	660g [1.46 lbs]
Technology		Switch Magnetic Tech
Temperature and Humidity		-20°C~80°C [-4°F~176°F]
		0~85% (no condensation)
IP Code (Ingress Protection)		IP56
Electric Spec		24V, 2A
TC accessory	Pogo Pin(8pin) Module	1A X 8EA (Electric Module)
	Pneumatic Module	6 Bar (M6 X 2EA)
Battery Charging Time		
Operating Numbers (On/Off times) with fully charged		
Battery waiting time (unused/sleep mode)		

Magnetic Gripper

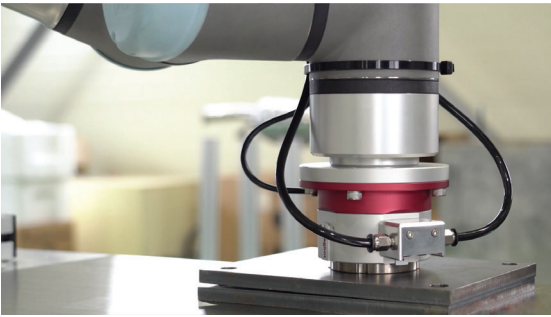


Weight Capability (Holding Force)	max 10Kg
Loading materials	Ferromagnet (Iron, etc)
Thickness of loading materials	over 0.5mm
Grip/Release Duration	0.2 sec
Electric spec	24V, 2A



Payload (Weight capability)		157N·cm [16kg, 35.27lbs]
Compatible UR Series		All UR CB & e Series (UR16e)
Positioning Repeatability		±0.05mm
Size (Dimension)	Master TC (Robot-side TC)	Ø80 × 62.5mm [3.15 in × 2.46 in]
	Tool Plate (Tool-side TC)	Ø78 × 15.2mm [3.07 in × 0.60 in]
	Tool Changer (When coupled)	Ø80 × 70.5mm [3.15 in × 2.78 in]
Weight (Main product)	Master TC (Robot-side TC)	1,146g [2.53 lbs]
	Tool Plate (Tool-side TC)	304g [0.67 lbs]
	Tool Changer (When coupled)	1450g [3.20 lbs]
Technology		Switch Magnetic Tech
Temperature and Humidity		-20°C~80°C [-4°F~176°F]
IP Code (Ingress Protection)		IP56
Electric Spec		24V, 2A
TC accessory	Pogo Pin(8pin) Module	1A X 8EA (Electric Module)
	Pneumatic Module	6 Bar (M6 X 2EA)
Battery Charging Time		
Operating Numbers (On/Off times) with fully charged		
Battery waiting time (unused/sleep mode)		

Magnetic Gripper



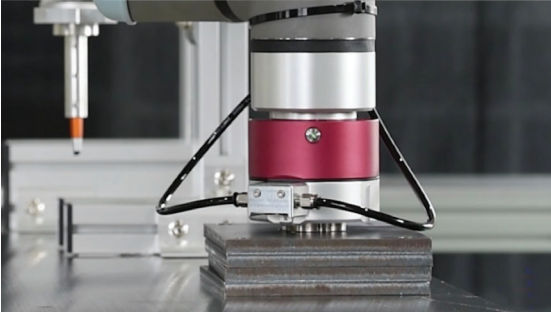
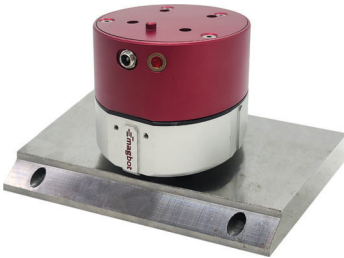
Weight Capability (Holding Force)	max 16Kg
Loading materials	Ferromagnet (Iron, etc)
Thickness of loading materials	over 0.5mm
Grip/Release Duration	0.2 sec
Electric spec	24V, 2A





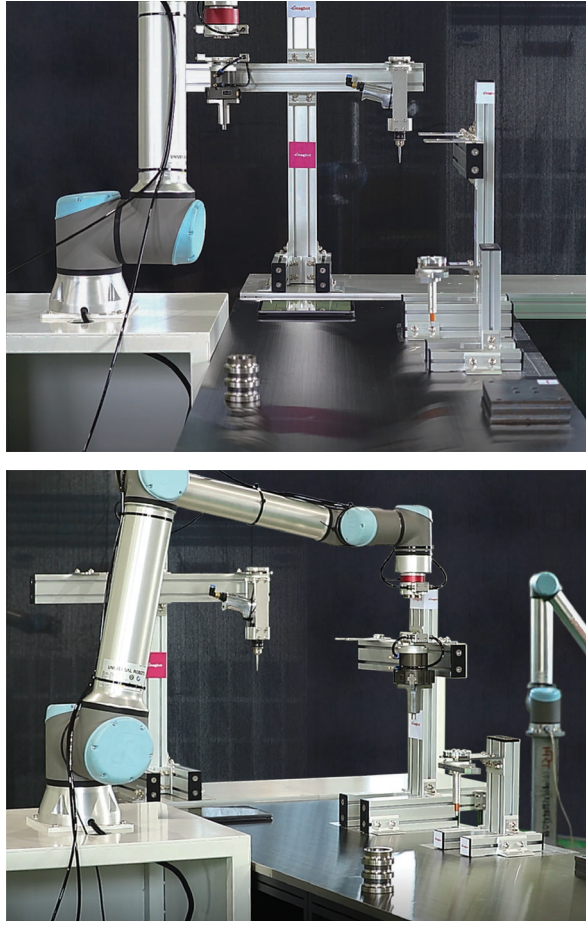
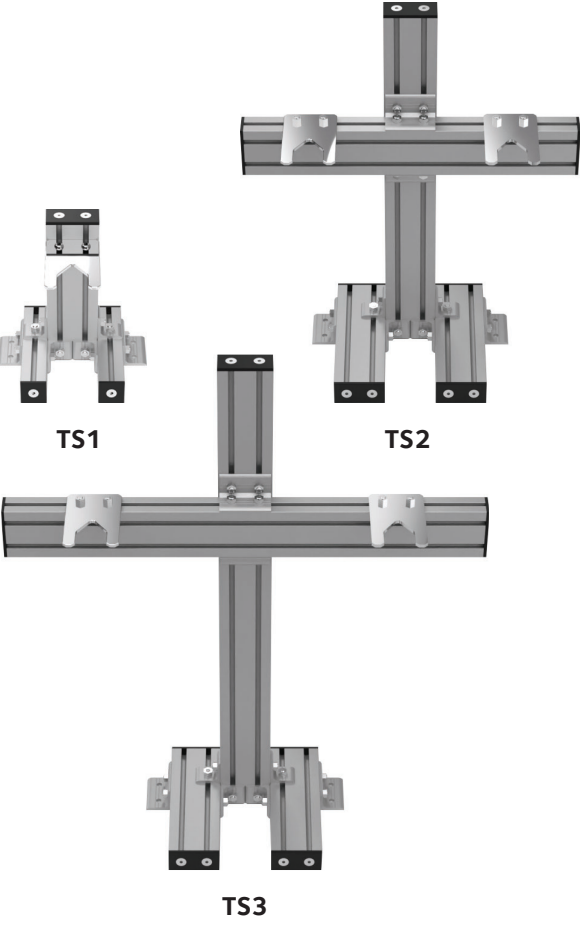
Payload (Weight capability)		98N·cm [10kg, 22.05lbs]
Compatible UR Series		UR3, UR5, UR10 & UR3e, UR5e, UR10e
Positioning Repeatability		±0.05mm
Size (Dimension)	Master TC (Robot-side TC)	Ø95 × 80.5mm [3.74 in × 3.17 in]
	Tool Plate (Tool-side TC)	Ø61 × 13.2mm [2.40 in × 0.52 in]
	Tool Changer (When coupled)	Ø95 × 86.5mm [3.74 in × 3.41 in]
Weight (Main product)	Master TC (Robot-side TC)	1,026g [2.26 lbs]
	Tool Plate (Tool-side TC)	136g [0.30 lbs]
	Tool Changer (When coupled)	1,162g [2.56lbs]
Technology		Switch Magnetic Tech
Temperature and Humidity		-20°C~80°C [-4°F~176°F]
		0~85%(no condensation)
IP Code (Ingress Protection)		IP54
Electric Spec		24V, 2A
TC accessory	Pogo Pin(8pin) Module	1A X 8EA (Electric Module)
	Pneumatic Module	6 Bar (M6 X 2EA)
Battery Charging Time		About 2 Hours
Operating Numbers (On/Off times) with fully charged		About 10,000 times
		Recharging when RED LED is On. After RED LED lights on, it can operate about 2,000 times
Battery waiting time (unused/sleep mode)		About 240 Hours (10days)

Magnetic Gripper



Weight Capability (Holding Force)	max 10Kg
Loading materials	Ferromagnet (Iron, etc)
Thickness of loading materials	over 0.5mm
Grip/Release Duration	0.2 sec
Electric spec	24V, 2A





*Robot Automatic Tool Changer Series*

Magbot provides all the necessary robotic automated tool changing system for customer's automation and unmanned.





Accelerating the future of robotics for humans



*Robot Automatic Tool Changer*

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**UND Co.,Ltd.**