

TOTAL SOLUTION PROVIDER FOR SMART FACTORY



SMART PROGRESSION · SMART PERFORMANCE · SMART PROFESSION



INNOBIZ
INNOBIZ Association

ISO 9001

KOSDAQ

About us

SP SYSTEMS designs, manufactures, and supplies industrial gantry robots and factory automation systems tailored to customer requirements. In automobiles, 2nd batteries, construction, shipbuilding, and defense industries among others, the company develops and provides customized solutions based on the characteristics of each industrial sector.

In particular, SP SYSTEMS secures orders for logistics automation systems that operate 24/7, offering turnkey solutions encompassing design, installation, and commissioning. This capability has enabled the company to build strong customer trust by consistently delivering optimized systems in the shortest possible timeframe.

SP SYSTEMS will continue to uphold its management philosophy of prioritizing customer satisfaction, based on the SP spirit of 'Smart Progression', 'Smart Performance', and 'Smart Profession'.



History

- 1988. 05** Established in Busan, Republic of Korea
- 1988. 06** Technical agreement with CIMCORP
- 1995. 10** New headquarters and research institute construction (Busan)
- 1997. 05** Gantry robot linear movement module development
- 1997. 08** CE Mark certification (Auto Banding System),
Establishment of a corporate-affiliated research institute
- 1999. 09** Partnership agreement with ABB
- 2000. 11** Quality management system certification (ISO 9001 / KS A 9001)
- 2001. 01** Certified as a venture company
- 2001. 12** Opened a new factory in Yangsan
- 2002. 08** Designated as an INNO-BIZ (technology-innovative SME)
by the Ministry of SMEs and Startups
- 2005. 03** ERP(Enterprise Resource Planning) Implementation
- 2005. 07** Selected as a government-funded research institute for robot R&D projects
- 2009. 03** Developed medium-duty linear guide systems and
constructed equipment for mass production
- 2010. 05** Selected as a KOTRA Guaranteed Brand company,
CE Mark certification (multi-axis linear module)
- 2013. 01** Selected as a Global Small Giant company by the Ministry of SMEs and Startups
- 2013. 05** Acquired KCS (Korea Certification for Safety)
- 2014. 12** Established a local subsidiary in China (SP Qingdao)
- 2015. 11** Constructed a second factory in Yangsan, Gyeongsangnam-do
- 2016. 04** Designated as an INNO-BIZ (technology-innovative SME)
by the Ministry of SMEs and Startups
- 2016. 12** Designated as an incubated company
by the Gyeongnam Center for Creative Economy & Innovation
- 2017. 01** Opened Seoul office
- 2018. 01** Designated as an Excellent Employment Company by Gyeongsangnam-do,
Designated as Hyundai Motor Group's "Partner of the Year"
- 2019. 08** Listed on the KOSDAQ
- 2020. 01** Designated as Youth-friendly Small Giant Company
- 2020. 05** Designated as 'Global Small Giant Company' by the Ministry of SMEs and Startups,
Signed a dealership agreement with 'Doosan Robotics'
- 2021. 05** Secured the majority shares of MICUBE Solutions Co., Ltd.
- 2021. 12** Environmental management system certification (ISO 14001),
Selected as one of the "National Representative 1000 Innovative Companies"
by the Ministry of SMEs and Startups
- 2023. 08** MICUBE Solution Co., Ltd. listed on the KOSDAQ
- 2024. 04** Designated as 'Global Small Giant Company +1,000'
by the Ministry of SMEs and Startups



Gantry Robot Standard Type

1-Axis Gantry Robot (UL-TYPE)

- A single-axis gantry robot utilizing a 1-axis linear module, capable of transporting loads of up to 400 kgf.

Maximum Effective Payload [kgf]								
Type	60	80	100	120	150	200	250	400
UL - 1	150							
UL - 2	200							
UL - 3	400							



2-Axis Gantry Robot (TL-TYPE)

- A double-axis gantry robot utilizing a multi-axis linear module for linear movement in dual axes (Horizontal: X / Vertical: Z), capable of transporting loads up to 300 kgf.

Maximum Effective Payload [kgf]								
Type	30	40	60	100	120	150	200	300
TL - E	30							
TL - 1	60							
TL - 2	150							
TL - 3	300							



3-Axis Gantry Robot (CL-TYPE)

- A triple-axis gantry robot utilizing a multi-axis linear module for 3D movement along three axes (Horizontal: X, Y / Vertical: Z), capable of transporting loads up to 300 kgf.

Maximum Effective Payload [kgf]								
Type	20	40	60	100	120	150	200	300
CL - 1	60							
CL - 2	150							
CL - 3	300							



Motor Speed	Unit	UL - 1	UL - 2	UL - 3
		X axis	X axis	X axis
Max Nominal Speed	m/s	2.6	3	3.3
Max Acceleration	m/s ²	3	4.5	4.5
Gearbox Ratio	-	3 : 1	3 : 1	3 : 1
Motor Speed	rpm	4,500	3,000	3,000
Repeatable Precision	mm	±0.05		

Classification	Unit	TL - E		TL - 1		TL - 2		TL - 3	
		Xaxis	Zaxis	Xaxis	Zaxis	Xaxis	Zaxis	Xaxis	Zaxis
Max Nominal Speed	m/s	3	2.5	2.6	2.6	3	3	3.3	3.3
Max Acceleration	m/s ²	4	3	3.5	6	3.5	5	4	3
Gearbox Ratio	-	3 : 1	4 : 1	3 : 1	3 : 1	3 : 1	3 : 1	3 : 1	3 : 1
Motor Speed	rpm	3,000	3,000	4,500	4,500	3,000	3,000	3,000	3,000
Repeatable Precision	mm	±0.05							

Classification	Unit	CL - 1			CL - 2			CL - 3		
		Xaxis	Yaxis	Zaxis	Xaxis	Yaxis	Zaxis	Xaxis	Yaxis	Zaxis
Max Nominal Speed	m/s	2.6	2.6	2.6	3	3	3	3.3	3.3	3.3
Max Acceleration	m/s ²	3.5	2	6	3.5	1	5	4	1	3
Gearbox Ratio	-	3 : 1	3 : 1	3 : 1	3 : 1	3 : 1	3 : 1	3 : 1	3 : 1	3 : 1
Motor Speed	rpm	4,500	4,500	4,500	3,000	3,000	3,000	3,000	3,000	3,000
Repeatable Precision	mm	±0.05								

Track Motion Standard Type

Overhead Type (TMS-O)

- As a linear module that applied roller blocks and guide tracks for heavy weights, it moves industrial multi-joint robots in a straight direction to perform the role of expanding its area of work.
- It is installed at the factory ceiling unlike the floor type to retain the existing strengths and the strengths of gantry robots. Can be used in a wider variety of fields.

Maximum Effective Payload [kgf]

Type	200	400	600	1,000	1,500	2,000	2,500
TMS - O1				620			
TMS - O2					1,000		
TMS - O3						1,800	

Classification	Unit	TMS - O1			TMS - O2			TMS - O3		
Max Nominal Speed	m/s	3.3	2.5	1.6	3.3	2.2	1.6	2.6	2.2	1.6
Max Acceleration	m/s ²	8	7	6	4	3	2	4	3	2
Gearbox Ratio	-	3	4	6	4	6	8	5	6	8
Motor Speed	rpm	3,000								
Repeatable Precision	mm	±0.05								



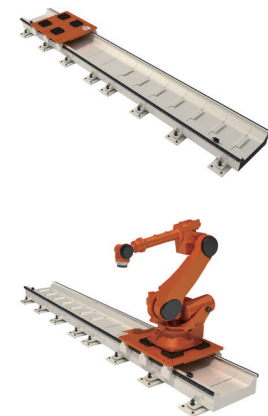
Floor Type (TMS-F)

- As a linear module that applied roller blocks and guide tracks for heavy weights, it moves industrial multi-joint robots in a straight direction to perform the role of expanding its area of work.
- Installed at the floor of the factory, it can perform various tasks such as product transport, assembly, welding, etc. in a wide using 1 robot.

Maximum Effective Payload [kgf]

Type	200	400	600	1,200	2,800	3,400	4,000
TMS - F1					1,300		
TMS - F2						2,300	
TMS - F3							3,600

Classification	Unit	TMS - F1			TMS - F2			TMS - F3		
Max Nominal Speed	m/s	3.3	2.5	1.8	3.3	2.2	1.6	2.6	2.2	1.6
Max Acceleration	m/s ²	8	7	6	8	7	6	4	3	2
Gearbox Ratio	-	3	4	6	4	6	8	5	6	8
Motor Speed	rpm	3,000								
Repeatable Precision	mm	±0.05								



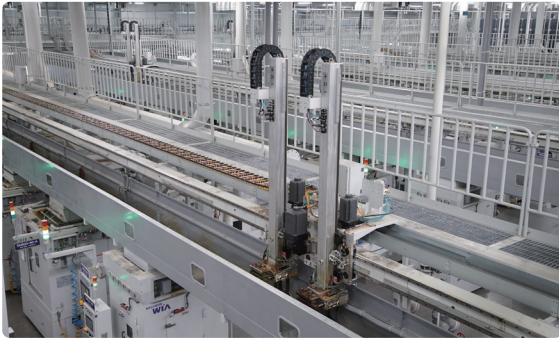
Customized Special Production

In addition to standardized specifications based on payload capacity, customized specifications can be provided to meet customer requirements.



Gantry Robot Automation Solution

Part Processing Line



Target Items

Automotive part and
Other



Products & Technologies Applied

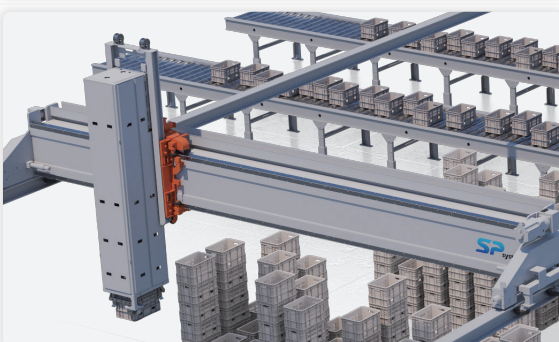
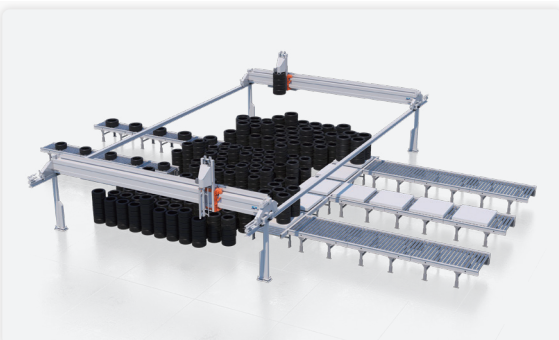
2-axis Gantry Robot,
Dedicated gripper,
Logistics automation system



Applicable Fields

Entire industrial sectors utilizing
machine tools

Gantry Robot Automated Warehouse



Target Items

Tires, P-BOX, and
Others



Products & Technologies Applied

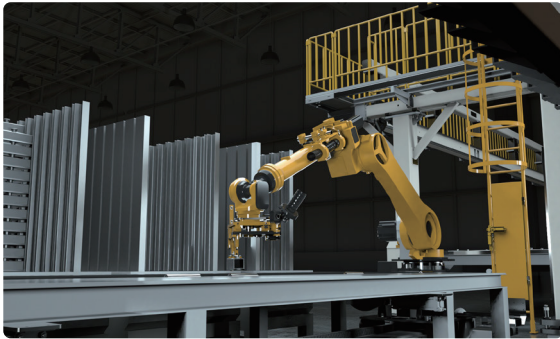
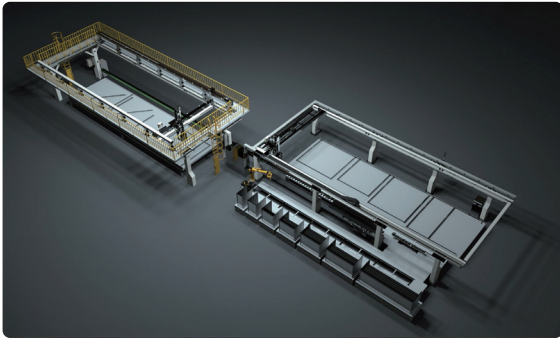
3-axis Gantry Robot,
Dedicated gripper,
Telescopic system,
WCS(Warehouse Control System)



Applicable Fields

Comprehensive logistics for flat-stacked items,
such as tires and square boxes.

Precast Concrete Manufacturing Automation



Target Items

Shutters for PC manufacturing



Products & Technologies Applied

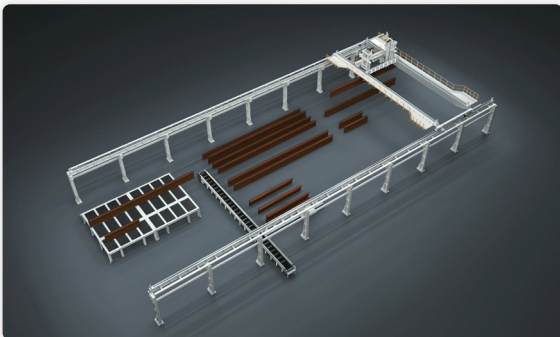
3-axis Gantry Robot,
Dedicated gripper,
Drawing information
conversion system



Applicable Fields

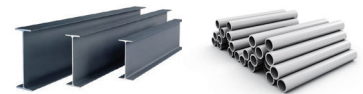
Precast concrete panel
manufacturing sector

Heavy-Duty Automated Transfer



Target Items

Large construction
materials and
Other heavy materials



Products & Technologies Applied

Multi-axis (4 or more) Gantry Robot, Dedicated gripper,
Structural design technology for handling heavy loads
from 1 ton to 10 tons

Applicable Fields

Industrial sectors requiring transportation
of heavy loads over 1 ton

Process Logistics Automation Solution

Automated Logistics Warehouse



Target Items

Pallet cargo,
BOX cargo, and Others



Products & Technologies Applied

Shuttle robots,
Stacker cranes,
WCS (Warehouse Control System solution)

Applicable Fields

Storage and input/output management of
pallet and box cargo across all industries

Automated Logistics for 2nd Battery Component Manufacturing



Target Items

Secondary battery cans and
CAP Assy

Products & Technologies Applied

Rivet assembly automation, Vision inspection,
Helium leak inspection, Palletizing, Logistics automation

Applicable Fields

High-speed small component manufacturing
lines in all industries (60 PPM or higher)



Major Customers



Global Expansion



- | | | | | | |
|----------------|---------|--------|-----------|----------------|----------------------|
| Indonesia | China | Japan | Singapore | Norway | United Arab Emirates |
| United States | Poland | India | Brazil | Saudi Arabia | |
| United Kingdom | Germany | Mexico | Vietnam | Czech Republic | |



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