



www.tm-robot.com

TM5

The world's first
collaborative robot
with built-in vision



SMART

Built-in vision system, Masters in robot vision

SIMPLE

Revolutionary user interface, Easy to deploy

SAFE

Complies with ISO10218-1 & ISO/TS 15066

SMART

Built-in vision system

TM Robot is equipped with a built-in vision system, which integrates into both the hardware and software perfectly, whereas traditional add-on vision solutions to robotics are complicated, time consuming and costly to implement.

Masters in robot vision

Many standard robot vision functions are already built into our system: pattern matching, object localisation, image enhancement, bar code reading, colour recognition, etc. All these functions have been integrated into our remarkably easy-to-use user interface.

SIMPLE

Revolutionary user interface. Easy to deploy

You can implement your automation task with our revolutionary intuitive user interface, an all-graphic flow chart based HMI. Tm Robot equipped with well designed hand-guiding functions with servo assist. You can lock selected axes to allow adjustment in defined planes and then fine tune the co-ordinates with easy editing of those co-ordinates within the programming package. TM robot is so simple to program and very easily deployed into different applications, remarkably reducing your time-to-production and saving your total cost in automation.

SAFE

Safety is our priority

TM Robot complies with the ISO 10218-1 & ISO/TS 15066 human-robot co-operation safety requirements for collaborative robots, allowing the robot to be programmed with both speed and force limits. TM Robot is serious about safety in every aspect of the design of the whole robot system, through hardware, software and operational design.

TM5 The first choice for flexible automation applications

The TM5 collaborative robot features simple programming, innovative integrated vision capabilities together with the latest safety functionality, all leading to rapid deployment in a huge variety of applications. Having vision identification functionality completely integrated within the collaborative robot platform, provides an easy and intuitive way to achieve robot calibration to work piece or tooling, product selection, 1D or 2D barcodes and a host of other vision applications, delivering a true Industry 4.0 solution.

- Achievable range: **700mm, 900mm**
- Load capability: **6kg, 4kg**
- Industrial application: 3C industry, Automobile industry, Food industry, Other

Specification

Model		TM5-700	TM5-900
Weight		22.1kg	22.6kg
Payload		6kg	4kg
Reach		700mm	900mm
Max Speed		1.1m/s	1.4m/s
Joint Ranges	J1	+/- 270°	
	J2,J4,J5	+/- 180°	
	J3	+/- 155°	
	J6	+/- 270°	
Speed	J1~J2	180°/s.	
	J3	180°/s.	
	J4~J5	225°/s.	
	J6	225°/s.	
Repeatability		+/- 0.05mm	
Degrees of Freedom		6 Rotating Joints	
I/O Ports		Control Box	Tool Conn.
	Digital in	16	3/4(by regional model)
	Digital out	16	3/4(by regional model)
	Analog in	2	1
	Analog out	1	0
I/O Power Supply		24V 1.5A for control box and 24V 1.5A for tool	
IP Classification		IP54(Arm)	
Power Consumption		Typical 220 watts	
Maximum Power Capacity ^①		Max. 1300/1400 watts(by regional model)	
Temperature		The robot can work in a temperature range of 0-50°C	
Power Supply		100-240 VAC, 50-60 Hz(Regular Model) / DC24V/48V(Mobile Model)	
I/O Interface		3×COM, 1×HDMI, 3×LAN, 4×USB2.0, 2×USB3.0 1×VGA(Reginal model)	
Certification		CE(regional model), SEMI S2(Option)	
Variation Models		X: without hand eye camera, M: Mobile(DC Version),SEMI: SEMI S2 certified	
Robot Vision			
Eye in Hand (Built-in)		1.2M/5M pixels, color camera	
Eye to Hand (option)		Support Maximum 2 GigE cameras	
① Maximum power capacity is the maximum output capacity of the power supply system designed in the control box.			

SEMI S2



TECHMAN
ROBOT



Techman Robot is a registered trademark for Techman Robot Inc., which retains all the rights and interests of this trademark. The product information is for reference only, and Techman Robot Inc. is not responsible for any error or omission. Product data is subject to change without prior notice.