Our passion for manufacturing is timeless and will never change.

Since being founded in 1915, Yaskawa Electric has set "electric motors and their applications" as its business domain and supported the leading-edge industries of the age. In order to engage in business with its own technology, the company established a creed of "becoming a technology-centered company," proposed the concept of "mechatronics," ahead of the rest of the world, and has maintained quality-first management with the determination to develop the world’s first-class and revolutionary technologies and products. Yaskawa’s core technologies are "motion control," "robotics," and "power conversion." These technologies and products born and created out of our search for elaborate control of mechanical movements contribute on a daily basis to improvements in the quality and efficiency of manufacturing around the world. We will continue to evolve technology and contribute to development of the world through our new solutions.

* In the late 1960s, Yaskawa Electric led the world in putting forward the concept facing "mechatronics" and "electronics." This concept evolved when we combined our customers’ machinery with Yaskawa’s electric products to create superior quality and function.

CONTENTS
- Vision .................................................. 03
- P-Mechatronics .................................. 05
- Motion Control .................................. 07
- Robotics ......................................... 09
- System Engineering ......................... 11
- Research & Development ................. 13
- CSR / Corporate Social Responsibility ... 15
- History & Corporate Outline ............. 17
- Global Network .................................. 19
- Offices & Subsidiaries in Japan ......... 20
- Factory Tour .................................... 21
- Company Outline ............................ 22
Cities move forward and never rest. What kind of future would you like to see?

**Our Vision**
We will provide new value to society by integrating the evolution of core technologies and open innovation.

In 2015, the 100-year anniversary of our company’s founding, the Company saw a dramatic change in the business environment as an opportunity and adopted the “Vision 2025” as a blueprint for its future management. In 2019, we reviewed the “Vision 2025” to clarify our company’s vision. In this review, we reconfirmed our company’s vision and established “factory automation and optimization” and “application area of mechatronics” centered on mechatronics as business domains. Furthermore, in order to accelerate the sustainable growth of society and the improvement of corporate value, while promoting quality-oriented management and real-time digital management, we are actively working to clarify themes to be addressed from the perspective of “ESG” with a focus on social contribution through our business activities of providing unique products.

**Vision 2025**
By advancing our core businesses, we will contribute to solving our customers’ management issues. We will also create new added value for society by expanding new fields that apply mechatronics technology.

**Factory automation and optimization business centered on i-Mechatronics**

**New Mechatronics Applications for Sustainable Development of Society**
A new industrial automation revolution is starting with digital data management.

By putting digital data management on top of the automated solutions based on mechatronics technologies and products that YASKAWA has provided to customers, YASKAWA realizes the solution concept “i+ Mechatronics (i-Cube Mechatronics)” and contributes to resolving customer’s business challenges from the production sites.

**THREE steps to realize i³-Mechatronics**

1. **Integrated**
   - A production site is visualized with data by sensors which act as a sensor.
   - Further automation is promoted by linking components such as robots, servomotors, and AC drives, etc., and their processes.
   - A layer is added with IT layer.

2. **Intelligent**
   - Data-driven analysis and learning (big data analysis and AI leverage)

3. **Innovative**
   - Data is fed back and turned into a movement for the improvement of productivity.

New value with “i cube”, digital data solution

**Smart factory realized by i³-Mechatronics**

1. **1** E-Edge is an information processing field for data analysis and feedback that requires real-time performance at production sites or factories.

2. **2** Cockpit is a software that can collect, store, and analyze real-time data on equipment and devices at production sites.
Driving Society

With 100 years of experience with motors and their control, we contribute to industrial and social developments with technologies we have cultivated.

AC servo drives and AC drives that command a world No. 1 share

The motion control business broadly consists of two product lineups: AC servo drives and AC drives. AC servo drives, which excel at high-speed and high-precision position control, are applied to various high-speed and high-performance equipment and automatic machines. AC drives control the rotation speeds of motors by flexibly changing the power supply frequencies of motors. The emergence of AC drives drastically upgraded the productivity of factories, and contributed to advancements in industrial and social development and energy savings. We, as a leading company of motor controls, have gained trust from our customers with a solid record of performance.

Major applications of AC servo drives

- Semiconductor and liquid crystal manufacturing equipment
- Chip mounters
- Machine tools
- Food and packaging machinery
- Textile machines
- Robots

AC servo drive “S-7 Series”
Motion controller “NP3000 series”

Major applications of AC drives

- Conveyors
- Fans and pumps
- Air-conditioning equipment
- Elevators and escalators
- Cranes

Application of AC drive technology to utilization of renewable energy

For the prevention of global warming, there is an increasing need to utilize renewable energy. Through the application of AC drive technology, we have commercialized power conditioners for solar power generation and drive systems for electric vehicles toward energy creation/application/storage.

AC drives

Solar AC/DC 1:1
(Triphase Isolated) PV inverter

Motor drive system for electric vehicles
One car comes off the production line every three seconds in Japan. How do robots in this country do this work?

Industrial robot "MOTOMAN" operating globally
Since the debut of the all-electric industrial robot "MOTOMAN" in Japan in 1977, we have taken a leading role in the world’s industrial robot market. Starting with arc welding for automobile production, for which we remain a market leader, our robots have assumed an active role in every industrial field including spot welding, handling, assembly and coating, as well as handling and transport in clean rooms for liquid crystal, organic EL displays and semiconductor manufacturing.
As one solution to the labor shortage in recent years, the scope of robot applications is extending to the food industry and other markets where there has been little practice in robotic automation.

From robots that replace to humans to robots that work with humans
Robots are now expanding their usage not only for industry but also many other fields through improving their speed and accuracy as well as handling complex movement and enhancing their safety function to collaborate with humans.
Yaskawa developed a robot that can work with humans without the need for a safety fence in 2017. With this robot, we support for the automation in the industries such as the consumer electronics, computers and communication equipment, in which robots have yet to be introduced as much.

Note: Risk assessment is needed in any case though MOTOMAN-HC180T doesn’t need a safety fence.
Secure Lifeline

Yaskawa’s system engineering technology supports our life 24 hours a day.

Ensuring the stable operation of water treatment plants and other public facilities

We support public electric facilities for which stable operation is essential, such as water treatment plants and transportation infrastructures. For water supply/sewage facilities that cannot be stopped even for one moment, we offer not only assured reliability but also solutions that meet social needs. Including environmental protection and disaster prevention. For the emerging needs, such as energy savings, advanced water purification, and effective utilization of facilities, we propose and construct new systems making full use of the leading-edge system engineering technology.

Offering optimum control systems with advanced technology

For many years, we have been engaged in the development, design, and production of electric equipment for industrial systems, and have accumulated a wealth of experience. Our control units and drive units have been adopted in every blast furnace operating in Japan, and have also secured top share around the world in large-scale blast furnace systems, supporting their stable operations on a 24-hour basis. We contribute to a comfortable life and the creation of an affluent society by offering highly reliable industrial systems with advanced technology and high-quality products.

Contributing to effective utilization of renewable energy and products for solar power generation

Utilization of renewable energy is being pressed forward worldwide, and we have commercialized generators and converters for large-scale wind power generation. In addition, we have created a lineup of large-capacity drive solutions from low voltage to high voltage, aiming at business expansion by pursuing new customers and entering into new fields, such as the marine vessel market. In addition, by reducing the total cost of photovoltaic power generation using power conditions for photovoltaic power generation, we are contributing to the conversion of renewable energy into a mainstay power source.
Passion for Innovation
Challenges and passion for innovation

Continuously taking on challenges for high-value-added technological innovation to change the world

We have continuously created the world’s first technology that enables the evolution of manufacturing under the motto of “emphasizing the importance of quality and constantly developing and improving technologies in which we can take pride throughout the world.”

At present, we are devoting ourselves to developing human and earth-friendly high technologies based on the theme of “Creation of Human & Eco Mechatronics,” centering on our Corporate Research & Development Center.

Human-friendly
Next-generation RT & MC system technology
As the population continues to age in combination with a declining birthrate, in spite of the elderly and labor shortages have become social issues, AI or R&D Center not only is the performance of conventional industrial robots being upgraded but also next-generation robots that can interact with people by supporting operations in support roles that will coexist with people, is being designed and developed.

Nurturing an affluent future
New mechanisms & motion control technology
We aim at creating high-added-value products by creating and optimizing applications-driven functions, and pursuing ultra-precision control technology.

Earth-friendly
Energy-saving & power conversion technology
Environmental and social issues can be addressed by “saving energy” and “efficient energy conversion.” We contribute to protecting the global environment through energy-saving and energy conversion technologies with high-efficiency mechatronics products.
Like animals and plants, a company might also be a companion living on this planet.

Action for Society
For building a sustainable society

Environmental Management
Toward realization of a low-carbon society, CO₂ emissions are halved at Robot Village.

As our head office is located in Kitakyushu City, an environmental future city, we promote environmental management aggressively. Taking the opportunity of the centennial anniversary in 2015, we have upgraded and renamed our head office “Robot Village” by promoting and implementing state-of-the-art eco-conscious initiatives. As environmental measures at Robot Village, our products and technologies are used to halve CO₂ emissions compared with conventional levels.

* “Robot Village” is our registered trademark.

At the Robot Village, CO₂ emissions are halved by “100 ECO Items”

Robot Village developed the “100 ECO Items” to coexist with the earth’s environment.

Social Contributions
Social contributions and support activities

As a social contribution activity, Yaskawa Mirai (Future) Club was established in-house. Our employees who endorse the club’s goals set aside a portion of their salary to support groups involved in such fields as “medicine and welfare,” “sound upbringing of youth,” and “environmental protection.” Also, we co-sponsor the Kosen Robo-Con (Technical College Students’ Robot Contest), in which engineers-to-be from around Japan compete in contests focusing on robot production ideas and technology as well as robot performance in hopes of fostering the next generation of talent.

Contribution activities through sports

Yaskawa Electric supports sports activities with the aim of providing people with “dreams” and “aspirations.” Since 2009, we have co-sponsored the professional soccer team “Grampus Kitakyushu.” We have also co-sponsored the “Kitakyushu Marathon” held since 2014, as the main sponsor, with Yaskawa employees and their families participating as marathon support volunteers. Our track & field team members have been active for more than 40 years mainly in long-distance running events, such as ekiden relay races and marathons, and continue to expand their event stage, from participation in the New Year Ekiden (All-Japan Corporate Team Ekiden Championships) to the World Track and Field Championships and the Olympics.
DNA of YASKAWA

Taking over the spirit of foundation, always developing cutting-edge technologies and products centering on "electric motors and their applications"
Global Network

Worldwide Yaskawa

Yaskawa’s worldwide network includes business bases in 30 countries and production bases in 12 countries.

Our customers’ global businesses are reliably supported by connecting our group companies and service bases throughout the world. We provide regionally-based finely-tuned support.

Europe
- France: Yaskawa France SARL
- Spain: Yaskawa Iberica SL
- Finland: Yaskawa Finland OY
- Norway: The Switch Engineering OY
- Sweden: Yaskawa Sweden AB
- Italy: Yaskawa Italia SARL

North America
- UK: Yaskawa America Inc.
- Canada: Yaskawa Canada Inc.
- Mexico: Yaskawa Mexico SA. DE CV.

Middle East-Africa
- Israel: Yaskawa Europe Technology (Israel) LTD
- Turkey: Yaskawa Turkey Electric (Turkey) LTD

South America
- Brazil: Yaskawa Electric do Brasil Ltda.
- Argentina: Yaskawa Argentina SA
- Colombia: Yaskawa Colombia SA

Asia Pacific
- China: Yaskawa Electric (Shanghai) Co., Ltd.
- Korea: Yaskawa Electric Korea Corporation
- Thailand: Yaskawa Electric (Thailand) Co., Ltd.
- Indonesia: PT. Yaskawa Electric Indonesia

Network in Japan

Our group force responds with technical skills and trust.

We flexibly meet customer needs with two R&D centers and five production bases in Japan.

We provide robust business support with complete nationwide coverage through a network of 16 branch and sales offices, and group companies and service bases across Japan.

Kyushu
- Head office (Robot Village)
- Laboratory (Corporate Research & Development Center)

Chubu
- Chubu office
- Chubu Robot Center
- Nagoya sales office
- Hamamatsu sales office
- Nagoya sales office
- Toyota sales office

Tohoku
- Tohoku sales office

Kanto
- Tohoku sales office
- Kanto Sales Office
- Kawasaki sales office
- Tokyo branch
- Kanto Robot Center / Saitama sales office
- Chiba sales office
- Yokohama sales office
- Hitachi sales office

Kinki
- Osaka sales office
- Kobe sales office

Shikoku
- Shikoku sales office

Chugoku
- Chugoku sales office

Group companies in Japan
- Yaskawa Manufacturing Corporation
- Yaskawa Electrical Corporation
- Yaskawa Electric Corporation
- Yaskawa Electric Corporation
- Yaskawa Manufacturing Corporation
- Yaskawa Manufacturing Corporation
- Yaskawa USA INC
- Yaskawa Europe (Japan) Inc.
Factory Tour

Yaskawa Electric accepts visitors to the Robot Village and the factory where you can see the product process.

The Robot Village

Yaskawa Electric developed Japan's first industrial robot, "WOTAN," in 1977. Since then, we have been leading the domestic and overseas industrial robot market by developing a succession of robots that automate operations such as welding, assembly, painting, and handling. In the Robot Village tour, in addition to the "Factory where robots make robots," you can also visit the "Yaskawa Innovation Center" which conveys "robot technology" and "attraction of manufacturing" and the "Yaskawa Electric History Museum" which introduces the products that the company has developed so far and the history of the Yaskawa family, including the founder, who supported the initial stage.

Nakama Plant

At the Nakama Factory, YASKAWA Electric’s medium- and large-sized general industrial robots are produced from processing parts to assembly.

Drive Center

During the tour of the inventor plant, visitors can see the automated inventor manufacturing line using robots.

The Chubu Robot Center

You can see various demonstrations using robots at the Chubu Robot Center.

Company’s Outline

Corporate Outline

As of February 29, 2020

- Corporate Name: YASKAWA Electric Corporation
- Founded: July 16, 1915
- Head Office: 2-1 Kassakamachi, Yatatanakiku, Kitakyushu 800-0004, Japan
- Phone: +81-93-645-8801 / Fax: +81-93-645-8831
- Representative: Hiroshi Ogasawara, Representative Director, President
- Capital Stock: 30.6 billion yen
- Number of Shares Outstanding: 266,490 thousand shares
- Number of Shareholders: 65,922
- Employees: Consolidated 15,179 (including temporary employees)
- Net sales: Consolidated 411,000 billion yen (Fiscal year ended February 2020)

Sales breakdown by business segment

<table>
<thead>
<tr>
<th>Business Segment</th>
<th>Revenue Breakdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Engineering</td>
<td>54.1 billion yen</td>
</tr>
<tr>
<td>Motion Control</td>
<td>177.9 billion yen</td>
</tr>
<tr>
<td>Robotics</td>
<td>152.2 billion yen</td>
</tr>
<tr>
<td>Other</td>
<td>22.9 billion yen</td>
</tr>
</tbody>
</table>

Directors and Executive Officers

- Representative Director: Junji Tsuda
- Director: Hiroshi Ogasawara
- Representative Director: Koichiro Tsukamoto
- Director: Shuji Murakami
- Managing Executive Officer: Masahiro Ogawa
- Director: Yoshikatsu Mita
- Director: Yuiichiro Kato
- Director: Akira Kumagae
- Director: Michihiko Zenke
- Director: Michael Stephen Knapke
- Director: Yasuhiro Morikawa
- Director: Junichi Nakano
- Director: Noboru Jinnai
- Director: Kenji Ueyama
- Director: Bruno Schnekenburger

- Managing Executive Officer: Yuiichiro Kato