

# Factory Automation Market Forecasts to 2032 – Global Analysis By Component (Hardware, Software, and Services), Solution, End User, and By Geography

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## Abstracts

According to Statistics MRC, the Global Factory Automation Market is accounted for \$235.6 billion in 2025 and is expected to reach \$447.6 billion by 2032, growing at a CAGR of 9.6% during the forecast period. The factory automation equips manufacturing plants with robotics, control systems, sensors, and software to increase productivity, quality, and flexibility. Solutions range from standalone robots to integrated production lines and digital twins that simulate operations. Demand stems from reshoring trends, customization needs, and the push for higher efficiency. Vendors offer system integration, predictive maintenance, and AI-driven optimization to reduce downtime and scrap.

According to the International Federation of Robotics, industrial robot installations in factories reached record levels with 276,288 robots installed in 2023.

### Market Dynamics:

Driver:

Growing adoption of Industry 4.0 and smart manufacturing technologies

The primary driver for the factory automation market is the accelerating adoption of Industry 4.0 and smart manufacturing principles. The integration of cyber-physical systems, the Internet of Things (IoT), and advanced data analytics on the shop floor fuel this revolution. Companies are actively using these technologies to improve product quality, make operations more efficient than ever, and allow for mass customization. This move towards smart, connected factories is leading to a steady need for various

automation parts and software, changing how products are made today.

#### Restraint:

##### High initial investment and implementation costs

A significant barrier to widespread adoption remains the high initial investment and implementation costs associated with automation systems. This includes not only the substantial capital outlay for sophisticated hardware like robotics and sensors but also the expenses related to system integration, software licensing, and workforce retraining. For many small and medium-sized enterprises (SMEs), this financial hurdle is prohibitive, often leading to prolonged decision-making cycles and reluctance to transition from legacy systems, thereby restraining overall market growth, particularly in cost-sensitive regions.

#### Opportunity:

##### Development of cloud-based automation solutions

The development and proliferation of cloud-based automation solutions present a substantial market opportunity. These platforms lower the barrier to entry by offering scalable, subscription-based models that reduce upfront capital expenditure. Cloud systems facilitate real-time data access from anywhere, enabling superior remote monitoring, predictive maintenance, and seamless collaboration across global operations. This change allows more manufacturers, especially small and medium-sized enterprises, to use advanced data analysis and connect their entire operations, leading to greater efficiency and encouraging more companies to adopt automation.

#### Threat:

##### Intense competition from local and global automation providers

The market faces the persistent threat of intense competition from a diverse mix of global giants and nimble local automation providers. This crowded landscape fuels price wars, squeezing profit margins for all players. Furthermore, local competitors often possess deep regional knowledge and can offer tailored solutions at lower costs, challenging the dominance of international corporations. This relentless competitive pressure forces continuous investment in innovation and customer service, making it challenging for any single entity to maintain a sustained competitive advantage in the

global marketplace.

**Covid-19 Impact:**

The COVID-19 pandemic initially disrupted the factory automation market through severe supply chain bottlenecks and temporary shutdowns, stalling ongoing projects. However, it ultimately acted as a powerful catalyst for market transformation. The crisis exposed profound vulnerabilities in reliance on manual labor and traditional supply chains, compelling manufacturers to accelerate investments in automation to ensure operational resilience. This heightened focus on minimizing human dependency and building more agile, transparent production systems has led to a surge in demand for robotics and digitalization solutions post-pandemic.

The hardware segment is expected to be the largest during the forecast period

The hardware segment is expected to account for the largest market share during the forecast period, attributed to its foundational role in any automation setup, comprising essential physical components such as industrial robots, sensors, actuators, and control devices. Despite the growing importance of software, these tangible elements represent the crucial capital investments required to establish automated production lines. Additionally, the worldwide effort to upgrade old factories with new machines guarantees a steady and high demand for hardware, making it the biggest and most important source of income in the market for the near future.

The manufacturing execution systems (MES) segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the manufacturing execution systems (MES) segment is predicted to witness the highest growth rate as manufacturers increasingly seek to bridge the gap between enterprise-level planning and shop-floor operations. These systems provide real-time visibility into production processes, enabling data-driven decision-making to optimize efficiency, track quality, and manage resources. The escalating complexity of global supply chains and the need for strict regulatory compliance are driving robust adoption.

**Region with largest share:**

During the forecast period, the Asia Pacific region is expected to hold the largest market share. This leadership is anchored by China, Japan, and South Korea, which are global

manufacturing powerhouses aggressively investing in automation to maintain their competitive edge. The region benefits from strong government initiatives promoting industrial modernization, such as 'Made in China 2025.' Coupled with rising labor costs and an extensive manufacturing base, these factors create a massive, sustained demand for automation technologies, ensuring the region's continued dominance in terms of overall market value and scale.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR. This accelerated growth is driven by the rapid industrialization of emerging economies like India, Vietnam, and Thailand, which are actively attracting foreign investment and developing their manufacturing sectors. Governments in these nations are supporting this transition with favorable policies and investments in industrial infrastructure. Moreover, the ongoing strategic shift of global supply chains into the region further fuels the need for advanced automation solutions, positioning Asia Pacific for the most dynamic expansion in the coming years.

Key players in the market

Some of the key players in Factory Automation Market include Siemens AG, ABB Ltd, Rockwell Automation, Inc., Schneider Electric SE, Mitsubishi Electric Corporation, Honeywell International Inc., Emerson Electric Co., Omron Corporation, FANUC Corporation, Yokogawa Electric Corporation, KUKA AG, Robert Bosch GmbH, Keyence Corporation, Panasonic Corporation, Delta Electronics, Inc., DENSO Corporation, Cognex Corporation, Teradyne, Inc., and Yaskawa Electric Corporation.

### **Key Developments:**

In November 2025, Siemens completed the acquisition of ebm-papst's IDT, strengthening its position in factory automation and digitalization with enhanced mechatronic drive systems for conveyor and autonomous transport systems such as mobile robots and driverless vehicles.

In October 2025, Siemens and rrobot.ai launched an edge-native AI solution for manufacturing available on Siemens Xcelerator digital marketplace. It optimizes manufacturing processes in real-time using advanced AI integrated with factory automation hardware and software. This AI deployment has shown significant sustainability and efficiency gains in industrial applications.

In January 2025, Teradyne Robotics announced a strategic partnership with Analog Devices to accelerate AI and advanced robotics adoption for collaborative automation.

#### Components Covered:

Hardware

Software

Services

#### Solutions Covered:

Programmable Logic Controllers (PLC)

Machine Vision Systems

Human-Machine Interface (HMI)

Distributed Control Systems (DCS)

Supervisory Control and Data Acquisition (SCADA)

Manufacturing Execution Systems (MES)

Industrial Networks

Process Automation

#### End Users Covered:

Food & Beverage

Chemicals & Materials

Pharmaceuticals & Healthcare

Oil & Gas

Energy & Power

Semiconductor & Electronics

Aerospace & Defense

Packaging

Machine Manufacturing

Other End Users

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

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

**Free Customization Offerings:**

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)

SWOT Analysis of key players (up to 3)

**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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