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Assembly Automation Market Forecasts to 2032 – Global Analysis By Product Type (Automated Guided Vehicles (AGVs), Conveyor Systems, Industrial Robots, Programmable Logic Controllers (PLCs), Vision Inspection Systems, Central Control Systems, Material Handling Systems, Inspection & Testing Solutions and Other Product Types), Technology, Enterprise Size, End User and By Geography

https://marketpublishers.com/r/A8A021614D80EN.html
Date: June 2025
Pages: 150
Price: US$ 4,150.00 (Single User License)
ID: A8A021614D80EN

Abstracts

According to Stratistics MRC, the Global Assembly Automation Market is accounted for $36.66 billion in 2025 and is expected to reach $76.59 billion by 2032 growing at a CAGR of 11.1% during the forecast period. Assembly automation is the process of reducing the need for human intervention by using automated machinery and systems to carry out tasks related to assembling parts or products. These systems are widely used in sectors where accuracy, speed, and repeatability are crucial, including consumer goods, electronics, automotive, and medical devices. Assembly automation increases production efficiency, improves product quality, and lowers labor costs by combining technologies like robotics, conveyors, sensors, and programmable logic controllers (PLCs). Moreover, flexible and intelligent automation solutions are becoming more and more necessary as manufacturing processes change, allowing manufacturers to quickly adjust to shifting consumer demands and product designs.

According to the Confederation of Indian Industry (CII), manufacturers in India recognize technology adoption as crucial for profitability and competitiveness. However, most currently allocate less than 10% of their budgets to such investments. The CII's Manufacturing Competitiveness Study indicates that this allocation is expected to rise to

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11–15% over the next two years, particularly in areas like the Internet of Things (IoT), robotics, and Big Data.

Market Dynamics:

Driver:

Growing need for consistency and mass production

Manufacturers are under pressure to increase production without sacrificing quality because international markets are requesting larger volumes and faster delivery. By enabling consistent and continuous operations, assembly automation drastically lowers cycle times and human error. Additionally, automated systems, for instance, can assemble thousands of components every day with little variation in the electronics and automotive manufacturing industries, guaranteeing consistency across large product batches.

Restraint:

High implementation and initial investment costs

The initial investment needed to buy robotic systems, sensors, controllers, and integration services can be high, even though automation can result in long-term operational savings. This covers not only the cost of the equipment but also the costs of the system design, installation, staff training, and infrastructure upgrades. Furthermore, these high initial costs can be a major turnoff for small and medium-sized businesses (SMEs), especially if the ROI is not immediately apparent or easily measured.

Opportunity:

Growth in battery and electric vehicle (EV) manufacturing

The electric vehicle industry's explosive growth offers assembly automation a significant opportunity. The production of EVs requires a high level of precision and safety due to the intricate assembly of batteries, power electronics, and lightweight materials. These repetitive and delicate tasks are better handled by automation systems than by human labor. Additionally, in order to meet demands for both volume and quality, investments in robotic and automated solutions are being driven by the global expansion of EV battery gigafactories.

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Threat:

Quick obsolescence of technology

Rapid technological innovation has a big impact on the assembly automation market. The development of new control systems, AI algorithms, and robotic platforms is ongoing. Businesses that spend money on automation equipment run the risk of their systems becoming antiquated in a few years, necessitating further funding for repair or replacement. Moreover, some businesses are deterred from committing to full-scale automation by this threat because they are unsure of future compatibility and performance longevity, particularly smaller manufacturers.

Covid-19 Impact:

The COVID-19 pandemic affected the assembly automation market in a variety of ways. Global lockdowns, supply chain interruptions, and labour shortages initially caused automation projects to be delayed and new system deployment to be impeded, especially in sectors like aerospace and automotive. The crisis did, however, also hasten the demand for robust, touch less, and effective manufacturing techniques, leading many businesses to reconsider their reliance on heavy lifting. This resulted in a greater use of automation technologies in industries where continuous production was essential, like consumer electronics, pharmaceuticals, and medical devices.

The industrial robots segment is expected to be the largest during the forecast period

The industrial robots segment is expected to account for the largest market share during the forecast period. These robots are essential to contemporary manufacturing processes because of their great accuracy, speed, and capacity for continuous, fatigue-free operation. Industrial robots are widely used in a variety of industries, including consumer goods, electronics, and automotive. They optimize complicated assembly processes, lower human error, and boost overall productivity. Moreover, the growing need for adaptable manufacturing systems and the combination of robotics and AI/IoT have further improved their capabilities.

The artificial intelligence (AI) segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the artificial intelligence (AI) segment is predicted to witness

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the highest growth rate. AI is revolutionizing conventional assembly lines by making adaptive process control, predictive maintenance, and real-time decision-making possible. Machine learning algorithms and data-driven insights enable AI-powered systems to improve workflows, decrease downtime, and increase productivity. Its incorporation with robotics and vision systems enables dynamic response to changes in materials or conditions and accurate quality control.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, driven mostly by strong manufacturing in nations like India, South Korea, Japan, and China. A robust industrial base, reasonably priced labor, and large investments in factory automation technologies all contribute to the region's prosperity. China leads the world in the use of automated systems and industrial robots in the consumer goods, electronics, and automotive industries. Additionally, Asia-Pacific's assembly automation market is expanding at a faster rate due to the quick rise of smart factories and the incorporation of AI and IoT into manufacturing processes.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, driven by the strong push for smart manufacturing and the quick development of new technologies. Leading automation firms and innovation hubs advancing the incorporation of robotics, AI, and IoT into production systems are based in the region. Industry adoption of automated assembly solutions is being driven by rising labor costs, a focus on reshoring manufacturing, and the desire for high-quality, customized products. Furthermore, North America's potential for growth is further enhanced by government support for skilled labor and advanced manufacturing.

Key players in the market

Some of the key players in Assembly Automation Market include Epson, Rockwell Automation, Inc., Yaskawa Electric Corporation, Schneider Electric SE, ABB Ltd, Siemens, Durr Group, Yokogawa Electric, Omron Corporation, Fanuc Corporation, Emerson, Mitsubishi Electric Corporation, Kuka AG, Staubli International and Kawasaki Heavy Industries Ltd.

Key Developments:

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In May 2025, Rockwell Automation, Inc. has announced the successful execution of a $500 million senior unsecured 364-day term loan credit agreement. This strategic financial arrangement, involves several prominent financial institutions, including Bank of America, N.A. as the Administrative Agent, U.S. Bank National Association as the Syndication Agent, and The Toronto-Dominion Bank, New York Branch and Wells Fargo Bank, National Association as Documentation Agents.

In March 2025, Yaskawa Electric Corporation and Astellas Pharma Inc signed a definitive agreement to establish a joint venture for the development of a cell therapy product manufacturing platform utilizing the dual-arm robot 'Maholo.' In addition, the joint venture will offer platform access to startups and academic institutions, fostering collaboration and innovation in the field of cell therapy.

In September 2024, Epson is set to acquire digital front-end developer Fiery in a mega deal worth around USD 591-million. The acquisition is expected to close within 2024, subject to necessary regulatory approvals and other customary closing conditions. The transaction has been valued at approximately USD 591-m. After the acquisition, Fiery will become part of the Epson group, but retain its current name and organisational structure, and continue to operate from its existing offices.

Product Types Covered:

- Automated Guided Vehicles (AGVs)
- Conveyor Systems
- Industrial Robots
- Programmable Logic Controllers (PLCs)
- Vision Inspection Systems
- Central Control Systems
- Material Handling Systems
- Inspection & Testing Solutions
- Other Product Types

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Technologies Covered:

- Artificial Intelligence (AI)
- Internet of Things (IoT)
- Machine Vision
- Robotics Integration
- Cloud Computing

Enterprise Sizes Covered:

- Large Enterprises
- Small & Medium Enterprises (SMEs)

End Users Covered:

- Automotive
- Aerospace
- Electronics & Semiconductor
- Food & Beverage
- Medical
- Metal
- Packaging
- Other End Users

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Regions Covered:

- North America
  - US
  - Canada
  - Mexico
- Europe
  - Germany
  - UK
  - Italy
  - France
  - Spain
  - Rest of Europe
- Asia Pacific
  - Japan
  - China
  - India
  - Australia
  - New Zealand
  - South Korea

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Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:
- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

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All the customers of this report will be entitled to receive one of the following free customization options:

- Company Profiling
  - Comprehensive profiling of additional market players (up to 3)
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- Regional Segmentation
  - Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)
- Competitive Benchmarking
  - Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

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