



# TOYO AUTOMATION CO., LTD

FA & ROBOT

Company profile





FA View

Solution

Even since the beginning of automation development in Taiwan, from simple automation processes in the early periods to the current connection with industry 4.0, Toyo has always been present.

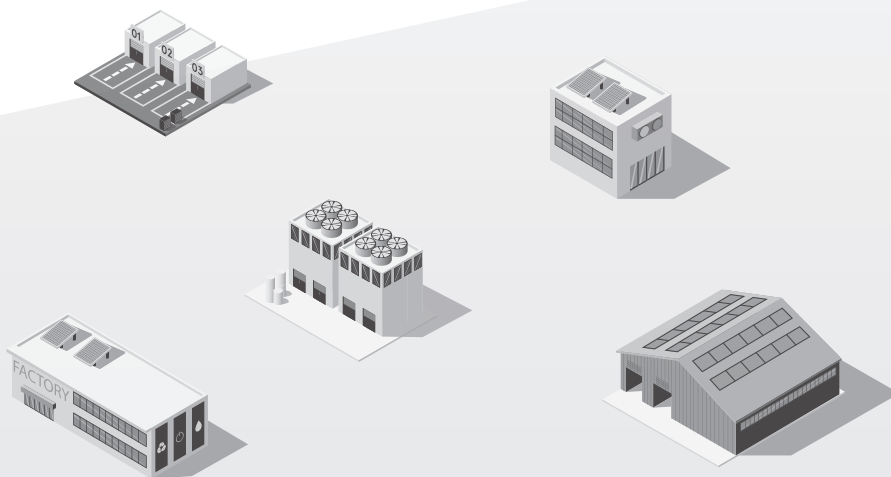
For a long time, we have focused on the development of professional miniature robots, ranging from the simplest control single-axis linear actuator without motor to the complete solution of full motor kits and control systems, all proudly manufactured in Taiwan. We strive to evolve and accommodate to the changes out there on the market today.

The market of small robotic arms requires rapid innovation and the notions to **"Discover Demands"** and **"Change Voluntarily"** are the original intentions that we have always kept. Change voluntarily has always been our core belief and the driving force that pushes our company forward.

At Toyo, we handle our customer's requests with care. For different manufacturing procedure from each industry, TOYO has always focus on how to shorten cycle time and reduce machine down time during product development.

Through energy saving, reduction of wiring, servo motor integration and other improvements, more values were added to automation equipment manufactured in Taiwan.

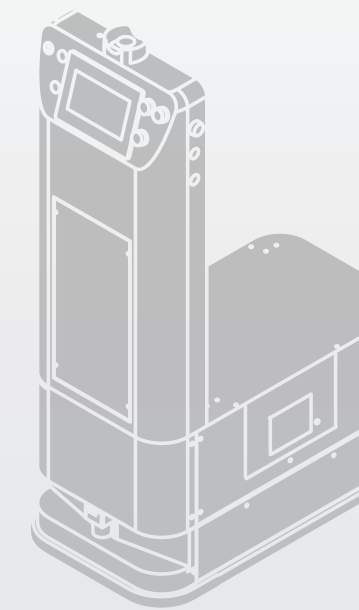
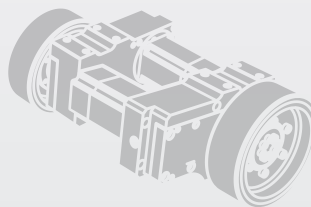
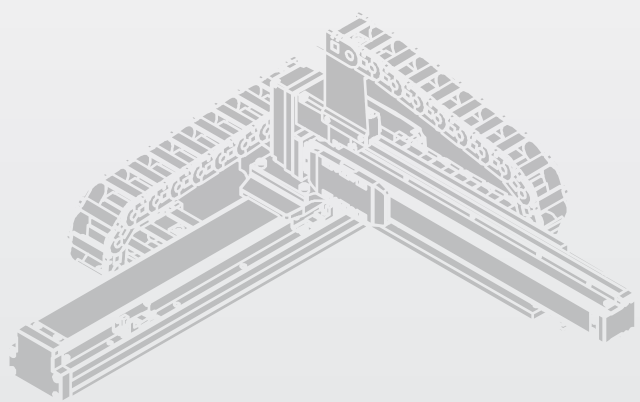
The philosophies of Toyo have always been **"Product Evolution"** , **"Stable Quality"** and **"Seek Excellence"** . We sincerely hope that Toyo can exceed your expectations and become the partner that will grow with your business.



# FA &



**Continuous  
Evolution  
on Automation**



# ROBOTS

# Line up

## 6 Major Products of Linear Drive

Through continuous research and development effort, Toyo is able to accommodate the automation requirements for all types of manufacturing processes. An assortment of linear servo cylinder with/without controller system and automatic guided vehicle system included, sums up to a total of thousands of product types. Accuracy positioning and speed control enables linear movement or pick-up/release operations.



⊕ High price-performance ratio

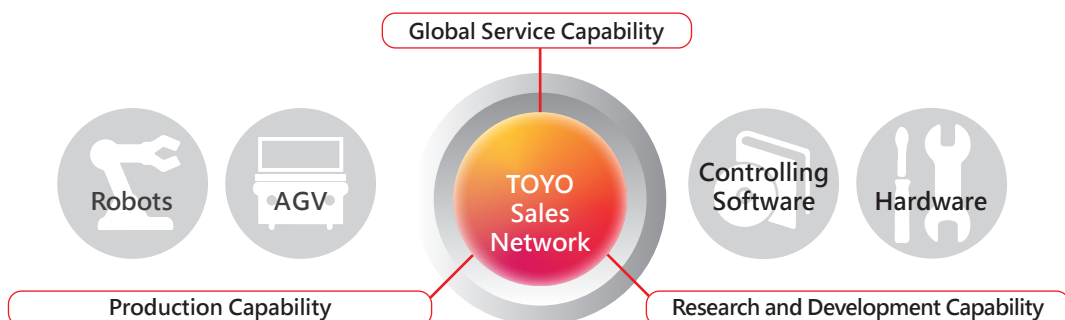
⊕ Flexible customization

⊕ Short delivery time

⊕ Stable quality

⊕ Versatile product line

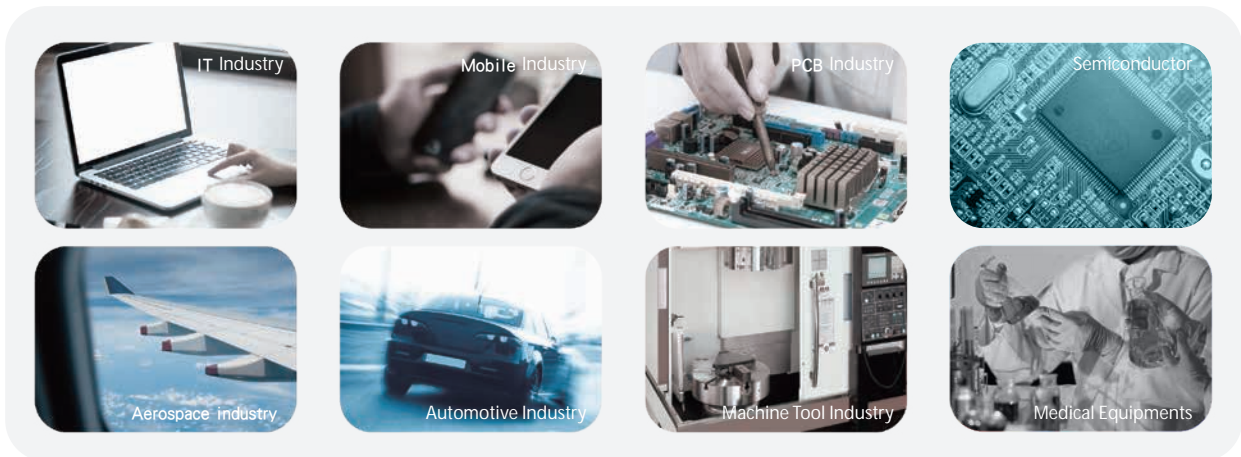
## Operational strategy



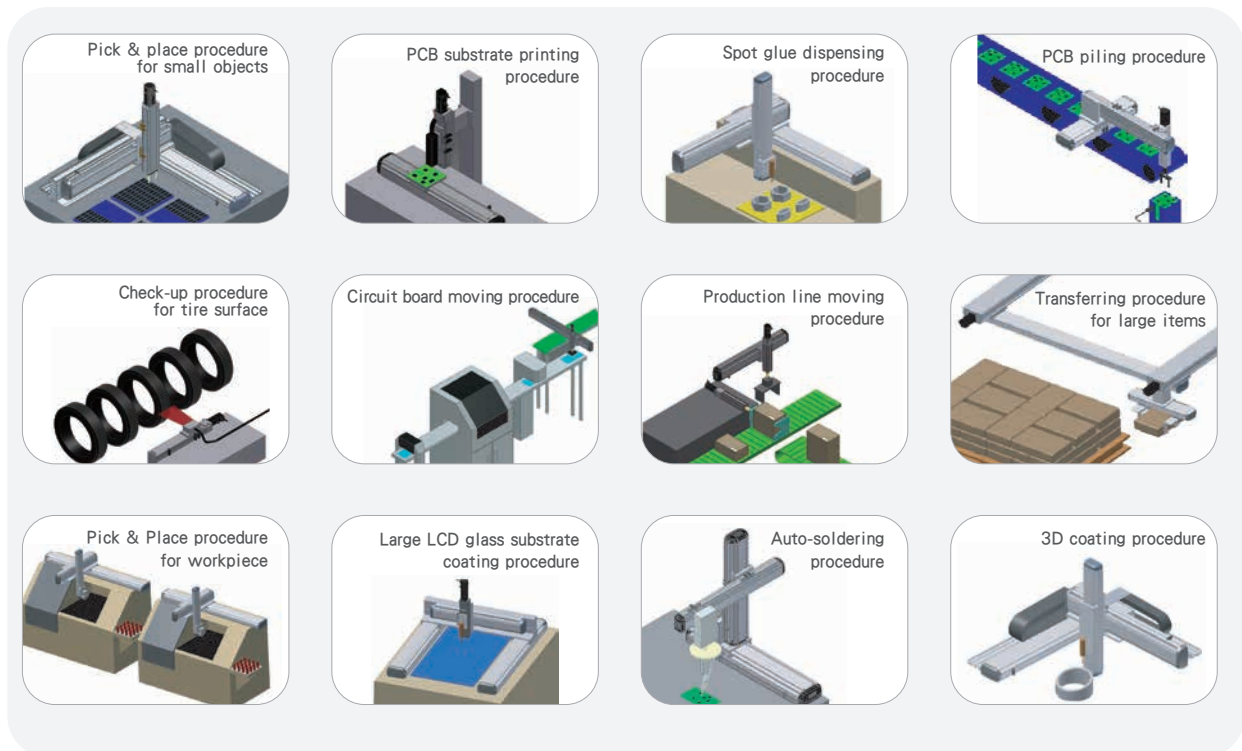
# Application

## Industry Application

Examples of Toyo automatic robot technology application can be seen in all types of manufacturing processes that relates to people' s daily life. Including industries such as medical, food products, computer, mobile phones, automotive and aerospace. We have continuously developed and introduced modern linear drive automatic robots that aims to solve the issues of insufficient labor forces and wage increases that the global manufacturing industry is facing today. Based on your needs, we provide the best products that enriches your life.



## Manufacturing Process Application



# Basic Information

## Company Profile

Company Name	TOYO Automation Co., Ltd.
Chairman of board	Mr. Johnny Lin
Employees	400
Established On	2000
Registered Capital	NTD\$220,000,000
Address	No. 55, Xinji 3rd Rd., Annan Dist., Tainan City 709, Taiwan.
Telephone	+ 886-6-2021347
Fax	+ 886-6-2025974
Website	www.toyorobot.com



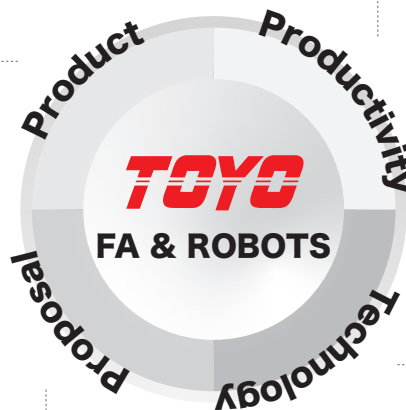
Tainan headquarters



From automotive to machine tool, 3C electronics, food and medical supplies, the use and application of automatic robots are versatile and broad. Since Toyo began to manufacture and sell robots with control systems in Taiwan, it has **improved value of domestic supply chain with market leading product development.**



Corresponding to various market demand, Toyo manufacturing system has evolved into a flexible model that accommodates to the customer's demand, **with 60% of manufacturing line catering to customize productions.** While maintaining high quality, low cost and short delivery time in mind, we also adjust our production lines to match the customer's demands.



When new manufacturing procedure and products are being developed, upgrades and adjustments to the equipment are generally required. **Toyo is capable of providing the best automation proposal that best fits your need,** by listening to the functionalities and qualities that you demand, improvements on previous engineering affords, reduction of work station and energy, plus lowering manufacturing cost.



Conceptualized from the idea to satisfy the customer's demand for products with high rigidity, Toyo is able to develop various techniques that improve the structure of our linear actuators. Changes to the design of current control system are also made to make it easier for the user. **There are currently over 20 patents, trademarks and models registration owned by Toyo.**



## Service System



### Free sample machine for lending

Standard sample tester available for lending to the customer at no cost! Please contact your local sales representative or distributor.

Free



### Exhibition

Exhibitions are organized in order for the customer to understand more about our products. Please contact us for more information.



### 24 hours online services

Year round 24 hours on call service that provides product solutions anytime you call for the region of China and Taiwan.

24 Taiwan : 0800-800-893

24 China : 400-875-0009

Free



### Exhibition car

For the customer in Taiwan to experience and understand our products, we have established the Toyo Exhibition car project. Please contact us for more information.

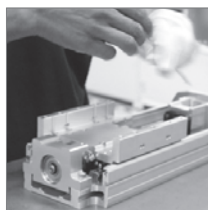
Free



### Sharing of technical tips

We host product seminars/technical workshops to share our most advanced technologies with our customers.

Free



### Inspection, Repairment

We provide the inspection and repairment service. Even the warranty period has expired, we will provide repairment services with reasonable cost.



### Training Center

In the training center, you can see the actual product and the demo machine. Also, we provide training on various technologies imported into the robot, technical consultation, and related courses. Please contact us for further information.



### Worldwide Sales Network

Completed distribution network and after-sales service sites are established. For further details, please contact the relevant regional distributors.

## Quality System

### Quality Assurance Certification



ISO 9001 ISO 14001 OHSAS 18001

Passed ISO9001, ISO14001 and OHSAS18001 international certification.

### Patented Technologies



#M398055 #M429543 #M440838 #M523013 #M523014 #M523015



#M523016 #M523017 #M534739 #M523019 #M523018 #I530627



Patent applications certified by the Intellectual Property Office of Ministry of Economic Affairs.

### Awards



Got 9th Taiwan Business Startup Award



Got 19th Taiwan Business Rising Star Award



CGTH/CGTY Series  
Got 2018 Taiwan Excellence Awards



LGF / CHY Series  
Got 2021 Taiwan Excellence Awards



LGW Series  
Got 2021 Taiwan Excellence Awards



CPSG/LM4 Sreies  
Got 2023 Taiwan Excellence Awards



LBT/LXY/SRT Sreies  
Got 2024 Taiwan Excellence Awards

# Toyo Product Lineup



10 days delivery time for standard products. Please contact your local sales representative for products with special requirements.

Taiwan : 0800-800-893  
China : 400-875-0009

## Single-axis Linear Actuator (Without motor)

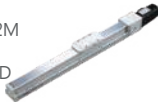
Compatible with motors manufactured by other brands

Built-in linear guide-ways: slider type

### GTH

Ballscrew type

GTH3/4/5/8/12/12M  
GTH5S/8S  
GTH4D/5D/8D/12D  
GTH3K/4K/5K/8K



Built-in linear guide-ways: rod type

### GTY

Ballscrew type

GTY4  
GTY5  
GTY8  
GTY12



Standard slider type

### ETH2

Ballscrew type

ETH2-14 ETH2-14D  
ETH2-17 ETH2-17D  
ETH2-22 ETH2-22D  
ETH2-30 ETH2-30D



Push rod screw slide

### Y

Screw drive

Y50 Y43  
Y50D/L Y62  
Y65 YH95  
Y65D/L



Standard type

### ETB

Belt Type

ETB14M  
ETB17M  
ETB22M



European type

### M

Belt Type

MH65/80  
MK65/85/110  
MG50/65/85



Clean-room type

### ECH2

Ballscrew type

ECH2-14 ECH2-14D  
ECH2-17 ECH2-17D  
ECH2-22 ECH2-22D



Clean-room type

### ECB

Belt Type

ECB14  
ECB17  
ECB22



Built-in linear guide-ways clean-room: slider type

### GCH

Ballscrew type

GCH4 GCH12  
GCH5 GCH5S  
GCH8 GCH8S



Built-in linear guide-ways clean-room: Rod type

### GCY

Ballscrew type

GCY4  
GCY5  
GCY8  
GCY12



## Single-axis Linear Actuator (Without motor)

Compatible with motors manufactured by other brands

### ETK/ENK

Gear drive

ETK15 ENK15  
ETK22 ENK22  
ETK30 ENK30



### GLTH/GLTB

Ballscrew type Belt Type

GLTH3/5/8/12 GLTB5  
GLTH5D/8D GLTB8  
GLMH5/8  
GLTH5M/8M



## Multi-axis Actuator (Without motor)

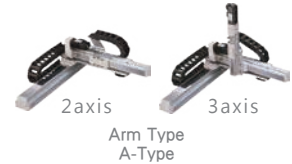
Compatible with motors manufactured by other brands

Built-in Linear Motion Guide

### XYGT

Ballscrew type

XYGT210-A XYGT440-A  
XYGT320-A XYGT321-A  
XYGT430-A XYGT432-A



Mult Axis Ball screw Type

### XYTH

Ballscrew type

XYTH650-A  
XYTH760-A  
XYTH870-A  
XYTH876-A



XYTH760-G  
XYTH870-G  
XYTH876-G



XYTH650-P  
XYTH760-P  
XYTH880-P  
XYTH886-P



XYTH760-F



Mult Axis Belt Type

### XYTB

Belt Type

XYTB650-A  
XYTB760-A  
XYTB870-A  
XYTB876-A



XYTB870-G  
XYTB876-G



## Servo Cylinder

The best option for pneumatic cylinder replacement

### Closed-loop stepping motor

Built-in Guideway Cylinder-Slide Type

### CGTH

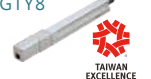
CGTH3/4/5/8  
CGLTH3/4/5/8



Built-in Guideway Cylinder-Rod Type

### CGTY

CGTY4  
CGTY5  
CGTY8



Built-in Guideway Cylinder-Cleanroom Type

### CGCH

CGCH3  
CGCH4  
CGCH5  
CGCH8



High rigidity miniature cylinder

### CSG

CSG20  
CSG25  
CSG35



Electric Gripper

### CH

CHZ2-S10 CHS2C-S20  
CHZ2-S14 CHS2C-S40  
CHZ2-S22 CHS2C-S68  
CHS2B-S20 CHY2B-S80  
CHS2B-S40 CHY2B-S150  
CHS2B-S68



### Hollow servo motor

Built-in Guideway Cylinder-Slide Type

### DGTH

DGTH3  
DGTH4  
DGTH5



Built-in Guideway Cylinder-Rod Type

### DGTY

DGTY4  
DGTY5



Mini Cylinder

### DM

DMG25  
DMG40  
DMH25  
DMH40



### Economical electric cylinder

High rigidity micro electric cylinder

### CPSG

CPSG20  
CPSG25  
CPSG35



Mini electric cylinder - screw slide type

### CPGLTH

CPGLTH5  
CPGLTH8



Mini electric cylinder - belt slide type

### CPGLTB

CPGLTB5  
CPGLTB8



Push rod screw slide

### CPY

CPY43  
CPY62





# Toyo Product Lineup

TOYO ROBOT  [www.toyorobot.com](http://www.toyorobot.com)

Free member registration

2D/3D images download

Real time model selection software

24 Taiwan : 0800-800-893  
24 China : 400-875-0009

## Linear Motor Robot

High speed, high acceleration/deceleration, dual carriage

Built-in linear guide-ways type linear motor robot

**LGF**

Clean Room Type  
LGF5  
LGF15



Built-in linear guide-ways type linear motor robot

**LGTW/LGNW/LGCW**

Clean Room Type  
LGTW20 LGCW20  
LGTW35 LGCW35  
LGNW20  
LGNW35



With iron-core flat type linear motor robot

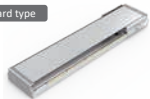
**LTF3/LNF3/LCF3**

Standard type Closed type Clean Room Type  
LTF3-15/30/75  
LNF3-15/30/75  
LCF3-15/30/75



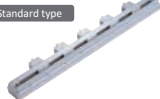
Iron core linear motor  
**LTF3-250**

Standard type



Multi-drive Linear Shaft Motor Robot  
**LM6**

Standard type



Mini Electric Linear Motor Slides  
**LZ**

Standard type



Electric Linear Motor Slides  
**LSC3**

Standard type



## Single Robot

3 highly reliable and trustworthy specifications

Built-in Linear Guide Robot-Rod Type

**SGTY**

Ballscrew type  
SGTY4 SGTY8  
SGTY5 SGTY12



Built-in Linear Guide Robot-Slide Type

**SGTH/STH**

Ballscrew type Servo Motor

SGTH4 STH17  
SGTH5 STH22  
SGTH8 SGTH12M  
SGTH12 STH17M  
STH22M



## Rotary series

Suitable for visual alignment

Electric spline

**CSL8**  
Stepping Motor



Rotary electric cylinder

**CRC**  
Stepping Motor

CRC-7  
CRC-9  
CRC-11



Coming Soon

Rotary Cylinder

**SNT**  
Servo Motor

SNT85  
SNT130



Coming Soon

High-precision harmonic hollow rotating platform

**SRT**  
Servo Motor

SRT85  
SRT95  
SRT110



## Cartesian Coordinates Robot

Gantry, cantilever, polar coordinates, cross shaped and more

Ball-screw-driven Desktop Robot

**JTHX**

JTHX-200  
JTHX-300  
JTHX-400  
JTHX-500  
JTHX-500D

Ball-screw-driven Desktop Robot

**JTHS**

JTHS-300  
JTHS-400  
JTHS-500  
JTHS-500D



Ball-screw-driven Desktop Robot

**JTHC**

JTHC-200  
JTHC-300  
JTHC-400  
JTHC-500  
JTHC-500D

Ball-screw-driven Desktop Robot

**JTHD**

JTHD-200  
JTHD-300  
JTHD-400  
JTHD-500  
JTHD-500D



Ball-screw-driven Cartesian Robot

**XYCGT**  
Stepping motor

XYCGT320  
XYCGT321



Ball-screw-driven Cartesian Robot

**XYSGT**  
Servo motor

XYSGT430  
XYSGT432



## Robot specific controllers (1 ~ 4 axis)

High performance control system

Servo Motor Controller

**TC/XC/LC/SC/SD**

TC100  
XC100  
LC100  
SC100  
SD100  
XC200



4 axis Controller

**TSC**

TSC400  
TSC400S



## Automatic Guided Vehicle

MES compatible to achieve industry 4.0

Basic Type AGV Unit  
**MP-BS90S**



Basic Type AGV Unit  
**PL-BS90M**



Basic Type AGV Unit  
**PD-BS90M**



Servo Controller  
**IPC**



AGV System  
**MPcart**



AGV System  
**MultiV**

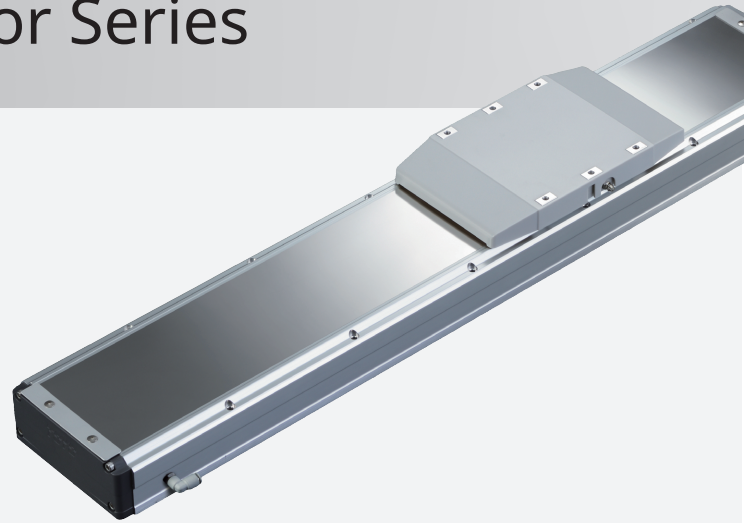


AGV System  
**Pcart**



# 01

# Electric Actuator Series



## Single-axis Linear Actuator

Without motor



Ball Screw Drive










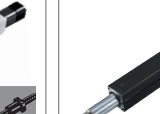
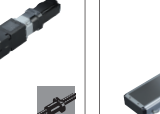




Belt Drive



Clean Room



Built-in Guideway

Built-in Guideway Ball Screw Actuator	GLTH Series	GTH Series	GTY Series	GCH Series	GCY Series	Max. Payload		
							110 kg	
	Repeatability $\pm 0.005\text{mm}$	Repeatability $\pm 0.005\text{mm}$	Repeatability $\pm 0.01\text{mm}$	Repeatability $\pm 0.005\text{mm}$	Repeatability $\pm 0.01\text{mm}$			
	50~2500 mm	50~2200 mm	50~800 mm	50~1250 mm	50~800 mm			Stroke Range
Ball Screw Standard Actuator	ETH2 Series	Y Series	YH95/Y95 Series	ECH2 Series	Max. Payload			
						150 kg		
	Repeatability $\pm 0.005\text{mm}$	Repeatability $\pm 0.01\text{mm}$	Repeatability $\pm 0.01\text{mm}$	Repeatability $\pm 0.005\text{mm}$				
	50~2100 mm	50~500 mm	50~800 mm	50~1800 mm			Stroke Range	
Belt Drive Standard Actuator	GLTB Series	ETB Series	M Series	ECB Series	Max. Payload			
						85 kg		
	Repeatability $\pm 0.06\text{mm}$	Repeatability $\pm 0.04\text{mm}$	Repeatability $\pm 0.1\text{mm}$	Repeatability $\pm 0.04\text{mm}$				
	50~3000 mm	50~3500 mm	50~5000 mm	50~4050 mm			Stroke Range	

# Multi-axis Linear Actuator

Without motor



Ball Screw Drive



Belt Drive



Clean Room



Built-in Guideway



Built-in Guideway  
Ball Screw Cartesian Robot

### XYGT Series



Repeatability  $\pm 0.005$ mm

10 kg

Max. Payload

1250×550×350 mm

Stroke Range

Ball Screw Cartesian Robot

### XYTH Series



### XYCH Series



X · Y · Z axis Repeatability  $\pm 0.05$  mm

22 kg

22 kg

Max. Payload

1500×1050×550 mm

1500×1050×550 mm

Stroke Range

### Combination



Arm Type  
A-Type



Gantry Type  
G-Type



Polar coordinate  
P-Type



XY Type  
F-Type

Belt Type Cartesian Robot

### XYTB Series



### XYCB Series



X · Y axis Repeatability  $\pm 0.04$  mm

22 kg

22 kg

Max. Payload

3500×750×550 mm

3500×750×550 mm

Stroke Range

### Combination



Arm Type  
A-Type



Gantry Type  
G-Type



Polar coordinate  
P-Type



XY Type  
F-Type

# 02

# Servo Cylinder Series

## Servo Cylinder

With motor & controller

 Ball Screw Drive  
 Closed-Loop Stepping Motor  
 Clean Room  
 Built-in Guideway

 Closed-Loop Stepping Motor Control 127 Points  
 Position Control LD/OC  
 Pulse Control LD/OC  
 Communication Control RS485  
 Input Voltage DC24V

 New EtherCAT  
 TC100 Controller  
 Built-in controller



TC100 Controller	Built-in Guideway Cylinder	CSG Series	CGTH Series	CGTY Series	CGCH Series	Max. Payload	Stroke Range
		 Repeatability $\pm 0.01$ mm 12.8 kg 30/50/75/100/125 mm	 Repeatability $\pm 0.005$ mm 30 kg 50~1250 mm	 Repeatability $\pm 0.01$ mm 30 kg 50~800 mm	 Repeatability $\pm 0.005$ mm 30 kg 50~1250 mm		

TC100 Controller	Electric Gripper	CHZ2 Series	CHS2B Series	CHS2C Series	Built-in controller	Controller Built-in Electric Gripper	CHY2B Series	Max. Gripping Force	Max. Open-Close Stroke
		 Repeatability $\pm 0.02$ mm 278 N 22 mm	 Repeatability $\pm 0.01$ mm 509 N 68 mm	 Repeatability $\pm 0.01$ mm 509 N 68 mm			 Repeatability $\pm 0.05$ mm 90/30 N 80/150 mm		

Built-in controller	Built-in Cylinder	CPSG Series	CPGLTH Series	CPGLTB Series	CPY Series	Max. Payload	Stroke Range
		 Repeatability $\pm 0.01$ mm 12 kg 30/50/75/100/125	 Repeatability $\pm 0.005$ mm 30 kg 50~650 mm	 Repeatability $\pm 0.06$ mm 2 kg 50~1500 mm	 Repeatability $\pm 0.01$ mm 50 kg 50~700 mm		

# Servo Cylinder

With motor & controller



Ball Screw Drive



Servo Motor



Clean Room



Built-in Guideway



Servo Motor



Position Control  
127 Points



Pulse Control  
LD/OC



Communication Control  
RS485



Input Voltage  
DC24V



LD/OC  
separated to  
reduce noise

New  
EtherCAT



XC100 Controller



SC100 Controller

		DGTH Series	DGTY Series	DMG Series	DMH Series	
XC100 Controller	Mini Cylinder					
		Repeatability ±0.005mm	Repeatability ±0.01mm	Repeatability ±0.01mm	Repeatability ±0.01mm	
		30 kg	30 kg	15 kg	15 kg	Max. Payload
		50~800 mm	50~600 mm	50/75/100mm	50/75mm	Stroke Range
SC100 Controller	High rigidity manipulator					
		Repeatability ±0.005mm	Repeatability ±0.005mm			
		110 kg	150 kg			Max. Payload
		50-2200 mm	50-2200 mm			Stroke Range

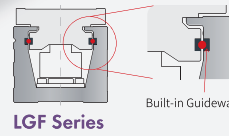
# 03

# Linear Motor Robot Series





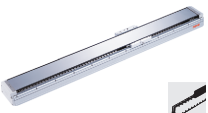

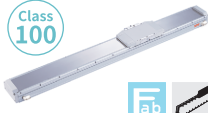

## Linear Motor Robot

With motor & controller

 Linear Motor Drive  
 THK LM Guide  
 Clean Room  
 Built-in Guideway



LC100 Controller

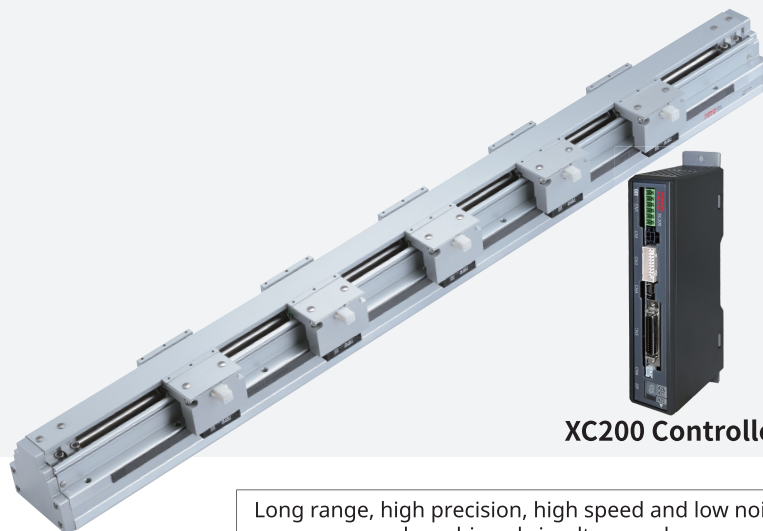
Built-in Guideway Linear motor Robot	LGTW Series	LGNW Series	LGCW Series	LGF Series	Max. Payload Stroke Range	
						
	Repeatability $\pm 0.002\text{mm}$	Repeatability $\pm 0.002\text{mm}$	Repeatability $\pm 0.002\text{mm}$	Repeatability $\pm 0.002\text{mm}$		
	20~70 kg	20~70 kg	20~70 kg	15 kg		
	200~3000 mm	200~3000 mm	200~3000 mm	160~2500 mm		
Flat Type Linear Motor Robot	LTF3 Series	LNF3 Series	LCF3 Series	Iron Core Linear Motor Module	LTF3-250 Series	Max. Payload Stroke Range
						
	Repeatability $\pm 0.002\text{mm}$	Repeatability $\pm 0.002\text{mm}$	Repeatability $\pm 0.002\text{mm}$		Repeatability $\pm 0.002\text{mm}$	
	120 kg	120 kg	120 kg		250 kg	
	202~4688 mm	202~3053 mm	202~3053 mm	300~5000 mm		

# Linear Motor Robot

With motor & controller



Linear Motor Drive



**XC200 Controller**

**Multi-drive Linear Shaft Motor Robot**

**LM6 Series**



TAIWAN EXCELLENCE 2023


Repeatability  $\pm 0.002\text{mm}$

6 kg Max. Payload

250~1270 mm Stroke Range

**Electric Linear Motor Slides**

**LSC Series**



Repeatability  $\pm 0.002\text{mm}$

6 kg (Horizontal) Max. Payload

60/90/120/150 mm Stroke Range

**Mini Electric Linear Motor Slides**

**LZ Series**

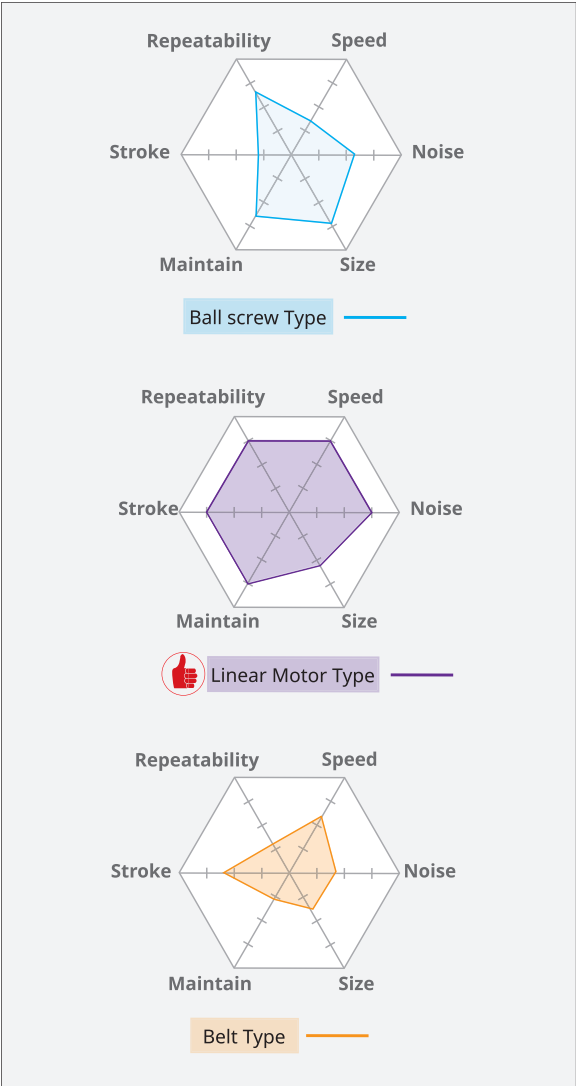


Repeatability  $\pm 0.002\text{mm}$

1.9 kg Max. Payload

13~40 mm Stroke Range

Long range, high precision, high speed and low noise can be achieved simultaneously.



# 04

## Desktop Robot Series

### Desktop Robots



ballscrew drive



Max. stroke 500-500mm



Max. speed 1000mm/s



Z axis payload 8Kg



Built-in controller TSC400



repeatability  $\pm 0.005$  mm



100 sets of programs



10000 points

Optional double X axis



R-axis style optional (JTHS series only)



**Economical desktop robot**

**JTHC**



**JTHD**



X.Y.Z axis : Repeatability  $\pm 0.01$  mm

X : 12 Z : 6 kg

X : 10 Z : 5 kg

Max. Payload

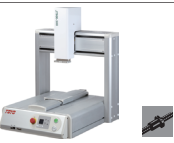
X.Y : 200/300/400/500 mm  
Z : 100 mm

X.Y:150/250/350/450 mm  
Z : 100 mm

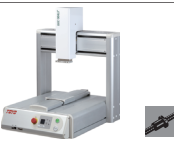
Stroke Range

**Standard desktop robot**

**JTHX**



**JTHS**



X.Y.Z axis : Repeatability  $\pm 0.01$  mm

X.Y.Z axis : Repeatability  $\pm 0.005$  mm

X : 10 Z : 5 kg

X : 15 Z : 8 kg

Max. Payload

X.Y : 150/250/350/450 mm  
Z : 100 mm

X.Y : 300/400/500 mm  
Z : 100 mm

Stroke Range

**Applications**

**Soldering**



**Dispensing**



**Screw fastening**



**Visual inspection**





## Desktop Robots



ballscrew drive



Max. stroke  
1250-500mm



Max. speed  
1000mm/s



Z axis  
payload  
12Kg



Built-in  
controller  
TSC400



repeatability  
 $\pm 0.005$



100 sets  
of programs

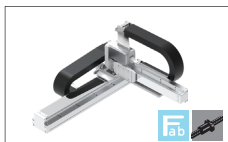


10000  
points

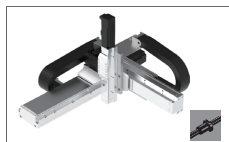


Ballscrew drive Cartesian desktop robot

**XYCGT**



**XYSGT**



X.Y.Z axis Repeatability  $\pm 0.005$  mm

Z:5.5 kg

Z:12 kg

Max. Payload

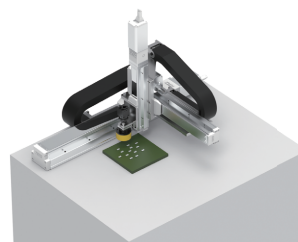
1100×300×100 mm

1250×450×100 mm

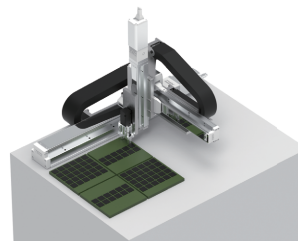
Stroke Range

### Applications

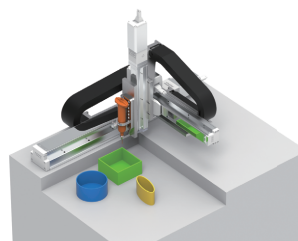
CCD Machine Vision Inspection



Pick-and-place for Small-sized Workpieces



Dispensing for Small-sized Workpieces

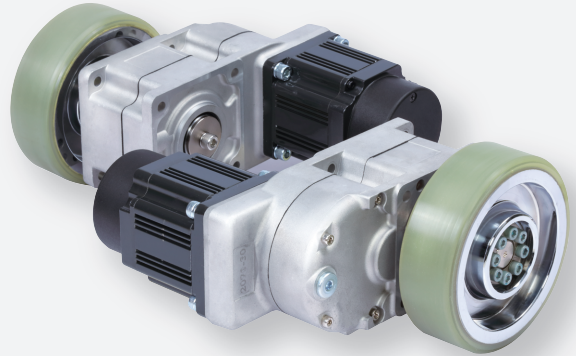


# 05

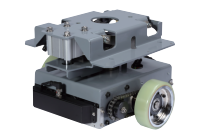
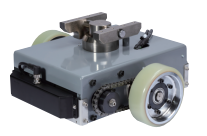
## Automatic Guided Vehicles

### AGV Drive Kit

With motor & controller



Drive Kit	<b>PL Series</b>	<b>MultiV Series</b>	
			
	DC24V/DC48V	DC48V	Battery Voltage
	400 kg	300 kg	Max. Payload
	3~45 m/min	1~60 m/min	Max. Speed

Drive Kit	<b>MP Series</b>	<b>MP Series</b>	
			
	DC24V/DC48V	DC24V/DC48V	Battery Voltage
	350 kg	350 kg	Max. Payload
	3~40 m/min	3~40 m/min	Max. Speed

**Controller**



**IPC**






# Automated Guided Vehicle

With motor & controller



AMR	<b>MultiV Series</b>	<b>Pcart Series</b>	<b>Pcart Series</b>	<b>Pcart Series</b>	
					
	DC24V/40AH	DC24V/40AH	DC24V/40AH	DC24V/40AH	Battery Voltage
	300 kg	100 kg	300 kg	5 kg	Max. Payload
	1~60 m/min	3~45 m/min	3~30 m/min	3~45 m/min	Max. Speed

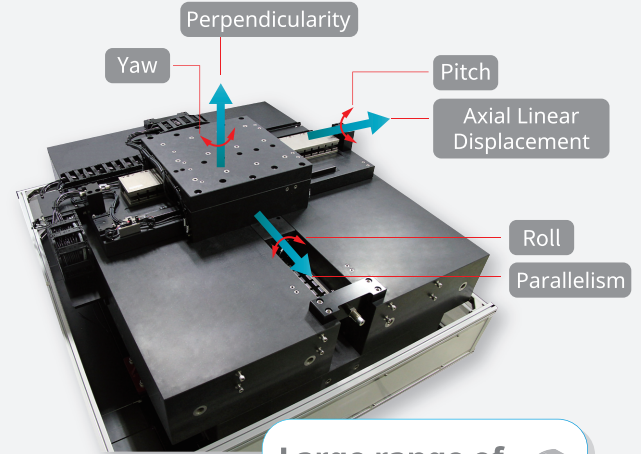
AMR	<b>MPcart Series</b>	<b>MPcart Series</b>	<b>MPcart Series</b>	
				
	DC24V/40AH	DC24V/40AH	DC24V/60AH	Battery Voltage
	700 kg	100 kg	900 kg	Max. Payload
	3~45 m/min	3~45 m/min	3~45 m/min	Max. Speed

AGV	<b>Pcart Series</b>	<b>Pcart Series</b>	<b>Pcart Series</b>	
				
	DC24V/40AH	DC24V/40AH	DC24V/40AH	Battery Voltage
	300 kg	200 kg	200 kg	Max. Payload
	3~45 m/min	3~45 m/min	3~45 m/min	Max. Speed

# 06


## Air Bearing Linear Stage

### Air Bearing Linear Stage

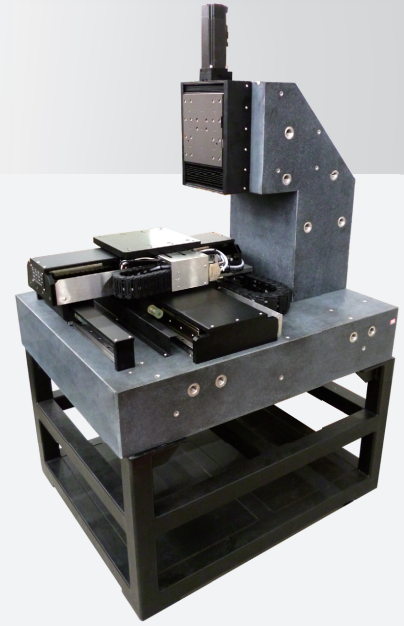


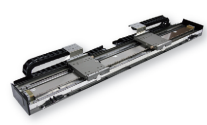
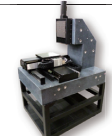


Large range of motion, high precision **6**

Air Bearing Stage	<b>Single Axis</b>	<b>Dual-axis Direct-drive</b>	
			
	400mm	1200mm	Stroke
	<1μm	<1μm	Repeatability
	<2μm	<3μm	Flatness /straightness
Air Bearing Stage	<b>XYZ Multi-axis Direct-drive</b>	<b>XYZR Multi-axis Direct-drive</b>	
			
	200*200*100mm	500*500*100mm	Stroke
	<1μm	<1μm	Repeatability
	<2μm	<5μm	Flatness /straightness


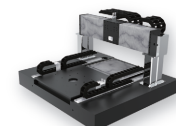
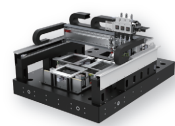
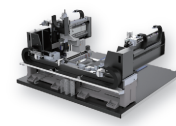
Brand	Air Bearing Type	Design	Module Components	Assembly & Maintenance	Load Capacity	Stiffness
Other Brand	(Air Pad)	Complex	More and complex	Hard and time-consuming	low	Average
<b>TOYO</b>	Built-in Air bearing (TOYO)	Simple	Fewer and simple	Quick and easy	High	High 

## Nano-level linear motor stage

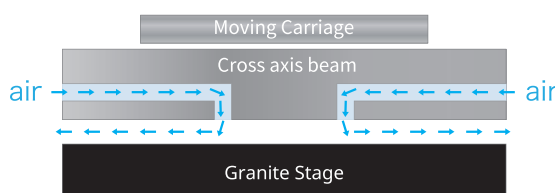


Linear Motor Stage	Dual motor stand linear stage	X-Y-Z linear stage	X-Y linear stage	Gantry X-Y-R stage	
					Stroke
	500mm	300*300*100mm	300*300mm	450*450mm	Repeatability
	<1μm	<1μm	<1μm	<1μm	Flatness /straightness
	<8μm	<3μm	<3μm	<5μm	

Linear Motor Stage	Gantry stage	Gantry X-Y stage	Gantry X-Y-Z stage	Gantry X-Y-Z stage	
					Stroke
	1600*1200mm	600*600*100mm	1000*700*40mm	500*500*100mm	Repeatability
	± 1μm	<1μm	± 1μm	<1μm	Flatness /straightness
	± 10μm	<8μm	<10μm	<5μm	

### Advantages of Air Bearing Stage



Structure of Air Bearing

- Nozzles are built-in to the active faces of the high-precision components
- High stiffness and High load capacity
- Streamlined design featuring fewer components
- Achieves high mechanical precision through specialized geometric design
- Optimized multi-axis precision
- Long-term reliability and stability

# Company History

## Operation Progress

SRT/LBT/LXY series products won the 2024 Taiwan Excellence Award  
Established multiple overseas sales companies:  
North American Company (California, USA)/  
Indian Company (Pune)/Japanese Company (Tokyo)  
Established Korean factory (Gyeonggi-do)  
Cooperated with CKD to establish electric cylinder production line in Thailand factory

CPSG/LM4 series products won the 2023 Taiwan Quality Award  
Dongyouda's Korean subsidiary was established

This Linear motor module LGW series won the Taiwan excellence award.  
Construction of Factory 2 at the Xingji Factory Complex has begun.

Gripper CHY series won Taiwan excellence Product Award  
Linear motor robot module LGF series won Taiwan excellence Product Award

Thailand warehouse established  
In response to the epidemic first to hold global Online exhibition  
The first to launch YouTube Online seminar

Xinji factory completed  
Establish TOYO Robot (Thailand)  
Establish TOYO Robot (Japan)  
Become strategic partner with YAMAHA

Obtain Taiwan Excellence Award

Received the 19th "Raising Start Award" award for outstanding export vendor  
Acquired 5000 ping of land inside Hsin Chi Industry Park

Acquired patent for new M534739 AGV  
Passed ISO14001 certification

Fukuoka Fab in Japan established  
Suzhou Fab in China established

Overseas sales network increased to 10 distributors  
Started OEM production for CKD Japan

Acquired patent for new model M429543  
Acquired patent for new actuator model M440838  
Entered Apple's supply chain officially  
Acquired OHSAS 18001:2007 certification

New fab in Yongkang Technology Park completed and activated  
Became official cooperating technical partners with Matsumoto Shouten Co., Ltd of Japan.  
Raw Material Barcode Management System implemented  
Passed ISO9001 certification

Second branch in China established – Wuxi Toyo Automation Co., Ltd.  
Quality Assurance Center established.  
Acquired 3D inspection equipment  
Acquired Republic of China Patent number M398055  
IE ERP Enterprise Resource Planning system implemented

Approved by the Ministry of Economic Affairs for "Tax Exemption Reward for Crucial Technology Firms"  
Honored with the 9th Business Startup Award  
"Silver Medal" from the Ministry of Economic Affairs

First branch in China established – Shenzhen Toyo Automation Co., Ltd.  
Processing Department established

First participation of Taipei exhibition  
Marketing Department established for improvement of product promotion

TOYO company established

ECON company established

## Product Progress

2024 The first in Taiwan: the new Low profile built-in guideway actuator GLTH / GLTB

2023 The only original product in Taiwan: Nano air bearing Throttle components are directly embedded in high-precision components

2022 Development and mass production of hollow motors, screws, and multi-axis controllers TSC400. The product has successfully entered the national epidemic prevention equipment-nucleic acid testing machine.

2021 Developed and mass-production of the CSL8 series spline modules  
Leading in the industry to launch a desktop robot full ballscrew drive  
Single-axis controller with built-in EtherCAT module  
Leading in the industry to launch a dust-free series of electric grippers

2020 Developed and mass-production of the CHY series of large-stroke built-in controller electric grippers

2019 The globally unique built-in type linear motor module officially mass-produced

2018 DM series officially mass-produced  
XC100-controller of DC Servo Motor officially mass-produced

2017 Cart Series of AGVS officially released.  
Drive Unit Series of AGVS officially released.

2016 Development of TC100- controller of servo motor completed  
The only G series track embedded actuator developed and mass produced in Taiwan

2015 Servo cylinder officially released  
Development of Servo stepping motor controller TC100 completed

2014 Accumulated production output for AGV exceeded 200 units  
Develop of 4 axis horizontal multi-joint robot completed

2013 Accumulated production output for single axis robot exceeded 60,000 units  
Accumulated production output for Cartesian robot exceeded 5,000 units  
High speed linear motor actuator officially on sale

2012 Development of first AGV system completed  
Accumulated production output for positioning platform XYY exceeded 150 units

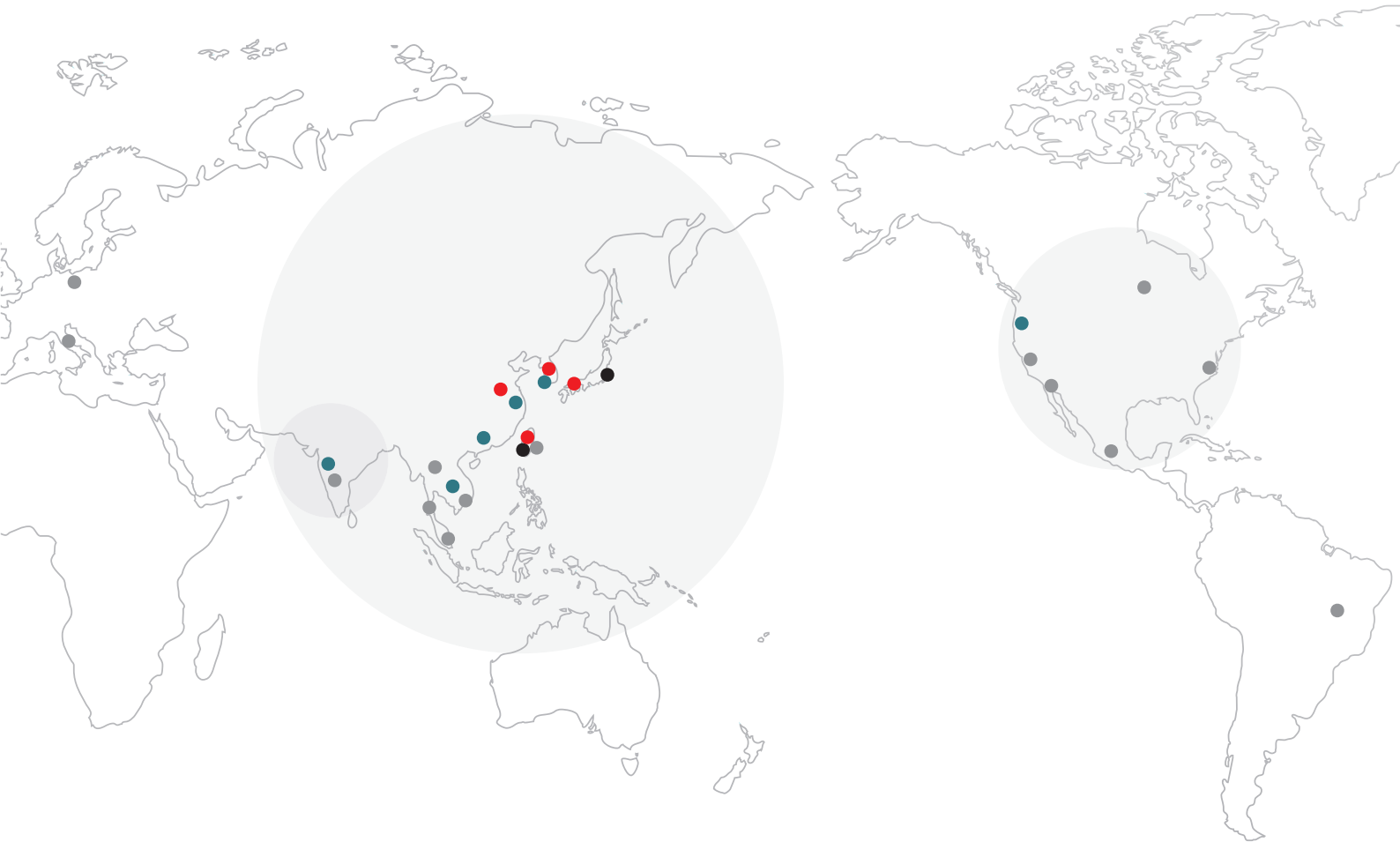
2011 Accumulated production output for Cartesian robot exceeded 1,000 units  
Accumulated production output for single axis robot exceeded 20,000 units  
Development of high speed linear motor actuator completed

2010 Accumulated production output for single axis robot exceeded 5,000 units  
Development of single axis robot exceeds 30 specifications  
Production of positioning platform XYY series officially started

2009 Development of Cartesian multi-axis robot completed  
Production of single axis robot officially started  
Development of single axis industrial use robot completed

2008 }  
2000 Distribute logistics and gripper-related automation components  
Distribute relative robots

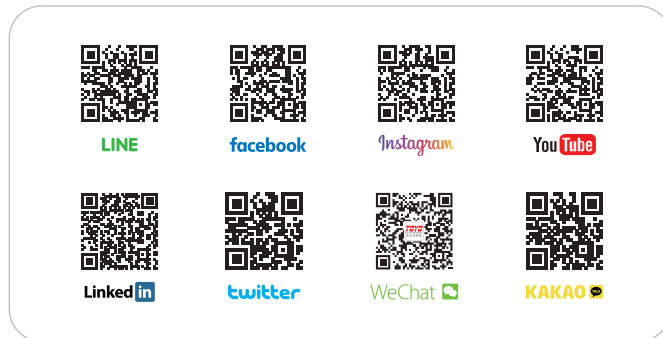
# Global Services



	Taiwan	China	Japan	South East Asia	Korea	Europe	America	India
Production Fab	●	●	●	●	●			
Overseas Branches	●Global headquarters	●Shuzhou ●Shenzhen	●Tokyo	●Thailand	●Korea		●	●
Technology Center	●		●		●			
Distributor	●	●	●	●	●	●	●	●

TOYO Global Network

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