

Japan Collaborative Robot Market Assessment, By Payload Capacity [Less Than 5 kg, 5-10 kg, Above 10 kg], By Application [Material Handling, Assembly, Machine Tending, Palletizing and De-Palletizing, Others], By End-user [Automotive, Electronics, Metals and Machining, Food and Beverage, Chemicals and Pharmaceuticals, E-Commerce and Logistics, Others], By Region, Opportunities and Forecast, FY2019-FY2033F

Market Report | 2025-04-22 | 135 pages | Market Xcel - Markets and Data

AVAILABLE LICENSES:

- Single User License \$3300.00
- Multi-User/Corporate Licence \$4500.00
- Custom Research License \$7000.00

Report description:

Japan collaborative robot (cobot) market is projected to witness a CAGR of 37.65% during the forecast period FY2026-FY2033, growing from USD 445.25 million in FY2025 to USD 5738.70 million in FY2033 owing to a blend of demographic challenges, industrial innovation, and government-led digital transformation. The country's aging population and persistent labor shortages are accelerating cobot adoption across both traditional manufacturing and emerging sectors like healthcare, logistics, and agriculture.

A major trend is the fusion of cobots with advanced technologies such as AI, 5G, and edge computing, enabling real-time decision-making, adaptive learning, and smarter robot interactions. Japanese firms are also pioneering lightweight, compact cobots tailored for high-precision tasks in electronics and pharmaceuticals. Furthermore, companies build their collaborative robots with higher safety-end.

For instance, in September 2024, Kawasaki Heavy Industries, Ltd. launched industrial robots under its CL Series. The CL Series of collaborative robots from Kawasaki Robotics feature payload capacities from 3kg to 10kg and reach from 590mm to 1000mm. Developed in partnership with Neura Robotics, the CL Series offers industrial-scale performance and speed paired with maximum protection without compromising the safety and flexibility advantages of human/robot collaboration.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Higher Automation Demand through SMEs and Aging Workforce to Fuel the Market Growth

Japanese small and medium-sized enterprises (SMEs) are increasingly adopting collaborative robots (cobots) to enhance productivity and address labor shortages. Cobots offer flexibility, ease of integration, and cost-effectiveness, making them ideal for SMEs with limited resources. By automating repetitive tasks, these robots allow human workers to focus on more complex operations, thereby improving overall efficiency and competitiveness in the market. The competition fuels the companies to introduce advanced cobots with higher payload capacity.

For instance, in December 2023, Universal Robots A/S launched its latest model in Japan with a 30-kg (66-pound) payload capacity. The UR30 is the second in the firm's new range of cobots and is built on the same architecture as its award-winning UR20 model. Unveiled at iREX 2023, the international robot exhibition, the new robot offers 25% more torque, increasing the overall performance. This makes it ideal for small and medium-sized enterprises (SMEs).

Japan's rapidly aging population has led to significant labor shortages across various industries. To mitigate this, companies are turning to cobots to perform tasks traditionally handled by human workers. These robots assist in sectors like manufacturing, healthcare, and agriculture, ensuring continuity of operations and alleviating the strain caused by a dwindling workforce.

Advanced AI and Government Initiatives to Fuel the Japan Collaborative Robot Market

The integration of artificial intelligence (AI) and machine learning (ML) into collaborative robots is revolutionizing automation in Japan. AI-powered cobots can adapt to dynamic environments, learn from human interactions, and perform complex tasks with greater precision. These advancements enhance cobots' versatility, making them suitable for applications in automotive, electronics, healthcare, and e-commerce industries.

The Japanese government actively promotes automation through initiatives like "Society 5.0," aiming to create a super-smart society by integrating cyberspace and physical space. This policy framework encourages the adoption of advanced technologies, including cobots, to address societal challenges such as labor shortages and boost economic growth. Government support includes funding for research and development, as well as incentives for companies implementing automation solutions.

In 2023, the Japanese government and industry prioritized robotics development, particularly collaborative robots (cobots), to address labor shortages and boost efficiency, with initiatives like "Society 5.0" aiming for a fully connected society with robots playing a key role.

Less Than 5 Kg Segment Holds the Largest Market Share

Based on payload capacity, the less than 5 Kg segment leads in the Japan collaborative robot market due to its suitability for precision tasks in industries like electronics and food processing. SMEs favor these lightweight cobots for their affordability and ease of integration into existing workflows. Their compact size allows deployment in space-constrained environments, and they are particularly effective in automating delicate tasks that require high accuracy. As Japanese companies continue to seek efficient automation solutions, the demand for <5kg cobots remains robust. Companies focus on delivering multiple payload capacity options to cater to different end-users.

For instance, in November 2023, YASKAWA Electric Corporation launched "MOTOMAN NEXT series (5 models with a payload capacity of 4kg, 7kg, 10kg, 20kg and 35kg)," the next generation robot that is the first in the industrial robot sector to have the autonomous adaptivity to the environment and make judgments. The MOTOMAN NEXT controller opens up the development environment for robot applications by utilizing customers' and partners' unique know-how and technologies.

Future Market Scenario (FY2026-FY2033)

- Future cobots will likely incorporate advanced AI capabilities, enabling them to perform complex tasks with greater autonomy and adaptability.
- With an aging population, cobots are expected to increasingly assist in healthcare settings, providing support in nursing homes and hospitals.
- Japanese manufacturers are projected to adopt cobots to create more adaptable production lines capable of handling diverse product ranges.
- The development of energy-efficient cobots is anticipated to contribute to environmentally friendly manufacturing practices.

Key Players Landscape and Outlook

The strategy for key players in Japan's collaborative robot market focuses on benefitting advanced automation technologies to address specific industry needs and demographic challenges. Collaborative robots (cobots) are increasingly adopted in sectors like

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

automotive, electronics, healthcare, and food processing due to their ability to enhance productivity, reduce errors, and improve operational efficiency. The aging workforce in Japan has driven demand for cobots that can assist in complex tasks without requiring highly specialized operators. Additionally, the market emphasizes developing energy-efficient robots equipped with collision detection systems and torque/force sensing technologies to ensure safety and usability. Hence, companies are focusing on delivering robots with higher payload capacity.

For instance, in August 2024, Mitsubishi Electric Corporation announced a series of robots to its broad selection of models with heavy payload capacity. Mitsubishi Electric's industrial robots are equipped with speed and precision. With a maximum reach of 2100mm (82 inches) and a maximum payload of 80kg (176 lbs.), the RV-34/50/80FR series is suitable for machine-tending and palletizing applications.

Table of Contents:

1. Project Scope and Definitions
2. Research Methodology
3. Executive Summary
4. Voice of Customers
 - 4.1. Product and Market Intelligence
 - 4.2. Mode of Brand Awareness
 - 4.3. Factors Considered in Purchase Decisions
 - 4.3.1. Payload Capacity
 - 4.3.2. Reach and Workspace
 - 4.3.3. Precision and Repeatability
 - 4.3.4. Ease of Programming
 - 4.3.5. Safety Features
 - 4.3.6. Cost and Return on Investment (ROI)
 - 4.3.7. Flexibility and Scalability
 - 4.3.8. Durability and Reliability
 - 4.3.9. Support and Service
 - 4.4. Consideration of Privacy and Regulations
5. Japan Collaborative Robot Market Outlook, FY2019-FY2033F
 - 5.1. Market Size Analysis & Forecast
 - 5.1.1. By Value
 - 5.1.2. By Volume
 - 5.2. Market Share Analysis & Forecast
 - 5.2.1. By Payload Capacity
 - 5.2.1.1. Less Than 5 kg
 - 5.2.1.2. 5-10 kg
 - 5.2.1.3. Above 10 kg
 - 5.2.2. By Application
 - 5.2.2.1. Material Handling
 - 5.2.2.2. Assembly
 - 5.2.2.3. Machine Tending
 - 5.2.2.4. Palletizing and De-Palletizing
 - 5.2.2.5. Other
 - 5.2.3. By End-user
 - 5.2.3.1. Automotive
 - 5.2.3.2. Electronics
 - 5.2.3.3. Metals and Machining

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 5.2.3.4. □Food and Beverage
- 5.2.3.5. □Chemicals and Pharmaceuticals
- 5.2.3.6. □E-commerce and Logistics
- 5.2.3.7. □Others
- 5.2.4. □By Region
- 5.2.4.1. □North [Hokkaido and Tohoku]
- 5.2.4.2. □Central [Kanto and Chubu]
- 5.2.4.3. □South [Kansai, Chugoku, Shikoku, and Kyushu & Okinawa]
- 5.2.5. □By Company Market Share Analysis (Top 5 Companies and Others - By Value, FY2025)
- 5.3. □Market Map Analysis, FY2025
- 5.3.1. □By Payload Capacity
- 5.3.2. □By Application
- 5.3.3. □By End-user
- 5.3.4. □By Region
- 6. □Demand Supply Analysis
- 7. □Import and Export Analysis
- 8. □Porter's Five Forces Analysis
- 9. □PESTLE Analysis
- 10. □Pricing Analysis
- 11. □Market Dynamics
- 11.1. □Market Drivers
- 11.2. □Market Challenges
- 12. □Market Trends and Developments
- 13. □Market Trends and Developments
- 14. □Case Studies
- 15. □Competitive Landscape
- 15.1. □Competition Matrix of Top 5 Market Leaders
- 15.2. □SWOT Analysis for Top 5 Players
- 15.3. □Key Players Landscape for Top 8 Market Players
- 15.3.1. □Universal Robots A/S
- 15.3.1.1. □Company Details
- 15.3.1.2. □Key Management Personnel
- 15.3.1.3. □Products and Services
- 15.3.1.4. □Financials (As Reported)
- 15.3.1.5. □Key Market Focus and Geographical Presence
- 15.3.1.6. □Recent Developments/Collaborations/Partnerships/Mergers and Acquisitions
- 15.3.2. □FANUC CORPORATION
- 15.3.3. □Techman Robot Inc.
- 15.3.4. □Kawasaki Heavy Industries, Ltd.
- 15.3.5. □ABB
- 15.3.6. □KUKA AG
- 15.3.7. □YASKAWA Electric Corporation
- 15.3.8. □Mitsubishi Electric Corporation
- *Companies mentioned above DO NOT hold any order as per market share and can be changed as per information available during research work.
- 16. □Strategic Recommendations
- 17. □About Us and Disclaimer

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Japan Collaborative Robot Market Assessment, By Payload Capacity [Less Than 5 kg, 5-10 kg, Above 10 kg], By Application [Material Handling, Assembly, Machine Tending, Palletizing and De-Palletizing, Others], By End-user [Automotive, Electronics, Metals and Machining, Food and Beverage, Chemicals and Pharmaceuticals, E-Commerce and Logistics, Others], By Region, Opportunities and Forecast, FY2019-FY2033F

Market Report | 2025-04-22 | 135 pages | Market Xcel - Markets and Data

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$3300.00
	Muti-User/Corporate Licence	\$4500.00
	Custom Research License	\$7000.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-03-09"/>
		Signature	<input type="text"/>