TM ROBOT

CLOSING THE GAP™

- ☒ Solve Technical Challenges
- ☒ Overcome Integrating Difficulties
- ☒ Realizing Smart Factory

About Us

Hi! We're Techman Robot.

We are a leading collaborative robot and vision technologies company, dedicated to improving the world of work for businesses and their people through robotic technology applications.

We truly believe the right robotic technology applications can make a world of difference to performance, efficiency and productivity, even creating a lasting positive impact on whole industries. We think that every business should have access to beneficial technology to advance their position.

Therefore, we are determined to use our technological knowledge and skills to create all things smart and simple, to break boundaries, solve challenges, and meet industries' needs.

At Techman Robot, we close the gap for every business.

Our Profile

Established in 2016, **Techman Robot** is the only collaborative robot manufacturer based in Taiwan. We offer collaborative robots with embedded visual systems, software and application-based solutions to the market, through our more than 100 distributors around the globe.

Our company's HQ and streamlined production process are based locally, inside the Hwa Ya Technology Park of Northern Taiwan, covering product research, development, production and manufacturing functions.
We benefit from the global resources of our parent company, Quanta Computer, the world's largest notebook manufacturer. With strict manufacturing and quality control standards in our factories that are verified by ISO9001, ISO14001, ISO10218-1 and ISO/TS15066, Techman Robot is known for delivering excellent products, bearing the reputation of 'Made in Taiwan equals the best quality'.

In just three years after launching the first TM5 robot, we became the world's second-largest collaborative robot brand. We have been rapidly expanding into the international market ever since. Due to the high demand, we expanded our factory in early 2019, increasing our capacity of production and ensuring exceptional production quality. We have also established branches in Shanghai, China, and multiple overseas sales offices located in Changshu, Shenzhen, Chongqing of China, Busan of Korea and Alblasserdam of Netherland, offering our global customers localized service to support their smart manufacturing and automation ventures.

Techman Robot has obtained many patents in Taiwan, the United States, and China, with dozens more currently under review. Our industry-leading collaborative robots have also earned recognition from prestigious awards bodies including the iF Product Design Award, Red Dot Award, Golden Pin Design Award, COMPUTEX d&i Award, and Taiwan Excellence Awards.

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 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.

5 Minutes to achieve a visual pick & place task

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

SMART
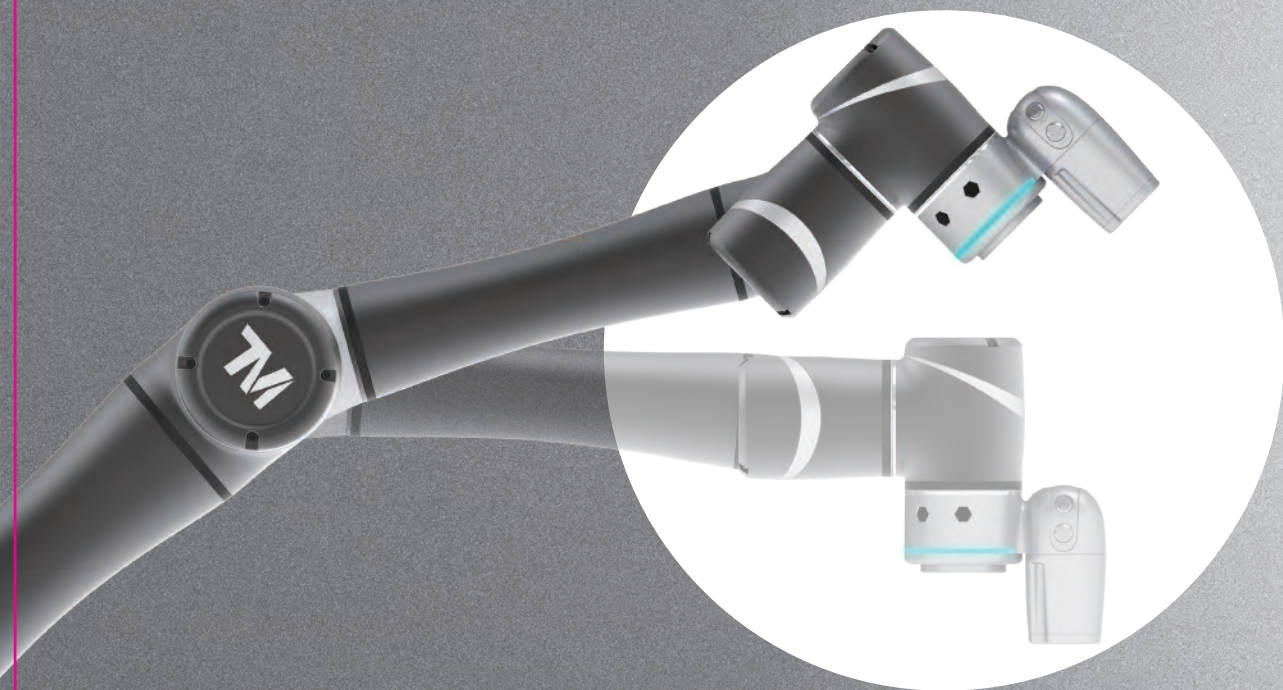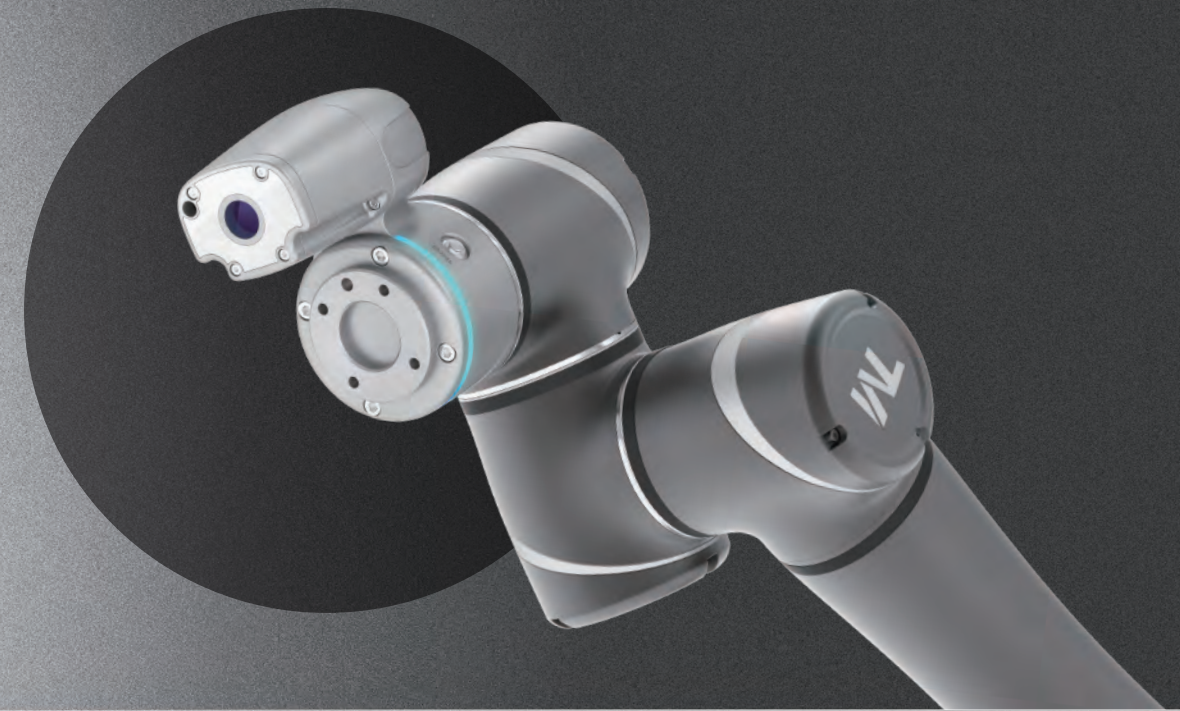
SIMPLE

Revolutionary user interface

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

Hand-guide functionality

Another reason TM Robot is more simple to program than the other modern robots is our 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.

Easy to deploy

Because TM Robot is so simple to program, it is very easily deployed into different applications, reducing your time-to-production and saving your total cost in automation.
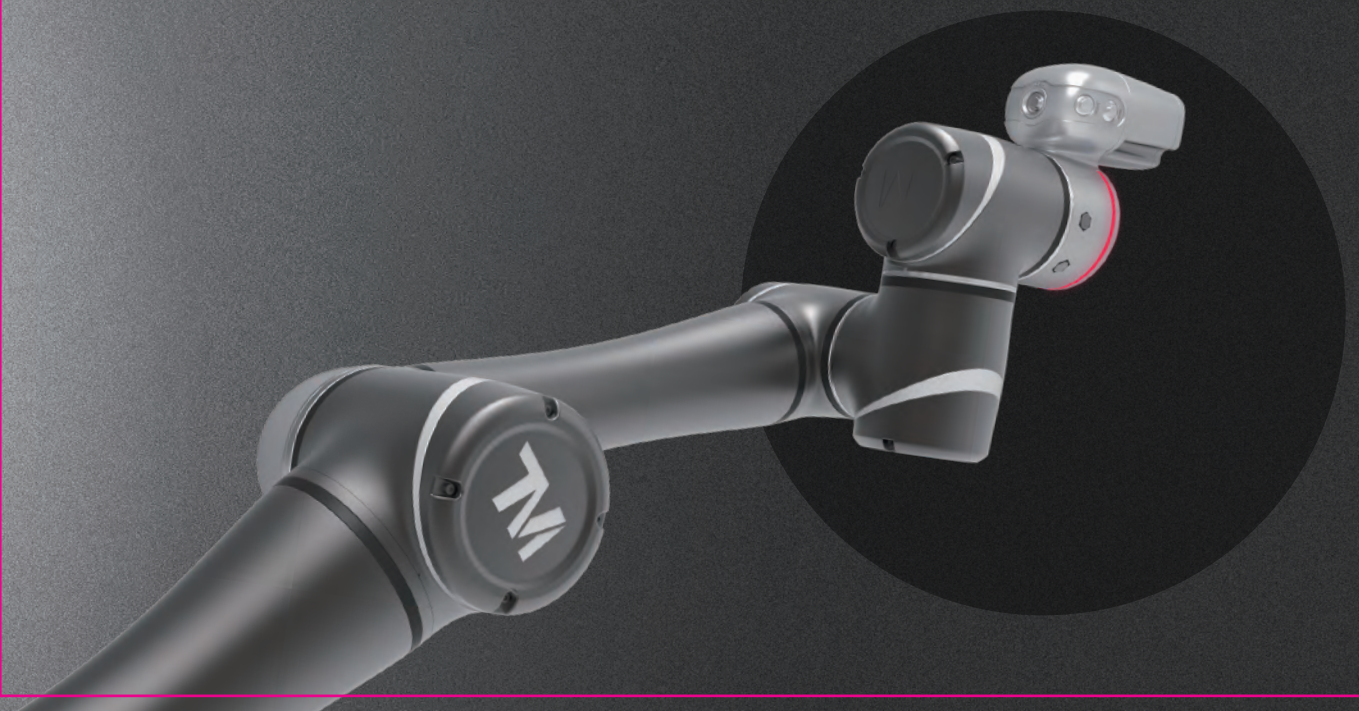
Force limiting

TM Robot complies with the ISO 10218-1:2011 & ISO/TS 15066:2016 human-robot co-operation safety requirements for collaborative robots, allowing the robot to be programmed with both speed and force limits.

Safety is our priority

TM Robot is serious about safety in every aspect of the design of the whole robot system, through hardware, software and operational design.

Ergonomic design

TM Robots are physically designed to be safe to their surroundings, soft end caps and no sharp edges are all part of the collaborative experience.

ISO 10218-1:2011   ISO/TS 15066:2016 $C\epsilon$

SAFE

CLOSING THE GAP™

Techman Robot is aware of the gaps existing in the world of industrial automation. We developed the smart, visual-embedded cobot and a series of software to help enterprises overcome the difficulties, CLOSING THE GAP™ between human-machine and machine-machine, to seize the bright future of Industrial Automation 4.0!
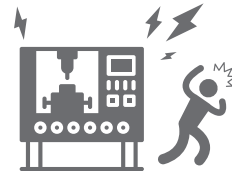
Human-Machine gap caused by safety concerns

▪ Techman Robot

▪ Traditional Robot

Human-machine cooperation ☺

Human-machine separation ☹

Human-Machine gap caused by deploying difficultie

▪ Techman Robot

▪ Traditional Robot

Intuitive and graphical compiling process ☺

Complicated coding process ☹

Human-Machine gap caused by maintenance difficulties

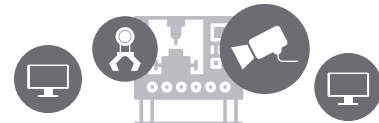▪ Techman Robot
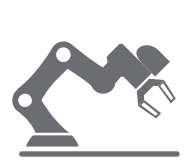
▪ Traditional Robot

Low maintenance costs ☺

High maintenance costs ☹

Machine-Machine gap caused by system integration difficulties

▪ Techman Robot

▪ Traditional Robot

TM 3DVision
TM Plug&Play
TMmanager
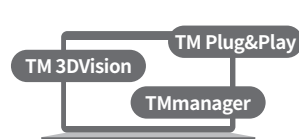
Provide series of SW&HW integrated solution ☺

Required large efforts and cost to integrate different equipment ☹

Significant Costs Reduction

Time Saving
▪ Built-in smart vision system can be directly customized for visual detection, recognition, and positioning applications without spending time on vision system integration.
▪ Peripheral products supplied by TM Plug&Play™ partners allow rapid implementation of automated applications that greatly reduces integration time.

Lower Integration and Equipment Costs
▪ The built-in smart vision system accelerates production processes so there is no need to spend extra money on integrating a third party vision system.
▪ Smart vision can identify the location of objects, eliminating the cost of expensive jigs. This will benefit the current trend of low-volume and high variety production.

Lower Manpower Costs at Every Stage
▪ Reduce the number of engineers needed for preliminary integration of machine vision and workstation processes.
▪ The intuitive user interface of TMflow™ is designed to replace complex program coding, and also allows for manual hand-guide teaching.
▪ Highly intelligent design lowers the overall complexity of automation and reduces after-sales maintenance manpower.

Fulfill Future Trends

▪ Built-in smart vision system enables fast and flexible production line reconfiguration to meet the market's demand for low-volume and high variety production.
▪ TMmanager combined with smart AI decision-making software makes a powerful tool for AI automation. Effective management and analysis of gathered data from robotic arms and factory equipment enables real-time production status monitoring

Significant Costs Reduction

Future Trends in Automation
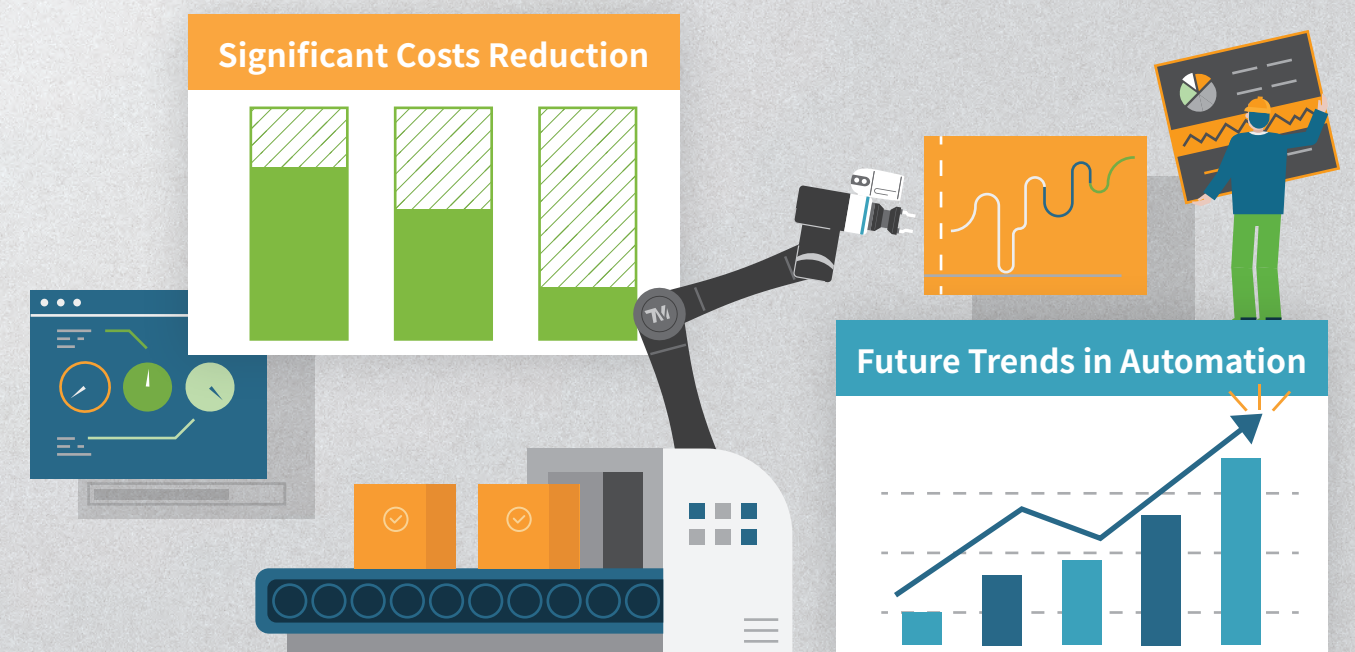
TM Robot Series

The stand-alone cobot solution offers a variety of payload capacities, reach radius, and a mobile series for automated guided vehicle that can satisfy the needs of different types of industry.
Our collaborative robots solutions are designed smart and simple to provide the optimal performance businesses needs, allowing them to be operated with ease, minimizing the efforts of business and accelerating deployment.

TM Robot Series is also available in the SEMI S2 certified version, suitable for semiconductor industry and is also the best choice for automated guided vehicle applications.

- Reach: **700 mm**
- Payload: 6 kg

- Reach: **900 mm**
- Payload: 4 kg

- Reach: 1300 mm
- Payload: **12 kg**

- Reach: 1100 mm
- Payload: **14 kg**

TM5-700 Regular Payload Series
TM5-900

TM12
TM14
Medium-Heavy Payload Series
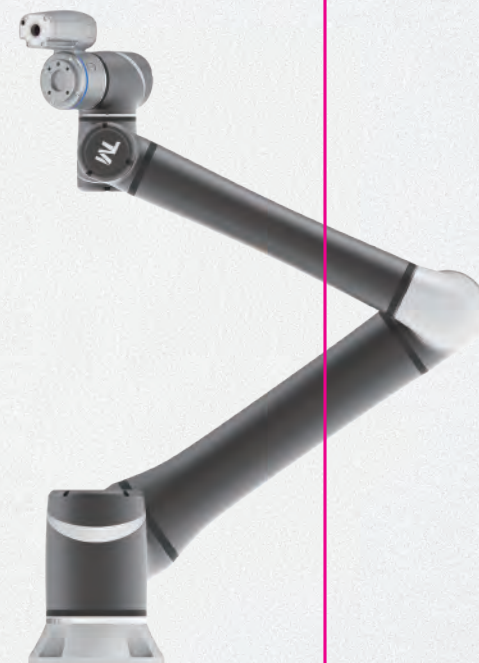
TM5M / TM12M / TM14M
Mobile Series

- The hand, eye, and brain have traditionally been separate systems for traditional industry robots. TM5 has integrated all three into one robot. The built-in vision system allows the robot to identify different objects, carry out self-calibration, and perform visual tasks. The innovative and intuitive user interface and hand-guide teaching mode makes cobots operations as easy as using a mobile phone for operators.

- Our payload capacity exceeds that of other collaborative robots with the same reach on the market. The cobot can move heavy objects weighing up to 12kg (TM12) and 14kg (TM14). The work area of the robot is also expanded due to the long reach radius of the TM12 (1300mm) and TM14 (1100mm).
The ease of use allows for high flexibility and rapid re-configuration of production lines. Reducing the deployment and maintenance costs for automation, greatly increases return on investment and production quality for all industries.

- TM Robot's mobile series can be powered by DC power. The integrated DC power circuitry is compatible with all AGR/MR brands, making it the best combined solution for cobots and AGV machine. The TM Landmark function of the vision system makes accurate positioning easy in 3D, and is suitable to use with mobile palletizing and machine tending applications.