

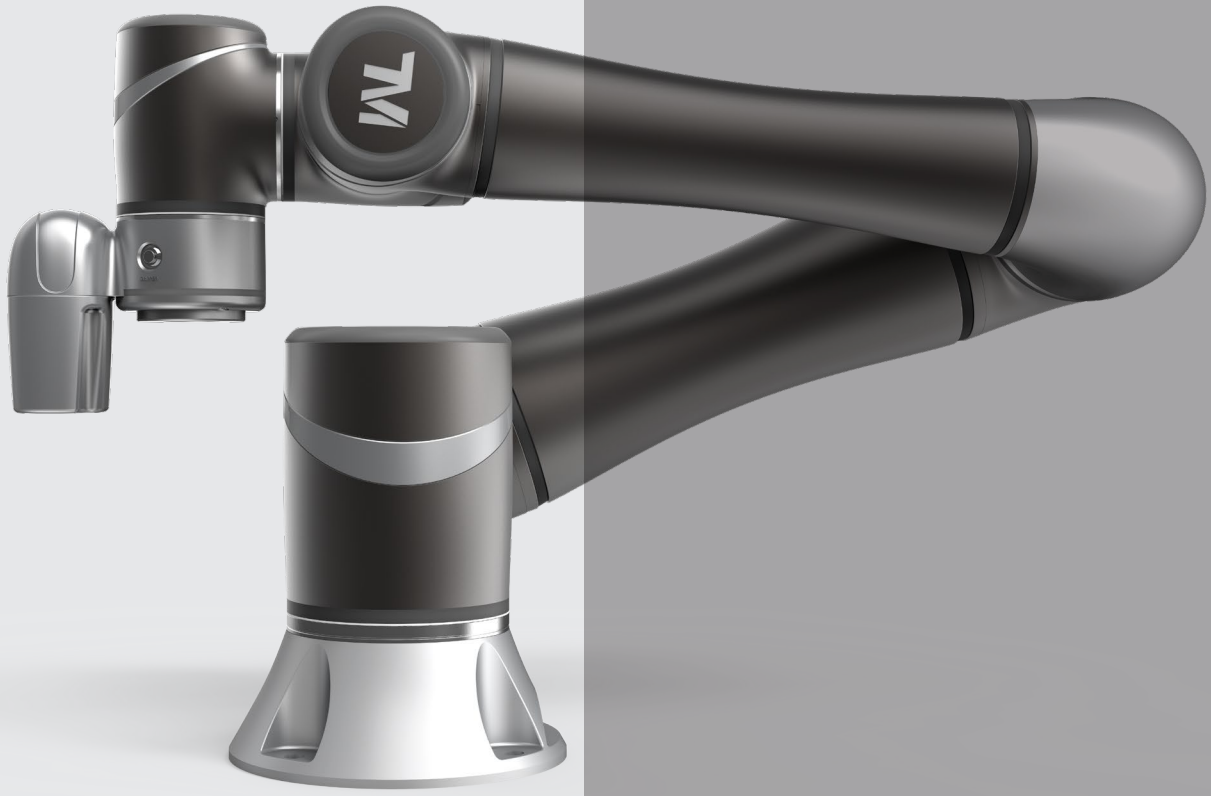


AUSTRALIS
ENGINEERING

Smart thinking
in motion



TM Robot
Collaborative robots



Smart Simple Safe

Revolutionary User Interface

You can implement your automation task with the revolutionary, intuitive user interface; an all graphic flow-chart based HMI. TM Robot is equipped with well designed, hand-guided functions with servo assist. You can lock selected axes to allow adjustment in defined planes and then fine tune the co-ordinates within the programming package.

Innovative Software - TMflow™

TMflow™ is flow based robot editing software that features intuitive click and drag programming. Even users without industrial robot programming experience can successfully complete a visual pick & place programme in as little as 5 minutes.

Safety is our Priority

TM Robot complies with ISO10218-1 and ISO/TS15066 human-robot co-operation safety requirements for collaborative robots, allowing the robot to be programmed with both speed and force limits. Safety is inherent in the design of the whole robot, its hardware, software and operational design.

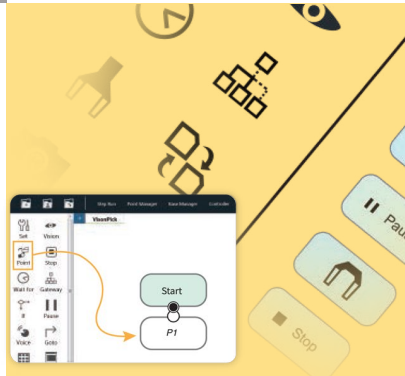
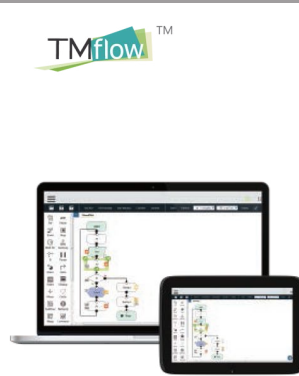
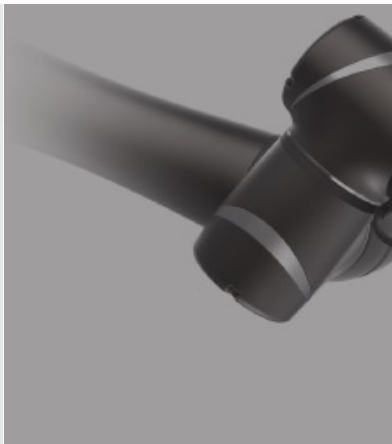
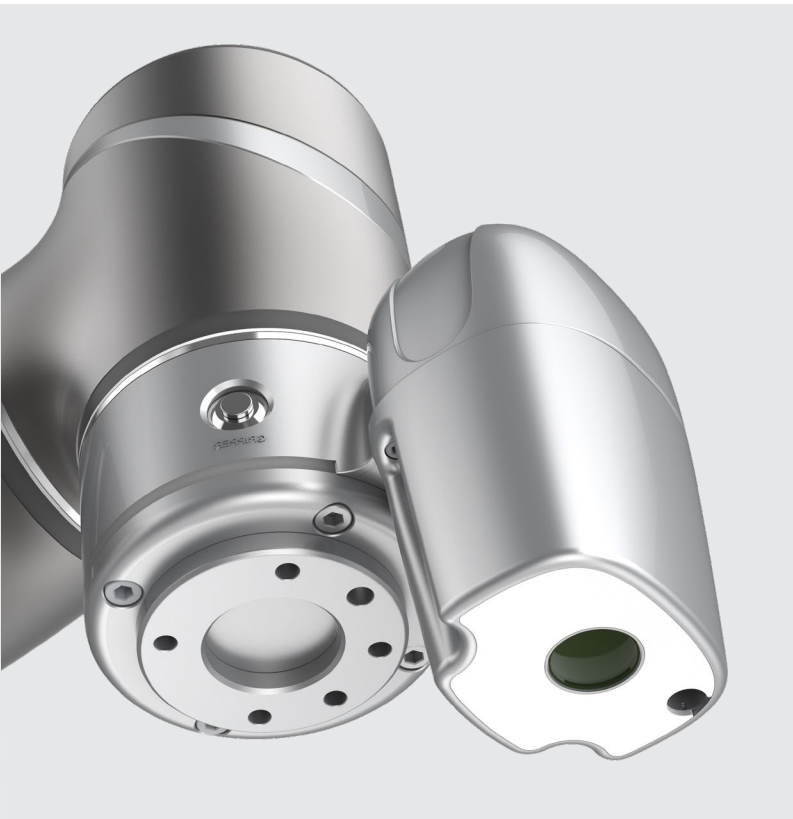


ROBOT

Official TM Robot Distributor

Australis Engineering are official Australian distributors and integrators of TM Robots.

Australis are certified to offer Basic and Advanced TM Robot training.



Built-inVision System

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

Masters in Robot Vision

Many standard robot vision functions are already built into the TM Robot system using the in-built 1.2 / 5 Megapixel camera.



Shape based pattern matching



Image based pattern matching



Position alignment with 2 points



Irregular item detection (blob finder)



Colour plane extraction



Change line thickness, patch holes etc



Contrast enhancement



Image smoothing



Image thresholding converts to Black/White



1D / 2D Barcode/ QR Code Identification



Barcode/ QR Code Colour identification



TM5

The first choice for flexible automation applications

TM Robot's TM5 cobot 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 the vision identification system completely integrated with the cobot platform provides an easy and intuitive way to achieve robot calibration to a work piece or tooling, product selection, 1D or 2D barcodes and a host of other vision applications delivering a true Industry 4.0 solution.

TM5 is suitable for computing, communication and consumer electronics, health and pharmaceuticals, automotive, food and beverage and many other applications.

Specifications in brief (TM5-700 / TM5-900)

- Achievable range 700mm / 900mm
- Load capability 6kg / 4kg
- Operational temperature range (arm) 0 to 50°C
- Built-in Robot Vision 1.2M/5M pixels colour camera
- Shape matching, barcode and QR code reading, colour recognition and OCR
- Fits numerous standard grippers and tooling

|| The most intelligent collaborative robot with built-in vision."





TM12 and TM14

Class leading payload with extended reach

TM Robot's TM12 and TM14 offer class leading payload and reach capabilities. The TM12 offers a 12kg payload and a 1300mm reach and the TM14 offers a 14kg payload and 1100mm reach.

The TM12 and TM14 cobots with higher payloads are easy to deploy, highly flexible, virtually maintenance free and offer a high performance automated solution for manufacturing.

TM-Mobile Series

The TM-M series offers solutions for AGV and mobile vehicle integration. The TM-M series are powered by a DC 20-60V supply, making them compatible with most brands of AGV's and mobile vehicles.

By utilising "TM-Landmark", the mobile robot can orientate itself within a 3D space like an auto datum sequence to multiple machine surfaces. This allows the TM-M robots to operate between two or more locations seamlessly.

The TM12 and TM14 cobots are suitable for palletising, logistics, materials handling, machine tending, packaging, polishing and de-burring.

Specifications in brief (TM12 / TM14)

- Achievable range 1100mm / 1300mm
- Load capability 14kg / 12kg
- Operational temperature range (arm) 0 to 50°C
- Built-in Robot Vision 1.2M/5M pixels colour camera
- Shape matching, barcode and QR code reading, colour recognition and OCR
- Fits numerous standard grippers and tooling
- TM-M series of also available for integration with AGV's and mobile robots

|| Set-up a Visual Pick & Place programme in as little as 5 minutes."

ACCESSORIES

TM Plug & Play Solutions

With the help of TM Plug & Play, TM Robots can connect to multiple robotic peripheral products from 3rd party suppliers*. TM Plug & Play is available standard on all TM Robots allowing rapid and low-cost implementation of robot arm tooling.

(*Some 3rd party peripherals may not be Plug&Play compatible)



HIWIN SEG-24-TM
2 Finger Gripper



HIWIN XEG32-TM
2 Finger Gripper



HIWIN STG-16-TM
3 Finger Gripper



KILEWS Screwing Solution



Robotiq Adaptive Gripper 2
Finger 85/140 TM Kit



Robotiq Adaptive Gripper
Hand-E



Robotiq FTS-300 Force
Control TM Kit



SCHUNK Co-Act EGP



ROCHU Soft Gripper - Light



ROCHU Soft Gripper -
Medium



SMC 3 Finger Gripper



SMC Low Profile 2 Finger
Gripper



Murrplastik Flexible Hose
System C-Set



igus 3D e-chain TM Kit



NABELL Protective Jackets



EtherCAT I/O Expansion
Modules



TM5-700



TM5-900

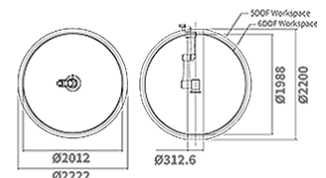
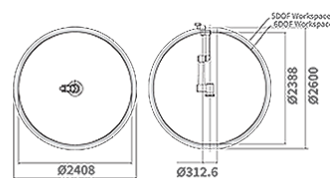
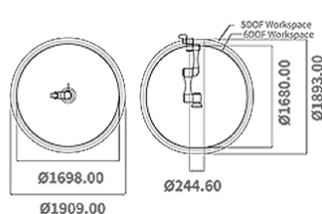
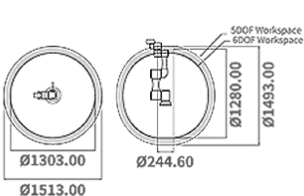


TM12



TM14

Model		TM5-700	TM5-900	TM12	TM14	TM12M	TM14M
Weight		22.1 kg	22.6 kg	33.3kg	32.6kg	33.3kg	32.6kg
Payload		6kg	4kg	12kg	14kg	12kg	14kg
Reach		700mm	900mm	1300mm	1100mm	1300mm	1100mm
Max. Speed		1.1 m/s	1.4 m/s	1.3 m/s	1.1 m/ms	1.3m/s	1.1 m/s
Joint Ranges	J1	+ / - 270°					
	J2, J4, J5	+ / - 180°					
	J3	+ / - 155°	+ / - 166°	+ / - 163°	+ / - 166°	+ / - 163°	
	J6	+ / - 270°					
Speed	J1, J2	180° /s	120° /s				
	J3	180° /s					
	J4, J5	225° /s	180° /s	150° /s	180° /s	150°/s	
	J6	225° /s	180° /s				
Repeatability		+ / - 0.05mm		+ / - 0.1mm			
Degrees of Freedom		6 Rotating Joints					
I/O Ports		Control Box	Tool Conn.	Control Box		Tool conn.	
	Digital In	16	3 or 4*	16		4	
	Digital Out	16	3 or 4*	16		4	
	Analog In	2	1	2		1	
	Analog Out	1	0	1		0	
I/O Power supply		24V 1.5A for control box and 24V 1.5A for tool					
IP Classification		IP54 (arm)		IP54			
Power Consumption		Typical 220 watts		Typical 300 watts			
Max. Power Capacity**		Max. 1300 - 1400 watts		Max. 2200 watts		Max. 1500 watts***	
Temperature		The robot can work in a temperature range of 0 to 50°C					
Power Supply		100-240 VAC, 50-60Hz (Reg.) DC24V / 48V (Mobile Model)		100-240VAC, 50-60 Hz		DC 20V-60V	
I/O Interface		3x COM	1x HDMI	3x LAN	4x USB2.0	2x USB3.0	(1x VGA - TM5*)
Certification		CE (regional model), SEMI S2 (option)					
Variation Models		X: without camera; M: Mobile (DC version - TM5 only); SEMI: SEMI S2 certified					
Robot Vision							
Eye in Hand (Built in)		1.2M / 5M pixels, colour camera					
Eye to Hand (Option)		Support maximum 2 GigE cameras					
* By regional model							
** Max. power capacity is the max. output capacity of the power supply system designed in the control box.							
*** Max. capacity can be increased to 2500 watts with an external 1000 watt power supply							





AUSTRALIS
ENGINEERING

The smart choice

Contact us today to
discuss your next cobot
project

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