

# Motion Control Systems Market Forecasts to 2034 – Global Analysis By Component (Motors, Drives, Controllers, Sensors, Software Platforms and Other Components), System Type, Industry, Application, End User and Geography

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## Abstracts

According to Statistics MRC, the Global Motion Control Systems Market is accounted for \$18.0 billion in 2026 and is expected to reach \$39.8 billion by 2034 growing at a CAGR of 10.4% during the forecast period. Motion control systems are technologies used to precisely regulate the movement of machinery and equipment in automated agricultural and industrial operations. These systems integrate controllers, actuators, drives, and feedback sensors to ensure accurate positioning, speed, and torque control. In agriculture, they are applied in robotics, irrigation systems, harvesting machines, and processing equipment. Motion control improves efficiency, precision, and repeatability in automated tasks. Increasing adoption of robotics and smart machinery is driving growth in motion control technologies across modern agriculture and manufacturing sectors.

### Market Dynamics:

Driver:

Growth in industrial robotics

Expansion of industrial robotics across manufacturing, logistics, and assembly operations is significantly driving demand for motion control systems globally. These systems are essential for achieving precise positioning, speed regulation, and coordinated robotic movement in automated environments. Increasing deployment of robotic arms in production lines is further strengthening adoption. Manufacturers are

prioritizing high-precision motion technologies to improve operational accuracy and productivity. Integration of robotics with advanced control systems is enhancing real-time performance capabilities. Continuous industrial automation investments are accelerating technology penetration.

#### Restraint:

##### High system calibration complexity

Complex calibration requirements associated with motion control systems remain a key restraint for market expansion. These systems require precise tuning of motors, sensors, and controllers to achieve optimal operational performance. Industrial users often face challenges in maintaining synchronization across multi-axis systems. Skilled technical expertise is essential for installation and ongoing system adjustments. Calibration errors can lead to reduced efficiency and operational inconsistencies. Integration with existing automation infrastructure further increases technical complexity.

#### Opportunity:

##### AI-enhanced motion optimization

Artificial intelligence enables dynamic adjustment of speed, torque, and positioning parameters for improved operational efficiency. This is driving AI-enhanced motion optimization as manufacturers increasingly integrate machine learning algorithms, predictive control systems, and adaptive motion technologies to enhance precision, reduce energy consumption, and improve productivity across automated industrial environments globally. Rising demand for intelligent automation solutions is further strengthening adoption. Continuous innovation in AI-based control systems is expanding application potential.

#### Threat:

##### Rapid technological obsolescence

Continuous innovation in robotics and automation technologies may render existing systems outdated within shorter life cycles. Manufacturers face pressure to frequently upgrade hardware and software components. High replacement costs may impact customer investment decisions. Fast-paced innovation cycles increase competitive

pressure across vendors. Compatibility challenges with older systems also affect long-term usability. These factors act as a notable market threat.

#### Covid-19 Impact:

The COVID-19 pandemic disrupted industrial production activities and delayed automation investments in several sectors globally. Supply chain interruptions affected the availability of motion control components and manufacturing equipment. However, the crisis also accelerated automation adoption as industries aimed to reduce dependency on manual labor. Demand for robotics and smart manufacturing systems gradually increased during the recovery phase. Companies focused on enhancing operational resilience through automation upgrades. Post-pandemic industrial modernization initiatives further strengthened market demand.

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

The motors segment is expected to account for the largest market share during the forecast period as automated production equipment globally. Their widespread industrial application supports strong and consistent demand. Increasing adoption of automated manufacturing systems further strengthens segment dominance. Advancements in motor efficiency and performance capabilities are enhancing operational reliability. Integration across diverse industrial automation systems supports sustained growth.

The servo motion systems segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the servo motion systems segment is predicted to witness the highest growth rate due to energy-efficient motion control solutions across advanced industrial automation and robotics applications worldwide. Servo systems enable superior accuracy and real-time responsiveness in complex motion operations. This is driving servo motion systems segment growth as manufacturers increasingly deploy integrated servo solutions, intelligent control algorithms, and adaptive motion technologies to improve productivity and reduce operational inefficiencies across smart manufacturing environments globally. Expanding adoption of automation-intensive industries is further accelerating demand.

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

During the forecast period, the North America region is expected to hold the largest market share owing to high adoption of robotics technologies across manufacturing sectors in the United States and Canada. The region benefits from advanced manufacturing ecosystems and continuous investment in smart factory development. Presence of leading automation technology providers further strengthens innovation and deployment. Companies are increasingly adopting high-precision motion control systems to improve productivity. Strong focus on industrial modernization supports market expansion.

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

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR driven by increasing adoption of robotics and automation technologies across countries such as China, Japan, India, South Korea, and Southeast Asia. Manufacturers in the region are investing heavily in advanced motion control solutions to improve production efficiency. Government initiatives supporting industrial modernization further accelerate adoption. Rising demand for cost-efficient automation systems strengthens market growth. Expansion of smart manufacturing infrastructure continues across emerging economies.

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

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

### **Key Developments:**

In April 2026, Siemens AG announced a massive expansion of its Industrial Edge ecosystem at Hannover Messe, highlighted by the introduction of its all-inclusive Industrial AI Suite. This infrastructure rollout simplifies the lifecycle management of decentralized AI models, allowing plant engineers to scale predictive maintenance and automated visual quality inspection applications across multiple production plants while preserving air-gapped system security.

In November 2025, ABB Ltd. signed a definitive strategic partnership agreement with a specialized edge-computing hardware provider to embed neural processing units

directly into its next-generation OmniCore controller family. This technical collaboration allows industrial welding and painting robots to adaptively modify their paths in real time based on localized computer vision analytics, preventing mechanical collision disruptions without needing centralized server loops.

#### Components Covered:

Motors

Drives

Controllers

Sensors

Software Platforms

Other Components

#### System Types Covered:

Open Loop Motion Systems

Closed Loop Motion Systems

Servo Motion Systems

Stepper Motion Systems

Other System Types

#### Industries Covered:

Automotive Industry

Electronics Industry

Manufacturing Industry

Aerospace and Defense Industry

Healthcare Equipment Industry

Other Industries

Applications Covered:

Robotics Applications

CNC Machine Applications

Material Handling Applications

Packaging Applications

Other Applications

End Users Covered:

Industrial Manufacturing Enterprises

SME Manufacturing Units

Automation Solution Providers

Infrastructure Development Companies

Other End Users

Regions Covered:

North America

United States

Canada

Mexico

## Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

## Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of 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 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- 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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