METHODOLOGY
Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

INFORMATION SOURCES
The primary information sources include Company Reports, and National Bureau of Statistics of China etc.
Abstract

In 2018, a total of 156,400 industrial robots were sold in China, soaring by 14.97% on an annualized basis, making China be the largest consumer of industrial robots in the world for six consecutive years. The burgeoning development of industrial robots is facilitated by the two below. First, the applied markets-- automobile, high-end equipment manufacturing and electronics & appliances -- have developed radically; second, the innovation capability of Chinese industrial robots has been improved progressively and localization of core components has risen.

Concerning robot types, articulated handling robot still prevailed in 2018, and its strong sales growth serves as a stimulus for the quality improvement of Chinese robots. By application, handling and welding robots are still in a dominant position, and the sales volume of robots for processing (laser cutting, mechanical cutting, deburring, polishing, etc.) also increased a lot.

Speed reducer, controller and servo system are the core components of an industrial robot, sharing more than 70% of the total cost. In recent years, China has made remarkable progress in localization of controllers and servo systems, but has tried in vain in mass production of speed reducers due to the high technical barriers. The Chinese speed reducer market has been monopolized by Japanese companies (Nabtesco's RV speed reducers occupy about 60%, and Harmonica's harmonic speed reducers make up about 15%), while Chinese players rely on imports heavily. In the future, only breakthroughs have been made in speed reducer can bring a rosy outlook for Chinese robots.

At present, Switzerland ABB, Germany KUKA, Japan FANUC and Yaskawa occupy about 60% of the Chinese industrial robot market, and they are scrambling for more, particularly quicker expansion in 2018.
### Expansion Plans of Four Industrial Robot Companies in China, 2018-2019

<table>
<thead>
<tr>
<th>Companies</th>
<th>Time</th>
<th>Expansion Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABB</td>
<td>May 17, 2018</td>
<td>ABB inaugurated a new robotics application center at the Liangjiang New District of Chongqing Municipality on May 17, 2018. The establishment of the center signifies a further push from ABB to support the development of the robotics industry in China’s western regions, step up smart manufacturing and drive industrial upgrade.</td>
</tr>
<tr>
<td></td>
<td>Oct 27, 2018</td>
<td>ABB announced a US$150 million investment in Shanghai, China to build the world’s most advanced, automated and flexible robotics factory - a cutting-edge center where robots make robots. It is expected to begin operating by the end of 2020, with the annual capacity of up to 100,000 units.</td>
</tr>
<tr>
<td>Yaskawa</td>
<td>Jun 15, 2018</td>
<td>Yaskawa announced that a completion ceremony was held on June 15, 2018 of the third plant at Yaskawa (China) robotics Co., Ltd. The completion of the third plant and reorganization for the first and second plants will increase its manufacturing capacity from 1,000 units monthly to 1,500 units monthly, or 18,000 units per year.</td>
</tr>
<tr>
<td>KUKA</td>
<td>Jul 2018</td>
<td>Kuka’s second robot plant in Shanghai went into production. It planned to set up a new robot factory Shunde as its second largest plant in the world with the capacity of 75,000 robots yearly by 2024.</td>
</tr>
<tr>
<td>FANUC</td>
<td>Mar 28, 2018</td>
<td>The foundation and opening ceremony of Guangzhou FANUC Robotics Co., Ltd. was held in Guangzhou Science City. The company will build a South China base integrating robot marketing, show, training, technical support and warehousing.</td>
</tr>
<tr>
<td></td>
<td>Apr 3, 2019</td>
<td>FANUC announced that its largest robot production base outside Japan is about to settle in Shanghai. The project is named FANUC “Super Smart Factory” with total investment of about RMB1.5 billion.</td>
</tr>
</tbody>
</table>

Source: ResearchInChina
In the meantime, Chinese industrial robot producers performed brilliantly as well in 2018. ESTUN earned the revenue of RMB735 million from industrial robots and intelligent manufacturing systems in 2018, an upsurge of 50.28% over last year, and with an anticipated growth rate of 20% in 2019. Brotherobot outperformed its goal by selling 15,788 manipulators and 5,137 robots (compared with only 351 units in 2017), and ranked first in China by the sales volume of robots made in China. EFORT officially rolled out a new generation of ER3B-C10 robot, and in February 2019 it started its next-generation intelligent industrial robot R&D and industrialization project.

Global and China Industrial Robot Industry Report, 2019-2025 by ResearchInChina focuses on the following:

- Market size, market structure, key enterprises, etc. of global industrial robots;
- Development history, market size, supply and demand, market structure, investment and development prospect, etc. of Chinese industrial robots;
- Market size, business structure, future trends, etc. of Chinese key industrial robot components (speed reducer, controller and servo system);
- 10 key global companies including ABB, KUKA, FANUC and Yaskawa (industrial robot business, layout in China, future planning, etc.);
- 23 key Chinese companies including SIASUN Robot & Automation, Shanghai STEP Electric, ESTUN, EFORT and Brotherobot (operation, industrial robot business, R&D, future strategy, etc.)
# Table of contents

1. Overview of Industrial Robot
   1.1 Definition and Classification
      1.1.1 Robot
      1.1.2 Industrial Robot
   1.2 Application and Classification
   1.3 Industrial Chain
      1.3.1 Upstream
      1.3.2 Midstream
      1.3.3 Downstream

2. Global Industrial Robot Industry
   2.1 Market Size
   2.2 Market Structure
      2.2.1 By Region/Country
      2.2.2 By Industry
      2.2.3 By Application
   2.3 Major Companies

3. Development of Industrial Robot in China
   3.1 Development History
   3.2 Market Supply and Demand
      3.2.1 Output
      3.2.2 Sales Volume and Structure
      3.2.3 Import and Export
   3.3 Industrial Robots Made in China
   3.4 Major Companies
   3.5 Development Prospect

4. Core Components for Industrial Robot in China
   4.1 Overview
   4.2 Speed Reducer
      4.2.1 Classification
      4.2.2 Market Status
      4.2.3 Enterprises
   4.3 Controller
      4.3.1 Market Size
      4.3.2 Major Enterprises
      4.3.3 Development Trend
   4.4 Servo System

5. Major Chinese Industrial Robot Companies
   5.1 SIASUN Robot & Automation Co., Ltd
      5.1.1 Profile
      5.1.2 Operation
      5.1.3 Revenue Structure
      5.1.4 Gross Margin
      5.1.5 Industrial Robot Business
      5.1.6 Development Strategy
   5.2 Shanghai STEP Electric
      5.2.1 Profile
      5.2.2 Operation
      5.2.3 Industrial Robot Business
   5.3 ESTUN
      5.3.1 Profile
Table of contents

5.3.2 Operation
5.3.3 Industrial Robot Business
5.4 EFORT
5.4.1 Profile
5.4.2 Industrial Robot Business
5.4.3 Development Strategy
5.5 Brotherobot
5.5.1 Profile
5.5.2 Operation
5.5.3 Industrial Robot Business
5.5.4 R&D
5.5.5 Strategic Planning
5.6 HS Robotics
5.6.1 Profile
5.6.2 Industrial Robot Business
5.6.3 R&D
5.7 Peitian Robot
5.7.1 Profile
5.7.2 Industrial Robot Business
5.8 Qianjiang Robot
5.8.1 Profile
5.8.2 Industrial Robot Business
5.9 GSK CNC Equipment
5.9.1 Profile
5.9.2 Industrial Robot Business
5.10 STSrobotics
5.10.1 Profile
5.10.2 Industrial Robot Business
5.11 Others
5.11.1 ROKAE
5.11.2 Inovance Technology
5.11.3 QKM
5.11.4 Honyen Automation Equipment
5.11.5 Shenzhen Jasic Technology
5.11.6 MESNAC
5.11.7 Shanghai Triowin Automation Machinery
5.11.8 Harbin BOSHI Automation
5.11.9 Suzhou Boshi Robotics Technology
5.11.10 Changzhou Mingseal Robotic Technology
5.11.11HUAHENG Welding
5.11.12 Harbin Haier & HIT Robot Technology
5.11.13 Tangshan Kaiyuan Group

6. Major Global Industrial Robot Companies
6.1 FANUC
6.1.1 Profile
6.1.2 Operation
6.1.3 Industrial Robot Business
6.2 YASKAWA
6.2.1 Profile
6.2.2 Operation
6.2.3 Industrial Robot Business
6.3 KUKA
6.3.1 Profile
6.3.2 Operation
6.3.3 Industrial Robot Business
<table>
<thead>
<tr>
<th>Section</th>
<th>Subsection</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.4 ABB</td>
<td>6.4.1 Profile</td>
</tr>
<tr>
<td></td>
<td>6.4.2 Operation</td>
</tr>
<tr>
<td></td>
<td>6.4.3 Industrial Robot Business</td>
</tr>
<tr>
<td>6.5 OTC</td>
<td>6.5.1 Profile</td>
</tr>
<tr>
<td></td>
<td>6.5.2 Operation</td>
</tr>
<tr>
<td></td>
<td>6.5.3 Industrial Robot Business</td>
</tr>
<tr>
<td>6.6 Comau</td>
<td>6.6.1 Profile</td>
</tr>
<tr>
<td></td>
<td>6.6.2 Operation</td>
</tr>
<tr>
<td></td>
<td>6.6.3 Industrial Robot Business</td>
</tr>
<tr>
<td>6.7 NACHI</td>
<td>6.7.1 Profile</td>
</tr>
<tr>
<td></td>
<td>6.7.2 Operation</td>
</tr>
<tr>
<td></td>
<td>6.7.3 Industrial Robot Business</td>
</tr>
<tr>
<td>6.8 Kawasaki Heavy Industries</td>
<td>6.8.1 Profile</td>
</tr>
<tr>
<td></td>
<td>6.8.2 Operation</td>
</tr>
<tr>
<td></td>
<td>6.8.3 Industrial Robot Business</td>
</tr>
<tr>
<td>6.9 Hyundai Heavy Industries</td>
<td>6.9.1 Profile</td>
</tr>
<tr>
<td></td>
<td>6.9.2 Business in China</td>
</tr>
<tr>
<td>6.10 St?ubli</td>
<td>6.10.1 Profile</td>
</tr>
<tr>
<td></td>
<td>6.10.2 Business in China</td>
</tr>
<tr>
<td>7. Summary and Forecast</td>
<td>7.1 Market</td>
</tr>
<tr>
<td></td>
<td>7.2 Company</td>
</tr>
</tbody>
</table>
Table of contents

- Industrial Robot System Diagram
- Advantages of Industrial Robot
- Mobile Robot (Automated Guided Vehicle, AGV)
- Spot-welding Robot
- Arc Welding Robot
- Laser-processing Robot
- Destacking & Stacking Robot
- Vacuum Robot
- Clean Robot
- Cost Structure of 50KG Industrial Robot in China
- Development Course of Industrial Robot in Developed Countries
- Global Industrial Robot Sales, 2012-2025E
- Global Industrial Robot Sales Volume, 2009-2025E
- Global Industrial Robot Ownership, 2009-2025E
- Global Industrial Robot Sales Volume by Region/Country, 2017-2022E
- Global Industrial Robot Sales Volume by Application, 2015-2018
- Structure of Global Industrial Robot Market, 2018 (by Sector)
- Distribution of Global Industrial Robot Manufacturers by Industry Chain
- Comparison of Global Four Major Industrial Robot Manufacturers
- Competitive Advantages of Global Four Major Industrial Robot Manufacturers
- Revenue of Global Major Four Industrial Robot Manufacturers, 2018
- Chinese Industrial Robot Market Size, 2015-2025E
- China’s Industrial Robot Output by Month, 2017-2019
- Sales Volume of Industrial Robot in China, 2013-2025E
- Industrial Robot Ownership in China, 2009-2019E
- China's Industrial Robot Sales Volume by Enterprise Type, 2016-2018
- Sales Volume Breakdown of Industrial Robot in China by Mechanical Structure, 2016-2018
- Sales Volume Breakdown of Industrial Robot in China by Industry, 2016-2018
<table>
<thead>
<tr>
<th>Table of contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales Volume Breakdown of Industrial Robot in China by Field, 2016-2018</td>
</tr>
<tr>
<td>Top 15 Industrial Robots in China by Export Volume, 2018</td>
</tr>
<tr>
<td>Top 15 Industrial Robots in China by Import Volume, 2018</td>
</tr>
<tr>
<td>Sales Volume of Industrial Robots Made in China, 2015-2018</td>
</tr>
<tr>
<td>Sales Volume of Industrial Robots Made in China by Mechanical Structure, 2017-2018</td>
</tr>
<tr>
<td>Sales Volume of Industrial Robots Made in China by Application Industry, 2017-2018</td>
</tr>
<tr>
<td>Sales Volume of Industrial Robots Made in China by Application Field, 2017-2018</td>
</tr>
<tr>
<td>Related Companies in China Industrial Robot Industrial Chain</td>
</tr>
<tr>
<td>Strength and Business Models of Four Major Industrial Robots Companies</td>
</tr>
<tr>
<td>Competitive Pattern of China's Industrial Robot Market, 2018</td>
</tr>
<tr>
<td>Revenue Comparison between KUKA and ESTUN, 2014-2018</td>
</tr>
<tr>
<td>Industrial Robot Density in Major Countries, 2018</td>
</tr>
<tr>
<td>China's Automobile Output, 2008-2025E</td>
</tr>
<tr>
<td>Work Scenarios and Composition of Industrial Robot</td>
</tr>
<tr>
<td>Cost Structure of Industrial Robot in China, 2018</td>
</tr>
<tr>
<td>Technical Parameters and Difficulties of Harmonic and RV Speed Reducers</td>
</tr>
<tr>
<td>Global Industrial Robot Speed Reducer Shipments, 2014-2025E</td>
</tr>
<tr>
<td>Consumption and Output Value of Industrial Robot Speed Reducers in China, 2015-2025E</td>
</tr>
<tr>
<td>Supply Relationship between Major Global Industrial Robot Speed Reducer Manufacturers and Robot Companies</td>
</tr>
<tr>
<td>Major Local Industrial Robot Speed Reducer Manufacturers in China, 2018</td>
</tr>
<tr>
<td>Chinese Industrial Robot Speed Reducer Market Pattern, 2018</td>
</tr>
<tr>
<td>Different Industrial Robots Use Different Controllers</td>
</tr>
<tr>
<td>Chinese Industrial Robot Controller Market Size, 2015-2025E</td>
</tr>
<tr>
<td>Major Industrial Robot Controller Companies at Home and Abroad</td>
</tr>
<tr>
<td>Competitive Landscape of Chinese Industrial Robot Controller Market, 2018</td>
</tr>
<tr>
<td>Major Suppliers of Industrial Robot Servo System Components</td>
</tr>
<tr>
<td>Competitive Landscape of Chinese Industrial Robot Servo System Market, 2018</td>
</tr>
<tr>
<td>Revenue and Net Income of SIASUN Robot &amp; Automation, 2013-2018</td>
</tr>
</tbody>
</table>
Revenue Breakdown of SIASUN Robot & Automation by Product, 2016-2018
Operating Revenue Breakdown of SIASUN Robot & Automation by Region, 2016-2018
Gross Margin of SIASUN Robot & Automation by Product, 2016-2018
Revenue from and Gross Margin of Industrial Robot Business of SIASUN Robot & Automation, 2013-2018
Operating Revenue and Gross Margin of Shanghai STEP Electric, 2016-2018
Main Industrial Robots of Shanghai STEP Electric
R&D Costs and % of Total Revenue of Shanghai STEP Electric, 2016-2018
Revenue and Net Income of ESTUN, 2011-2018
Gross Margin of ESTUN, 2011-2018
Revenue Structure of ESTUN, 2018
Main Product Lines of EFORT
Memorabilia of EFORT
Main Performance of EFORT’s ER3B-C10 Robot
Revenue and Net Income of Brotherobot, 2011-2018
Revenue Structure of Brotherobot by Business, 2016-2018
Manipulator and Robot Shipments of Brotherobot, 2017-2019
R&D Costs and % of Total Revenue of Brotherobot, 2014-2018
The 2049 Revenue Plan of Brotherobot
Products of HS Robotics
Development History of HS Robotics
Products of Peitian Robot
Development History of Peitian Robot
Products of Qianjiang Robot
Memorabilia of Qianjiang Robot
Main Products and Customers of Shanghai Triowin Automation Machinery
Handling Robot Series of Shanghai Triowin Automation Machinery
Industrial Robot Sales Volume of Shanghai Triowin Automation Machinery, 2013-2019E
# Table of contents

Main Industrial Robot Series of Suzhou Boshi Robotics Technology  
Main Industrial Robot Series of Changzhou Mingseal Robotic Technology  
Main Industrial Robot Series of HUAHENG Welding  
Main Product Series of Harbin Haier & HIT Robot Technology  
Industrial Robot Series of Main Subsidiaries of Tangshan Kaiyuan Group  
Development History of FANUC  
Net Revenue and Net Income of FANUC, FY2014-FY2018  
Revenue Breakdown of FANUC by Business, FY2018  
Global Network of FANUC, 2018  
Revenue Breakdown of FANUC by Region, FY2016-FY2018  
Branch Office of Shanghai-FANUC Robotics  
Main Customers in China for FANUC’s Industrial Robots  
Net Revenue and Net Income of YASKAWA Electric, FY2014-FY2018  
Revenue Breakdown of YASKAWA Electric by Business, FY2014-FY2018  
Revenue Breakdown of YASKAWA Electric by Region, FY2014-FY2018  
Revenue and Operating Income from Robot Business of YASKAWA Electric, FY2014-FY2018  
Industrial Robot Companies of YASKAWA Electric in China  
Major Industrial Robot Product Lines of Yaskawa Shougang Robot Co., Ltd  
Global Business of KUKA  
EBIT Orders, Revenue and EBIT of KUKA, 2013-2018  
Main Financial Indexes of KUKA Robotics Division, 2014-2018  
Main Financial Indexes of KUKA Systems Division, 2014-2018  
Orders Structure of KUKA Robotics by Application, 2014-2018  
Orders, Revenue and Net Income of ABB, 2013-2018  
Orders Structure of ABB by Business and Region, 2016-2018  
Revenue Structure of ABB by Business and Region, 2016-2018  
Net Revenue and Net Income of OTC, FY2013-FY2019  
Revenue of OTC by Segment, FY2013-FY2019
Subsidiaries of OTC in China and Contacts
Global Business of Comau
Revenue and EBIT of Comau, 2013-2018
Robots of Comau
Comau's Robotics Revenue, 2013-2018
Comau's Robotics Shipment, 2013-2018
Comau's Robotics Clients 2018
Business Structure of Nachi
Net Revenue and Net Income of Nachi, 2013-2018
Revenue Breakdown of Nachi by Product, 2014-2018
Overseas Revenue of Nachi, 2014-2018
Development Planning of Nachi for 2019
Organizational Chart of Kawasaki Heavy Industries
Revenue and Net Income of Kawasaki Heavy Industries, FY2013-FY2018
Net Revenue Breakdown of Kawasaki Heavy Industries by Business, FY2013-FY2018
Robot Production Bases of Kawasaki Heavy Industries
Industrial Robots of Kawasaki Robotics (Tianjin)
You can place your order in the following alternative ways:

1. Order online at [www.researchinchina.com](http://www.researchinchina.com)
2. Fax order sheet to us at fax number: +86 10 82601570
3. Email your order to: [report@researchinchina.com](mailto:report@researchinchina.com)
4. Phone us at +86 10 82600828

<table>
<thead>
<tr>
<th>Party A:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Person:</td>
<td>Tel</td>
<td></td>
</tr>
<tr>
<td>E-mail:</td>
<td>Fax</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Party B:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Beijing Waterwood Technologies Co., Ltd (ResearchInChina)</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td>Room 801, B1, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080</td>
<td></td>
</tr>
<tr>
<td>Contact Person:</td>
<td>Liao Yan</td>
<td>Phone: 86-10-82600828</td>
</tr>
<tr>
<td>E-mail:</td>
<td><a href="mailto:report@researchinchina.com">report@researchinchina.com</a></td>
<td>Fax: 86-10-82601570</td>
</tr>
<tr>
<td>Bank details:</td>
<td>Beneficial Name: Beijing Waterwood Technologies Co., Ltd</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bank Name: Bank of Communications, Beijing Branch</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bank Address: NO.1 jinxiyuan shijicheng, Landianchang, Haidian District, Beijing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bank Account No #: 110060668012015061217</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Routing No #: 332906</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bank SWIFT Code: COMMCHNA888</td>
<td></td>
</tr>
</tbody>
</table>

Choose type of format

- PDF (Single user license) .......... 2,600 USD
- Hard copy .......................... 2,800 USD
- PDF (Enterprisewide license) ....... 3,900 USD

※ Reports will be dispatched immediately once full payment has been received.
Payment may be made by wire transfer or credit card via PayPal.
About ResearchInChina

ResearchInChina (www.researchinchina.com) is a leading independent provider of China business intelligence. Our research is designed to meet the diverse planning and information needs of businesses, institutions, and professional investors worldwide. Our services are used in a variety of ways, including strategic planning, product and sales forecasting, risk and sensitivity management, and as investment research.

Our Major Activities

- Multi-users market reports
- Database-RICDB
- Custom Research
- Company Search

RICDB (http://www.researchinchina.com/data/database.html), is a visible financial data base presented by map and graph covering global and China macroeconomic data, industry data, and company data. It has included nearly 500,000 indices (based on time series), and is continuing to update and increase. The most significant feature of this base is that the vast majority of indices (about 400,000) can be displayed in map.

After purchase of our report, you will be automatically granted to enjoy 2 weeks trial service of RICDB for free.

After trial, you can decide to become our formal member or not. We will try our best to meet your demand. For more information, please find at www.researchinchina.com

For any problems, please contact our service team at:

Room 801, B1, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080
Phone: +86 10 82600828 ● Fax: +86 10 82601570 ● www.researchinchina.com ● report@researchinchina.com