

# **Motion Control Automation Market Forecasts to 2032 – Global Analysis By System Type (Open-Loop Systems, Closed-Loop Systems, Computer Numerical Control (CNC), Position Control Hardware, and Other System Types), Component, Technology, Application, End User and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Motion Control Automation Market is accounted for \$22.68 billion in 2025 and is expected to reach \$32.99 billion by 2032 growing at a CAGR of 5.5% during the forecast period. Motion control automation refers to the use of integrated hardware and software systems to precisely manage the movement of machines and mechanical components. It coordinates position, speed, torque, and acceleration through controllers, drives, motors, sensors, and feedback devices. By enabling accurate, repeatable, and synchronized motion, it enhances productivity, quality, and safety in industrial operations. Motion control automation is widely applied across robotics, packaging, automotive manufacturing, electronics assembly, material handling, and other sectors requiring high performance and precision in modern automated production environments worldwide today globally.

### **Market Dynamics:**

Driver:

Expansion of industrial robotics

Manufacturers across automotive, electronics, and heavy industries are increasingly deploying robots to improve precision, speed, and repeatability in production processes.

Motion control systems play a critical role in enabling accurate positioning, synchronized movements, and high-speed operations within robotic cells. The growing emphasis on smart factories and Industry 4.0 is further accelerating investments in advanced servo drives, motors, and controllers. Rising labor costs and workforce shortages are pushing companies toward automated solutions to maintain productivity. Continuous improvements in robot performance are increasing the demand for high-end motion control technologies. As robotics adoption broadens across sectors, motion control automation becomes an essential backbone of modern manufacturing.

Restraint:

#### Complexity of integration

Many facilities operate with legacy equipment that lacks compatibility with modern digital motion platforms. Integrating multiple components such as controllers, drives, sensors, and software requires specialized technical expertise. Customization needs vary widely across industries, increasing engineering time and deployment costs. Interoperability challenges between vendors' systems can slow implementation and limit scalability. Smaller manufacturers often struggle with the high costs and skills required for seamless integration. These factors collectively restrain the pace of motion control automation adoption.

Opportunity:

#### AI-Driven predictive maintenance

By leveraging machine learning algorithms, motion systems can analyze real-time data from motors, drives, and sensors to predict failures in advance. This approach minimizes unplanned downtime and extends equipment lifespan. Manufacturers benefit from reduced maintenance costs and improved operational efficiency. Integration of AI with motion controllers enables adaptive performance optimization under varying load conditions. The growing availability of industrial IoT platforms is supporting wider adoption of predictive analytics. As industries prioritize reliability and asset optimization, AI-enabled motion control solutions are gaining traction.

Threat:

#### Cybersecurity vulnerabilities

Cybersecurity vulnerabilities pose a growing threat to the motion control automation market. Increased connectivity of motion systems through industrial networks and cloud platforms expands the attack surface. Unauthorized access to controllers or drives can disrupt production and compromise safety. Cyber incidents may result in data breaches, operational downtime, or equipment damage. Many industrial environments still lack robust cybersecurity frameworks and skilled personnel. Compliance with evolving security standards adds further complexity for vendors and users.

### **Covid-19 Impact:**

The COVID-19 pandemic had a mixed impact on the motion control automation market. Initial lockdowns disrupted manufacturing operations and delayed automation projects across industries. Supply chain interruptions affected the availability of motors, drives, and electronic components. However, the crisis highlighted the importance of automation in ensuring business continuity. Manufacturers increasingly turned to motion-controlled systems to reduce dependence on manual labor. Remote monitoring and digital commissioning gained prominence during the pandemic period. In the post-pandemic phase, automation investments are accelerating to build more resilient and flexible production systems.

The closed-loop systems segment is expected to be the largest during the forecast period

The closed-loop systems segment is expected to account for the largest market share during the forecast period, due to its superior control capabilities. Continuous feedback allows these systems to maintain accuracy even under variable operating conditions. This makes them ideal for complex and high-speed industrial applications. Manufacturers favor closed-loop solutions to reduce scrap rates and improve consistency. Integration with digital controllers enables advanced diagnostics and performance tuning. The growing adoption of automation in high-precision industries is reinforcing demand.

The medical & healthcare segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the medical & healthcare segment is predicted to witness the highest growth rate, due to rapid technological innovation. Hospitals are increasingly adopting robotic-assisted surgery and automated diagnostic systems. Motion control enables precise positioning and repeatable movements in sensitive medical procedures.

Growing demand for minimally invasive treatments is boosting the use of advanced motion technologies. Automation also improves efficiency in pharmaceutical manufacturing and laboratory workflows. Regulatory emphasis on accuracy and reliability supports adoption of high-performance systems.

### **Region with largest share:**

During the forecast period, the Asia Pacific region is expected to hold the largest market share, due to rapid industrialization and manufacturing expansion across the region. Countries such as China, Japan, South Korea, and India are heavily investing in factory automation. Strong presence of electronics, automotive, and semiconductor industries fuels demand for motion control solutions. Government initiatives supporting smart manufacturing are accelerating adoption. Local availability of components and cost-effective production further strengthen the market.

### **Region with highest CAGR:**

Over the forecast period, the Europe region is anticipated to exhibit the highest CAGR. The region is witnessing strong adoption of advanced automation technologies across industries. Emphasis on energy efficiency and sustainable manufacturing is driving upgrades to modern motion systems. European manufacturers are investing in robotics and digital factories to enhance competitiveness. Supportive regulatory frameworks encourage the use of intelligent automation solutions. High R&D activity is fostering innovation in servo drives and control software.

### **Key players in the market**

Some of the key players in Motion Control Automation Market include Siemens AG, Moog Inc., ABB Ltd., Beckhoff Automation, Schneider Electric, Yokogawa Electric Corporation, Rockwell Automation, Allied Motion Technologies Inc., Mitsubishi Electric Corporation, Delta Electronics, Inc., Yaskawa Electric Corporation, Bosch Rexroth AG, Omron Corporation, Parker Hannifin Corporation, and FANUC Corporation.

### **Key Developments:**

In December 2025, ABB announced it has entered into an agreement to acquire IPEC, a UK-based technology company with more than 30 years of expertise in electrical diagnostics. IPEC's advanced monitoring systems track critical electrical infrastructure around the clock, using AI and advanced analytics to predict failures that could result in

multi-million-dollar losses, safety risks or extended outages for industries such as data centers, healthcare, utilities and manufacturing. The transaction is expected to close in the first quarter of 2026.

In July 2025, Siemens AG announced that it has completed the acquisition of Dotmatics, a leading provider of Life Sciences R&D software headquartered in Boston and Portfolio Company of global software investor Insight Partners, for an enterprise value of \$5.1 billion. With the transaction now completed, Dotmatics will form part of Siemens' Digital Industries Software business, marking a significant expansion of Siemens' industry-leading Product Lifecycle Management (PLM) portfolio into the rapidly growing and complementary Life Sciences market.

#### System Types Covered:

Open-Loop Systems

Closed-Loop Systems

Computer Numerical Control (CNC)

Position Control Hardware

Other System Types

#### Components Covered:

Hardware

Software

Services

#### Technologies Covered:

Electromechanical

Pneumatic

Hydraulic

Digital vs Analog

Networked/IIoT-Enabled Motion Control

Hybrid Systems

#### Applications Covered:

Material Handling & Conveying

Robotics & Automation

Packaging & Labelling

Machine Tools & CNC Machines

Semiconductor & Electronics

Inspection & Testing Systems

Medical Devices & Healthcare Equipment

Automotive Assembly

Other Applications

#### End Users Covered:

Automotive

Aerospace & Defense

Semiconductor & Electronics

Manufacturing & Industrial Automation

Medical & Healthcare

Food & Beverages

Pharmaceuticals & Cosmetics

Metals & Machinery Manufacturing

Logistics & Warehousing

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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