## **SIASUN** Introduction



# Agenda

- Introduction
- Industry Chain

   Industrial Robot
   Robotic Equipment
   Intelligent Logistics
   Mobile Robot
   Automation Equipment
   Service Robot
   New Generation of Robot
- SIASUN Singapore Introduction



# Introduction















#### General introduction



SIASUN Robot & Automation Co., LTD is a high-tech company named after the father of Chinese robot--Mr.Jiang Xinsong. SIASUN was founded in 2000 and formerly known as national robots research center in Shenyang Institute of Automation, Chinese Academy of Sciences. In 2009, SIASUN joined into Growth Enterprise Market (GEM) of China as the first batch of companies. Now SIASUN is the nation's highest-level industry group with full industry chain, large-scale production line and enormous influence.



#### **SIASUN Development History**

2011 SIASUN Wisdom Park Foundation

Extension of whole industrial chain



2007 The batch exportation of products



2004 Products fill the domestic robots

technology gap



**2002** Foundation of the phase **I** Industrial Park

**1999** The initiator--- Institute of automation, Chinese Academy of Sciences

**Today** SIASUN has the most comprehensive robot production line



2009 First Robot stock in China

**2006** Undertake a number of national scientific researches

2000 Formal establishment of SIASUN



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#### Performance in stocking market

The cumulative increase of share price reached 4800%, from 617 million RMB to 30000 million RMB. It has much greater performance than GEM. SIASUN has became one of the top three robotics enterprise and the first business growth in the robotic industry in the world.



#### Domestic layout







**Central China** sales headquarter

Southwest China sales headquarter

#### **Shenyang SIASUN robot & automation** co., LTD (Domestic Headquarter)

Shenyang SIASUN intelligent drive co., LTD Beijing SIASUN Jiahe electronic system co., LTD Robot engineering center Shandong branch

Qingdao SIASUN robot & automation co., LTD



Zhongke SIASUN Co., Ltd. (International Headquarter)

Shanghai SIASUN robot & automation co., LTD

Hangzhou SIASUN robot & automation co., LTD

Guangdong intelligent robot and industrial automation research center

Southern China sales headquarter



## International layout



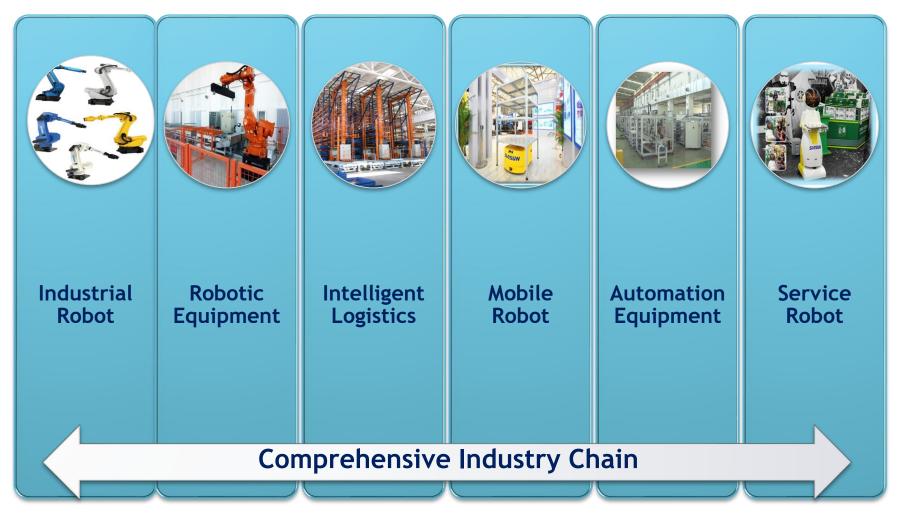
- Hong Kong, Singapore
- Thailand
- Japan
- North America



#### **Overseas Customer**



## Industry Chain





### Industrial Robot



SIASUN brand Robots









## Robotic Equipment



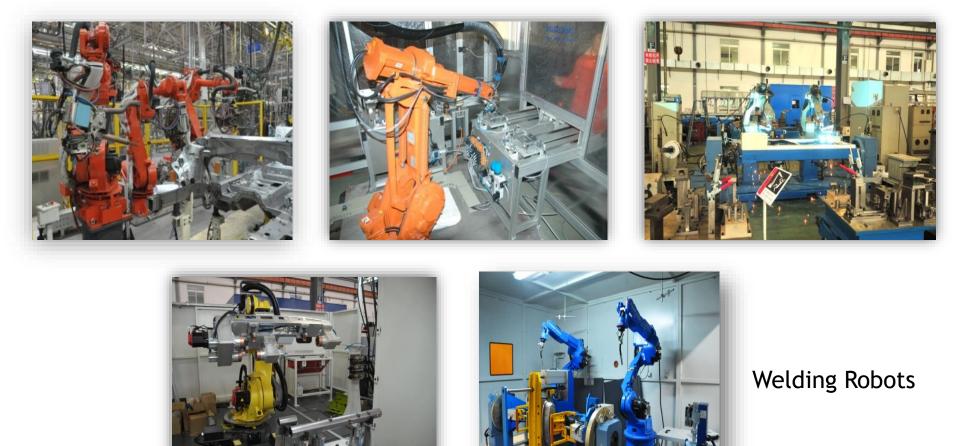




Palletizing Robots



### Robotic Equipment









AS/RS (Automatic Storage and Retrieval System)

Stacker Crane







**Conveyor System** 

Stacking & unstacking device





Shuttle System



#### **Elevator System**



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Singapore Thomson Line ASRS





#### RUSSIA LIOTECH LTD





INDIA AUROBINDO PHARMA LTD





Thailand Michelin (Installation phase)

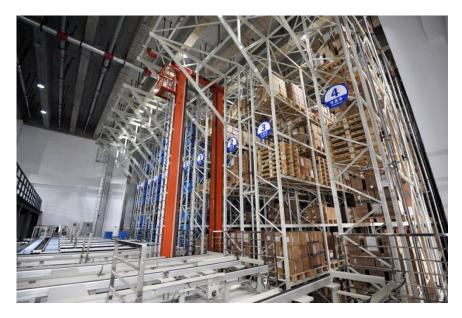


### Intelligent Logistics-Grid



Shandong State Grid Company

lane	10
Stacker Crane	10
Storage	94000 units
Loading Capacity	500kg



Sichuan State Grid Company

lane	6
Stacker Crane	6
Storage	11520 units
Loading Capacity	500kg
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### Intelligent Logistics-Automobile





• Cherry automobile - shuttle car

Weichai -conveyor and lifter



### Intelligent Logistics-Space flight



• Xi'an aircraft group -AS/RS

Shenyang Liming-AS/RS



### Intelligent Logistics-Transportation



Nanjing metro line 4 - AS/RS

lane	6
Stacker Crane	4
Storage	5640 units
Loading Capacity	1000kg



Shenyang light rail -AS/RS

lane	3
Stacker Crane	3
Storage	336 units
Loading Capacity	1000kg
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### Intelligent Logistics-Tobacco





• Yanji tobacco stacking robot

• Tianjin Tobacco Stacking robot



### Intelligent Logistics-Machinery



Kunshan SANY AS/RS

lane	1
Stacker Crane	1
Storage	17 units
Loading Capacity	3000kg



#### BEL Shenyang AS/RS

lane	2
Stacker Crane	2
Storage	136 units
Loading Capacity	1000kg
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## Mobile Robot



Dual-lifter AGV Car assembly(GM,Ford,Nissan)





#### Forklift AGV(BMW)



## Mobile Robot



AMR(Autonomous mobile robot) Loading capacity = 500 kg



AGC(Autonomous guided cart) Towing capacity = 1000kg





## Mobile Robot (Heavy duty)

Application: Storage, Manufacturing, Harbor, Airport, Hazardous site



Loading capacity = 40 tons



Loading capacity = 15 tons



Loading capacity = 75 tons



Lifting capacity = 3.5 tons *SINSUN 新松* 耀 離 開 望 Beyond Expectation

Function	Transferring chassis of CRH
Driving method	Dual steering wheels
Navigation method	Magnetic tape
Moving method	All direction
Loading capacity	3.6 tons
Max line speed	36m/min
Max turning speed	20m/min
Positioning accuracy	±5mm
Guiding tolerance	±10mm
Safety method	Laser anti collision sensor (SICK)
Working sites	Shanghai, Wuhan, Tianjin, Tangshan

#### Mobile Robot (Heavy duty)





Function	Transferring chassis of CRH
Driving method	Four steering wheels
Navigation method	Magnetic tape
Moving method	All direction
Loading capacity	12 tons
Max line speed	30m/min
Max turning speed	15m/min
Positioning accuracy	±5mm
Guiding tolerance	±10mm
Safety method	Laser anti collision sensor (SICK)
Working sites	Guangzhou

#### Mobile Robot (Heavy duty)





Function	Mobile welding platform
Driving method	Four steering wheels
Navigation method	Magnetic tape
Moving method	All direction
Loading capacity	10 tons
Max line speed	30m/min
Max turning speed	15m/min
Positioning accuracy	±5mm
Guiding tolerance	±10mm
Safety method	Laser anti collision sensor (SICK)
Working sites	Zoomline Heavy Industry

#### Mobile Robot (Heavy duty)





## Mobile Robot



Composed Robot (Sandisk)



#### Surveillance Robot





### Mobile Robot (Outdoor)





#### Outdoor AGV is able to work under the following condition:

Navigation	Gyroscope + Transponder
Winter	Outdoor temperature is -20 degrees
Winter	Road surface icing thickness is 10mm
Rainy season	Water level on the road is 80mm
Windy season	Wind speed is 74km/hour
Dragging capacity	4 tons



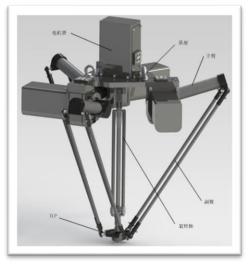
#### **Automation Equipment**















#### Service Robot













## Service Robot



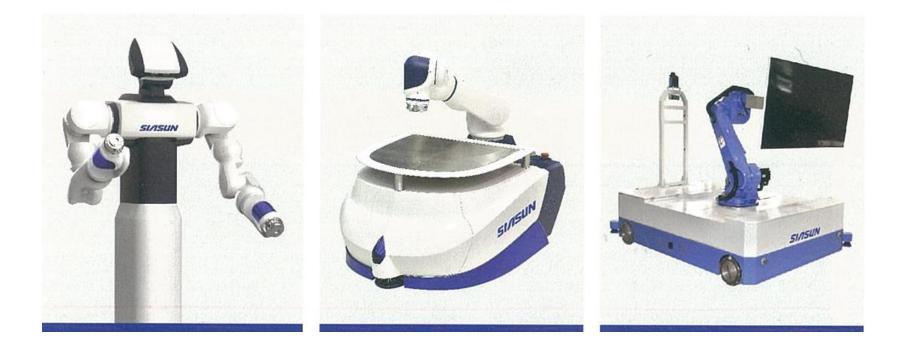
Medical care Robot



Cleaning Robot



### New Generation of Robot





#### Part of Our Customers (Mobile Robots)

#### Automobile Body Chassis Marriage

Shenyang Brilliance Auto Co., Ltd Guangxi Automobile Group Chongqing Changan Ford Co., Ltd Hainan Automobile Co., Ltd SAIC Chery Group Shenyang Zhongshun Automobile Hunnan Changfeng Automobile Co., Ltd SAIC Wuling Automoible Co., Ltd FAW Automobile Group SAIC-GM (Shenyang) Changan Ford Automobile Co., Ltd Weichai Power Co., Ltd SAIC-GM Baoding Greatwall Automobile Co., Ltd SAIC-GM Wuling Automobile Co., Ltd SAIC Automobile Co., Ltd Land Rover China Shanghai Maple Automobile Changan Ford & Mazda Automobile Geely Group (Zhejiang) Weibo Transmission Machine Co., Ltd (Chengde) Lotus Automobile

Haima Automobile (Zhengzhou) Huatai Atomobile Group (Ordos) Hangzhou Lotus Automobile FAW Group (Tianjin) Geely Automobile (Cixi) Dongfeng Motor Company Ltd Foton Automobile Chery Automobile (Dalian) FAW Haiman Automobile Co., Ltd SMA Shanghai Shanxi Changzhi Automobile parts Co. Chongqing Lifan Automobile Chengde Tianbao Machinery Ltd. Shenyang Brilliance Auto Co., Ltd **Diesel Machine Testing** Workshop Transport Industry Guangxi Yulin Diesel Group SDEC Co., Ltd (Dalian) Weichai Power Co., Ltd Anhui Tianli Power Co., Ltd China Heavy Duty Truck Group Automobile Parts Industry China Fast Gear Co., Ltd (Xi'an) Weichai Power Co., Ltd China Heavy Duty Truck Group (Da Tong)

Dongfeng Gear Box Co., Ltd FAW Gear Box Co., Ltd (Changchun) Dongfeng Automobile Co., Ltd Fast Gear Co., Ltd (Baoji) **Tobacco Industry** Shanghai Tobacco Chongqing Tobacco Jilin Tobacco **Power Industry** Xian XD Switchgear Electric Co., Ltd North China Grid Company Ltd **Chongqing Power Science Test** Academy Taian Power Company Liaocheng Power Company Xian Power Supply Bureau Center Power Supply Bureau (Hu He Hao Te) **Tianjin Power Supply Company** Centre Zhengzhou Sanhui Electric Ltd Medicine & Food Industry Shandong Fruida **Tianjin Tasly** Mengniu Diary

#### **Engine & Hi-speed Rail** Guangzhou Railway Bureau Motor Car Checking Base Baichuan Co., Ltd Herbin High Power Car Checking Base Wuhan Railway Bureau Motor Car Checking Base **Tianjin Bureau High Power Base** Shanghai Railway Bureau High Power Check Base **Petrochemical Industry & Exploration** Industry Kunming Sino- Platinum Metals Catalyst Co..Ltd Zhuhai Cellulose Fibers Co., Ltd Kunming Cellulose Fibers Co., Ltd Education & Training Industry Xian University of Technology Shanghai Fuan Automation Co., Ltd Wuhan University of Technology Logistic Engineering College **Zhejiang Technical Institute of Economics** Papermaking & Printing Industry..... Other Industry AVIC Hongdu



#### **International application Customers (Mobile Robots)**

No.	Project	Year	AGV Qty	Plant location
1	GM Cactus Phase I	2007	9	Mexico SLP
2	GM Cactus Phase II	2011	3	Mexico SLP
3	GM Blue Ocean	2008	6	Russia St.Petersburg
4	GM Oshawa Phase I	2007	35	Canada Oshawa
5	GM Oshawa phase II	2010	12	Canada Oshawa
6	GMDAT Phase I	2008	11	Korea Inchon
7	GMDAT Phase II	2008	15	Korea Inchon
8	Ford India	2009	8	India Chennai
9	GM Detroit Phase I	2009	32	U.S. Detroit
10	GM Detroit Phase II	2012	5	U.S. Detroit
11	GM India	2011	8	India Talagon
12	GM Uzbekistan	2012	9	Uzbekistan
13	BMW Brilliance Auto Phase I	2014	15	China
14	AGCO Changzhou	2014	30	China
15	GM Mexico	2014	1	Mexico SLP
15	GM Korea	2014	4	Korea Inchon
16	SANDISK	2014	3	China
17	GM Uzbekistan	2014	2	Uzbekistan
18	BMW Brilliance Auto Phase II	2015	6	China
19	SANDISK	2015	59	China
20	Great wall motor	2015	6	Russia
21	Geely auto	2015	3	Belarus



#### SIASUN OVERSEAS PROJECTS

#	Overseas Customer	Remark Project Location		Year of Contract	Equipment	
1	BMW Brilliance		Shenyang engine plant, China	2015, 2016	ASRS & AGV & palletizing robot	
2	Singpaore Land Transport Autority - Downtown Line Metro Project	Singpaore government orgnization, in control of Singapore metro	Singpaore	2016	ASRS	
3	Singpaore Land Transport Autority - Tomson Line Metro Project	Singpaore government orgnization, in control of Singapore metro	Singpaore	2014	ASRS	
4	Boysen	specialist for exhaust technology rank top 10 in the world for exhaust technology	Shenyang factory, China	2014	ASRS	
5	Wm. Wringly Jr. Company	the leader in cofections	Guangzhou Plant, China	2013	ASRS	
6	Li-ion Technologies Limited. (Liotech Ltd)		Novisibirsk, Russia	2011	ASRS	
7	Aurobindo Pharma Ltd Unit 3					
8	Aurobindo Pharma Ltd - Unit 7(Phase I & II)	founded in 1986, listed company Top 5 pharma in India	Hyderabad, India	2008, 2010, 2011	ASRS	
9	Aurobindo Pharma Ltd - Unit 7 - Refiiting, change straight aisle to curving aisle	-		2011		
10	Bengal Textiles Company (Phase I)		Rengal		ASRS	
11	Bengal Textiles Company (Phase II)		Bengal	2008, 2009		



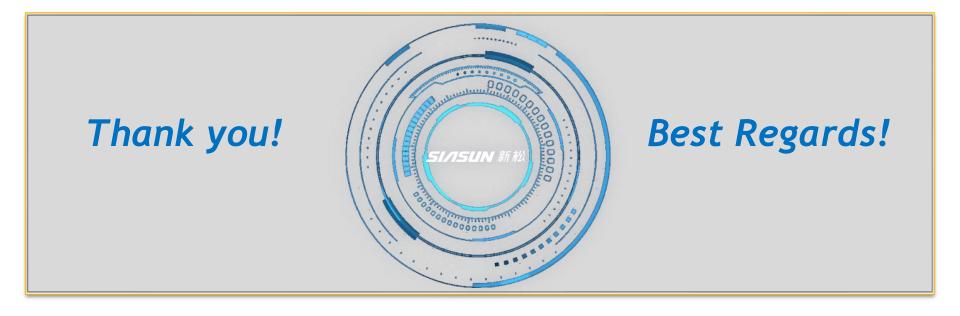
12	Ford Motor Company	Chennai, India	2008, 2016	AGV
13	General Motors	Uzbekistan	2011, 2015	AGV
14	General Motors	Inchon, South Korea	2008, 2013	AGV
15	General Motors	Detriot, America	2009	AGV
16	General Motors	Oshawa plant, Canada	2007	AGV
17	General Motors	St. petersburg, Russia	2007	AGV
18	General Motors	Pune, India	2007	AGV
19	General Motors	Halol plant, India	2008	AGV
20	General Motors	Mexico	2007	AGV
21	Geely Auto	Berarus	2015	AGV



22	Chia Tai Group		Thailand	2016	Food Delivery Robot
23	Fujicon Engineering Pte		Singpaore	2016	Food Delivery Robot
24	Mobot Pte. Ltd		Singpaore	2015	Food Delivery Robot
25	Melbourne City Metro		Melbourne, Australia	2013	Metro Ticket selling machine
26	Inergy Automotive System (Thailand) Ltd.	under The Plastic Omnium Group focusing on plastic fuel system oeprations	Rayong, Thailand	2008, 2010	Automatic Assembly and Production Line
27	Legrand Electricity		France and Turkey founded in 1860	2007	Test Station



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#### SIASUN Robot & Automation CO., Ltd http://www.siasun.com

