

# Smart Simple Safe







#### Smart



### Simple



Safe

#### **Build-in Vision System**

TM Robot is equipped with a built-in vision system, which integrates both hardware and software perfectly. You don't need to worry about how to integrate these complicated vision components by yourself, something that always costs a lot of time and money.

#### Master in Robot Vision

Many standard robot vision functions are already built into our system: pattern matching, object localization, image enhancement, bar code reader, color classifier, etc. All these functions have been merged into our remarkable easy-to-use user interface and help TM Robot to easily achieve jigless automation tasks.

# 5 Min to Achieve A Visual Pick & Place Task

Combined with our smart vision system and hand-guiding functions, everyone, even those without robotic programming experience, can achieve a visual pick & place task within 5 minutes.

#### Revolutionary User Interface

No more coding! You can implement your automation task with our revolutionary simple-to-use user interface, an all-graphic flow chart based HMI. Users, even those without coding experience of industrial robots, can learn to use TM robot easily and quickly. You can porgram every built-in vision function on the GUI! Furthermore, a heavy and wired teach pendant is gone. Our UI can be operated on notebooks or tablets.

#### Use Your Hand

Another reason TM Robot is simpler than other robots nowadays is the well-designed hand-guiding functions and user experience. You can guide every pose and point in your task by hand and change the degree of freedom of the hand-guide function freely according to different conditions.

#### Easy to Deploy

TM robot is so simple to program, so it is very easy to be deployed into different jobs, reducing your time-to-production and saving your total cost in automation.

#### **Force Limiting**

TM Robot complies with the ISO 10218-1&ISO/TS 15066 human-robot cooperation safety requirements for collaborative robots. When the robot is hit, it will stop moving safely and automatically.

#### Think Deeply in Safety

TM Robot considers seriously about safety in every basic design of the whole robot system, including hardware, software, and operational design. All our efforts to make the robot safer bring the production and manufacturing industry into an era of human-robot collaboration.

#### Low-stress Robotics

Traditional industrial robots make you feel so stressed when you operate them. TM robot is safe and easy to operate because of its many delicate and friendly design details within.

## Specification

Model		TM5-700	TM5-700 TM5-900		
Weight		22kg		22.2kg	
Payload		6kg		4kg	
Reach		700mm		900mm	
Joint Ranges	J1	+/- 270°			
	J2,J4,J5	+/- 180°			
	J3	+/- 155°			
	J6	+/- 270°			
Speed	J1~J3	180°/s.			
	J4~J6	225°/s.			
Repeatability		+/- 0.05mm			
Degrees of Freedom		6 Rotating Joints			
I/O Ports		Digital in Digital out Analog in Analog out	Cor	ntrol Box 16 16 2 1	Tool Conn. 3 3 1 0
I/O Power Supply		24V 1.5A for control box and 24V 1.5A for tool			
IP Classification		IP54(Arm)			
Power consumption:		Max. 1300 watts			
Temperature		The robot can work in a temperature range of 0-40°C			
Power Supply		100-240 VAC, 50-60 Hz			
I/O Interface of Control Box		3×COM, 1×HDMI, 1×EtherCAT, 2×GigE, 1×LAN,4×USB2.0, 2×USB3.0, 1×VGA			
Robot Vision					
Eye in Hand (Built-in)		1.2M/5M pixels, color camera			
Eye to Hand(option)		Support Maximum 2 GigE cameras			

