



**AUSTRALIS**  
ENGINEERING

Smart thinking  
in motion

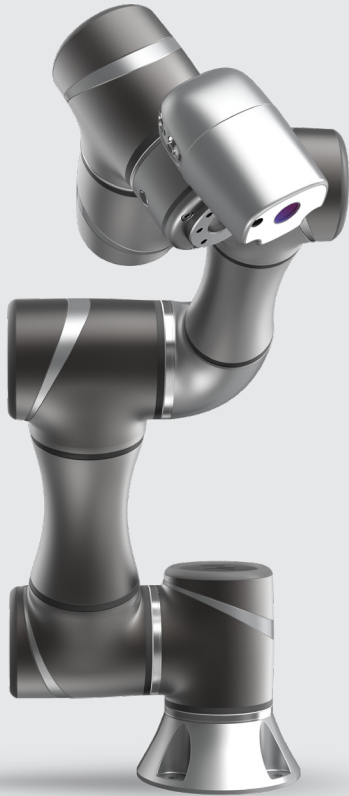
---



## Robotics

Cobots, AGVs and Mobile 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.

### Built-in Vision 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. TM Robot comes with built in vision hardware and integrated vision software with a human machine interface. Functions such as shape matching, barcode & QR code reading, colour recognition, OCR are all easily configured from the integral robot design toolbox.

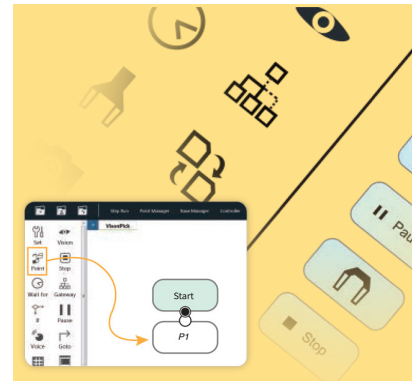
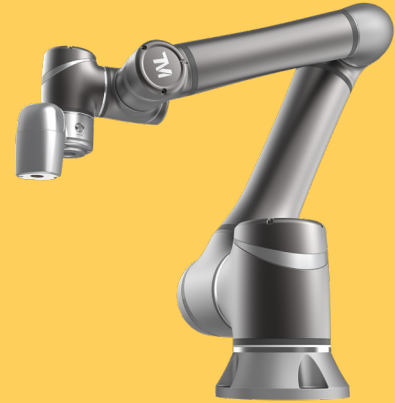
### Safety is our Priority

TM cobots comply 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.



### Official TM Robot Distributor

Australis are official Australian distributors and integrators of TM Robots and are certified to offer Basic and Advanced TM Robot training.



## TM Series cobots

What sets TM Series cobots apart from the industry-standard robot arms is our “Robot Vision.”

TM Series cobots have the ability to sense their environment and people they operate with. This hardware combined with your application makes a smart factory setup easily achievable. By giving cobots ‘eyes’ to see, it creates a world of difference in how they can perform.

TM Robot offer four cobots in the TM Series

- **TM5-700** 6kg payload, 700mm reach
- **TM5-900** 4kg payload, 900mm reach
- **TM12** 12kg payload, 1,300mm reach
- **TM14** 14kg payload, 1,100mm reach

The TM Series cobots are easy to deploy, are highly flexible, are low maintenance and provide a high performance automation solution for manufacturing, distribution, retail, health and service industries.

Additionally, the TM-M series is available for integration with AGV's and mobile robots.

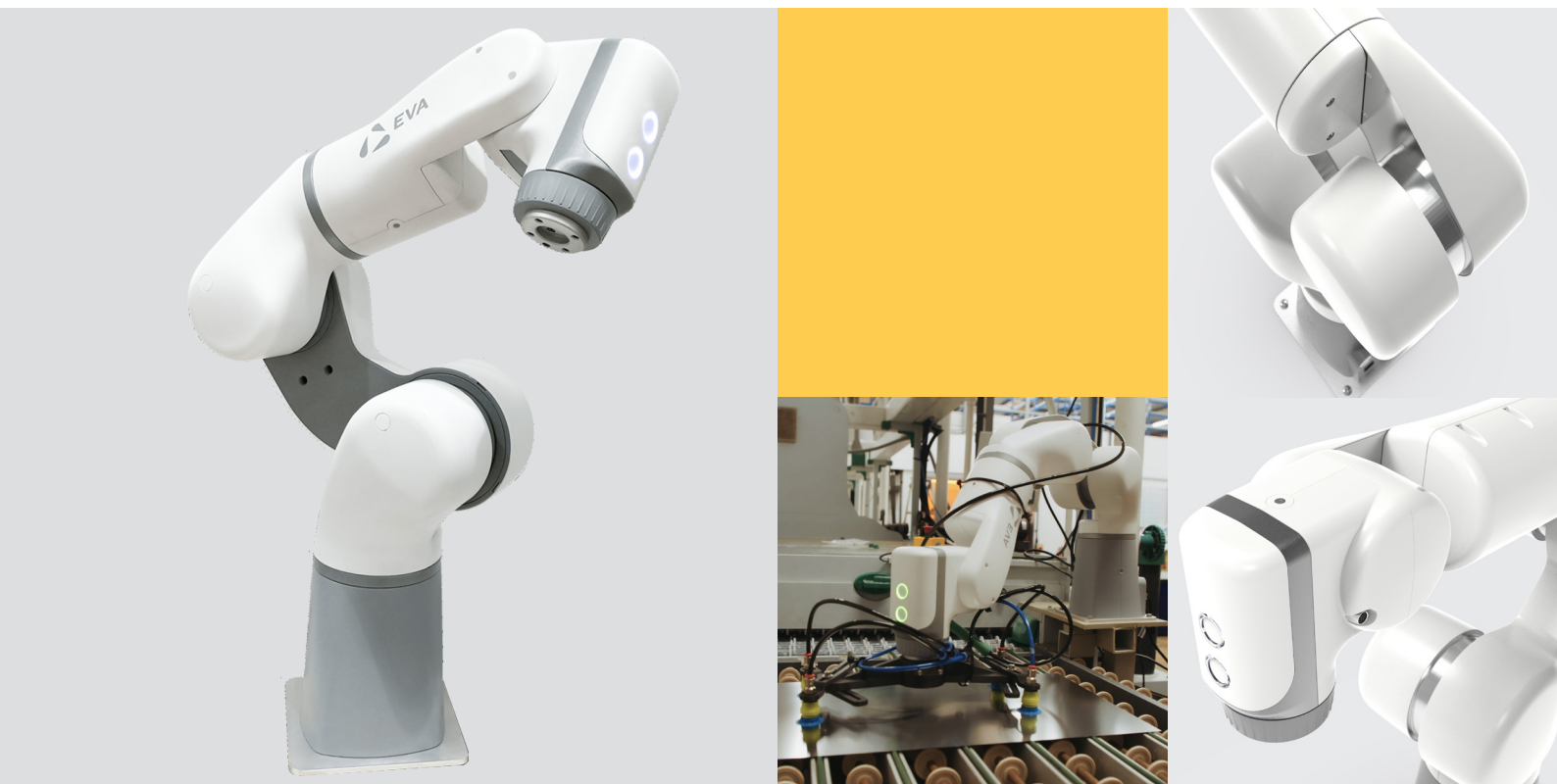
### Industry 4.0 is now

The TM Series features simple programming, innovative integrated vision capabilities together with the latest safety functionality, all leading to rapid deployment in a huge variety of applications, including:

- machine tending
- sorting
- pick & place
- inspection / quality control
- palletising
- retail / service
- packaging
- polishing / deburring

Having vision completely integrated within 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.





# Eva cobot

## Made in the UK

Eva is the simple, low cost collaborative robot engineered and manufactured in the United Kingdom by Automata. Eva is designed to be lightweight, user friendly and accessible to all shop floor workers, retailers, students, academics – Eva is programmable in under 30 minutes.

With its controller integrated within the robot arm and base and weighing just 9.5kg, Eva has a small footprint and is eminently portable, making it ideal for deployment across multiple tasks in your organisation.

Applications include machine tending, sorting, inspection, product testing, quality control, retail, research, education, medical and small parts product assembly. Automate your repetitive tasks to:

- Increase throughput and efficiency
- Reduce production costs
- Free staff from manual tasks
- Remove bottlenecks in production



### Exclusive Australian partner

Australis are the exclusive Australian partners for Automata Technologies - the UK designer and manufacturer of Eva.

## Easy to programme

Eva uses the technology you're already familiar with to talk to you and your equipment. People make all the difference, and Eva is designed to unlock their potential. Teach the robot by hand, then fine tune with Choreograph - our cobot software is as intuitive as a smartphone app, running in your web browser.

- No need for a special computer
- No prior experience with robots necessary
- Expand Eva's capabilities with the REST API or Python SDK
- Use ethernet or WiFi to connect your computer directly to Eva, or add it to your network just like a printer
- Provides 24 V industrial logic: digital and analog inputs and outputs totalling 32 pins

## Specifications in brief

- Degrees of freedom: 6
- Achievable range: 600mm
- Load capability: 1.25kg
- Speed: 750 mm/s (joint speed of 120°/s)
- Repeatability:  $\pm 0.5$  mm
- Enclosure: IP20
- Weight: 9.5kg
- Footprint: 160mm x 160 mm



# Automated Guided Vehicles

## Smart automated guided vehicles with AI

Passion Mobility of Taiwan, develops autonomous technologies to meet the ever-changing needs of automation and materials handling.

Their mobile robots are broadly grouped into two categories, autonomous AGVs that are programmed to perform set-tasks and mobile collaborative robots that are programmed to safely track a person to assist in their task. Their current range of AGVs are the U-kart and T-kart.

U-kart and T-kart are both ideal for order picking in warehouse and dispatch centres. Larger models are ideal for pallet transport.

### U-kart series

- U-kart is an entry level AGV
- Two models are available: U150 with 150kg load capacity and U200 with 200kg load capacity
- Uses smart "Follow & Go" system that tracks in front or behind a person while conducting a task and autonomously returns back to a predefined location at task completion
- Artificial Intelligence (AI) embedded camera vision follow system, plus autonomous coloured tape tracing (U200 only)
- Li-ion Battery 36V 8.8AH

### T-kart series

- T150, T200 and T500 models AGVs follow a pre-programmed path
- Colour tape tracing is the most cost-effective solution for factory, warehousing and logistics automation
- Automated obstacle avoidance
- High adaptability to workplaces (indoor, outdoor, sloping floors)
- Load capacity of 150kg, 200kg or 500kg
- Larger models are ideal for pallet transport
- Li-ion battery with 8 hours operation, 1 min battery swap
- Central control system (optional)
- Auto docking system (optional)

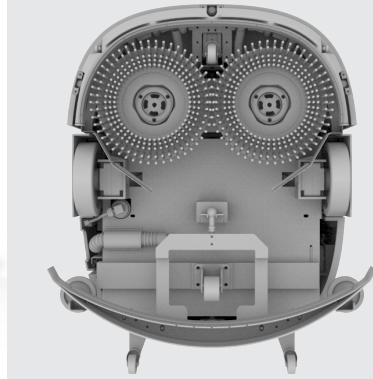
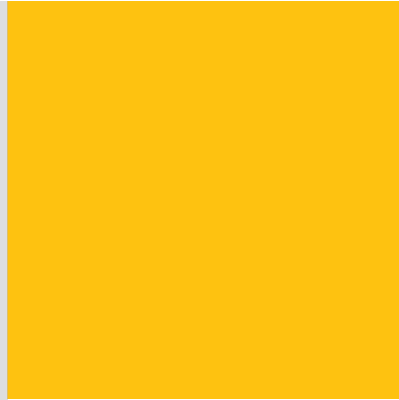
The A-kart "bin carrying" robot will also be available in early 2021.



### Australian partner

Australis are the Australian partners for Passion Mobility automated guided vehicles.





# MAX floor cleaning robot

## Safe, automated industrial floor cleaning

MAX is an industrial floor cleaning robot. MAX is the smartest commercial cleaning floor robot on the market. Once a cleaning schedule is programmed, MAX can run automatically.

MAX is safe, it has 9 sets of sensors and can avoid people, animals and other obstacles. These sensors create a safe environment while people work or interact with the robot. MAX uses a range of sensors to detect its environment and ensure it can avoid obstacles:

- LIDAR sensors
- Infrared sensors
- Ultrasonic sensors
- 3D Vision system
- Pressure sensor bump stop

MAX is smart and easy to operate. It can:

- Define a cleaning area – the User can define the cleaning area by a simple click and circle on a site map
- Define a job site – the User can define different functions for a job site such as a charging station, water exchange station etc

## Applications

MAX is suitable for a large range of floor cleaning applications such as:

- hospitals and medical centres
- hotels
- conference rooms and exhibition halls
- shopping centres
- airports and transport hubs
- warehouses and factories
- schools, universities and colleges
- sports and entertainment arenas and stadiums



## Exclusive Australian partner

Australis are the exclusive Australian partners for the MAX floor cleaning robot.

#### CLEANING WIDTH

60cm

#### OPERATING TIME

Vacuum only: 3.4 hr  
Scrubber only: 2.8 hr  
Vacuum + Scrubber: 2hr

#### CHARGING TYPE

1. Charging Port
2. Swap battery

#### BATTERY

100ah LFP

#### OPERATION MODE

Auto/ Semi-auto

#### WATER TANK

25L Solution tank  
25L Recovery tank

#### EFFICIENCY

900 (m<sup>2</sup>/hr) w/o barrier  
620 (m<sup>2</sup>/hr) w/ barrier



## Vacuum, scrub, clean

The MAX Automated Floor Cleaning Robot has a number of benefits:

- Fits through standard 820mm doorways
- 2 hours run time with vacuum and scrubbing
- Can use a range of cleaning solutions and disinfectants including COVID-19 approved products
- Its front vacuum system collects dust, hair and other debris pre the scrubber unit
- The concentric circle squeegee system ensures that dirty water won't spill out of the unit
- Uses two separate 25L tanks, one for the cleaning solution and one for the waste water
- Artificial Intelligence (AI) system is an autonomous navigation platform allowing MAX to operate in complex real-world environments
- Utilises 9 sets of sensors that can detect and safely avoid people, objects or barriers to its operation
- MAX's scheduling system allows assigning of tasks such as the cleaning area, time of day, duration, task order and cleaning strength
- MAX is suitable for a large range of floor types including Epoxy, Tile, PVC, Cement, Timber and Carpet\*

\* Note, vacuum only recommended on carpeted floors. Users should check suitability for liquid based cleaning on timber floors prior to use.

#### Specifications

- Cleaning width: 60cm
- Suction power: 150W
- Cleaning solution tank capacity: 25 L
- Recovery (waste) tank capacity: 25L
- Cleaning speed: 40cm/s
- Accuracy: +/- 5cm
- Path planning: YES
- Battery capacity: 24V / 100A providing 2 to 3.4 hours run time depending on cleaning mode
- Charging method: Self-charging or battery swap
- Weight: 200kg
- Dimensions: 93 x 80 x 64 cm

Compared to a traditional mop, MAX can save users up to 82% water usage"



**AUSTRALIS**  
ENGINEERING

# The smart choice

---

Contact us today to  
discuss your next  
robotics project

**Australis Engineering Pty Ltd**

ABN 52 002 646 620

Phone: +61 2 9707 5888

Email: [sales@australiseng.com.au](mailto:sales@australiseng.com.au)

25 Harley Cres, Condell Park,

NSW 2200 AUSTRALIA

[australiseng.com.au](http://australiseng.com.au)