

# **Modular Automation Market Forecasts to 2032 – Global Analysis By Type (Distributed Control Systems (DCS) and Module Type Packages (MTP)), Component (Hardware, Software and Services), Level of Automation, Enterprise Size, Application, End User and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Modular Automation Market is accounted for \$5.2 billion in 2025 and is expected to reach \$9.2 billion by 2032 growing at a CAGR of 8.6% during the forecast period. Modular automation is a flexible approach to industrial automation that uses standardized, interchangeable modules to control and manage individual processes or units within a system. Each module can operate independently and be easily integrated or reconfigured, enabling faster deployment, reduced downtime, and easier scalability. This approach supports greater customization, enhances operational efficiency, and simplifies maintenance, making it ideal for industries requiring agile and adaptive manufacturing solutions.

According to the International Federation of Robotics (IFR), there were approximately 4.28 million industrial robots in operation worldwide by the end of 2023

Market Dynamics:

Driver:

Adoption of industry 4.0 technologies

The adoption of Industry 4.0 technologies is propelling the modular automation market,

as manufacturers increasingly seek interconnected, data-driven systems that enhance operational flexibility and efficiency. Industry 4.0 integrates digital technologies such as IoT, artificial intelligence, and advanced robotics, enabling real-time data exchange and predictive maintenance. These advancements allow for rapid adaptation to changing production requirements, improved quality assurance, and compliance with regulatory standards. Furthermore, the alignment with smart manufacturing trends ensures that modular automation remains at the forefront of innovation.

#### Restraint:

##### High initial investment for integration

The upfront costs associated with purchasing, configuring, and implementing modular systems can be substantial, particularly for small and medium-sized enterprises. Additionally, aligning new automation modules with existing legacy infrastructure often requires specialized expertise, leading to further expenses in employee training and system customization. Moreover, the complexity of integration may result in operational delays, making some organizations hesitant to adopt modular automation despite its long-term efficiency benefits.

#### Opportunity:

##### Technological advancements in module type packages (MTP)

MTPs enable enhanced flexibility and scalability by allowing businesses to tailor automation solutions to specific operational needs. Moreover, these advancements facilitate the seamless integration and upgrading of both hardware and software modules, accelerating time-to-market for new products and services. As industries increasingly prioritize agility and cost-effectiveness, the evolution of MTPs supports streamlined operations, rapid customization, and the ability to respond swiftly to market demands, thereby driving widespread adoption.

#### Threat:

##### Cybersecurity vulnerabilities

Cybersecurity vulnerabilities pose a critical threat to the modular automation market as the integration of connected devices and digital technologies exposes systems to potential cyberattacks. The increased connectivity inherent in Industry 4.0 and IoT-

enabled automation heightens the risk of unauthorized access, data breaches, and operational disruptions. Additionally, as automation networks expand, the complexity of securing every component grows, necessitating robust cybersecurity protocols and continuous monitoring.

#### Covid-19 Impact:

The Covid-19 pandemic had a mixed impact on the modular automation market. On one hand, demand for automation surged as companies sought to minimize human contact and maintain production amid labor shortages and social distancing mandates. This accelerated the adoption of automated solutions to ensure business continuity. On the other hand, the pandemic disrupted global supply chains, causing delays in equipment procurement and project implementation, while economic uncertainties led to reduced capital investments in new automation projects. Overall, the pandemic highlighted the importance of automation for operational resilience.

The fully automatic systems segment is expected to be the largest during the forecast period

The fully automatic systems segment is expected to account for the largest market share during the forecast period due to their advanced capabilities in streamlining operations, minimizing human intervention, and delivering consistent output quality. Furthermore, industries are increasingly adopting fully automatic systems to boost productivity, reduce labor costs, and enhance safety. The ability of these systems to integrate seamlessly with other digital technologies, such as IoT and AI, further amplifies their value proposition.

The software segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the software segment is predicted to witness the highest growth rate, driven by the rising need for intelligent process control, real-time data analytics, and seamless integration with enterprise systems. Additionally, advancements in automation software enable predictive maintenance, remote monitoring, and adaptive process optimization, which are critical for maximizing equipment uptime and operational flexibility. As manufacturers increasingly prioritize digital transformation, investment in robust and scalable software platforms is expected to accelerate, fueling the segment's rapid expansion.

#### Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, fueled by rapid industrialization, expanding manufacturing bases, and strong government initiatives supporting automation across countries such as China, Japan, and India. Moreover, the region's robust electronics, automotive, and consumer goods sectors are driving demand for flexible and scalable automation solutions. Additionally, rising labor costs and the need for enhanced operational efficiency are prompting businesses to invest in modular automation, solidifying Asia Pacific's leadership.

#### Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, supported by increasing automation adoption, technological advancements, and government policies promoting smart manufacturing. The region's dynamic industrial landscape, growing demand for customized production, and significant investments in infrastructure modernization are accelerating the deployment of modular automation systems. As companies in Asia Pacific strive for greater efficiency and competitiveness, the region is set to lead global market expansion with the fastest adoption of advanced automation technologies.

#### Key players in the market

Some of the key players in Modular Automation Market include Siemens AG, ABB Ltd., Rockwell Automation, Inc., Schneider Electric SE, Mitsubishi Electric Corporation, Honeywell International Inc., Emerson Electric Co., Bosch Rexroth AG, FANUC Corporation, Yokogawa Electric Corporation, Omron Corporation, Delta Electronics, Inc., Beckhoff Automation GmbH & Co. KG, Mitsubishi Heavy Industries, Ltd., National Instruments Corporation, Bosch Automation Technology, Keyence Corporation, and Pilz GmbH & Co. KG.

#### Key Developments:

In May 2025, ABB and Red Hat announced an extended collaboration to develop automation systems for the future of industrial IT, enabling more secure and modular deployment of control applications for process industries. The collaboration builds on ABB's automation leadership and Red Hat's industry-leading enterprise open source platforms, combining industrial innovation and digital capabilities – including data analytics and artificial intelligence – to help pave the way towards autonomous operations.

In April 2025, Rockwell Automation, the world's largest company dedicated to industrial automation and digital transformation, and Amazon Web Services, Inc. (AWS), today announced they are working together to help streamline and accelerate the digital transformation of the manufacturing industry. By combining Rockwell's operational technology (OT) with AWS's advanced cloud services and global infrastructure, manufacturers will be equipped with scalable, secure, and flexible cloud solutions that help optimize asset performance, increase operational visibility, and deliver actionable insights from raw data.

In March 2025, Siemens announced that it has completed the acquisition of Altair Engineering Inc., a leading provider of software in the industrial simulation and analysis market, for an enterprise value of approximately USD 10 billion. With this acquisition, Siemens extends its leadership in simulation and industrial artificial intelligence (AI) by adding new capabilities in mechanical and electromagnetic simulation, high-performance computing (HPC), data science and AI.

#### Types Covered:

Distributed Control Systems (DCS)

Module Type Packages (MTP)

#### Components Covered:

Hardware

Software

Services

#### Level of Automations Covered:

Semi-Automatic Systems

Fully Automatic Systems

**Enterprise Sizes Covered:**

Small & Medium Enterprises (SMEs)

Large Enterprises

**Applications Covered:**

Assembly Systems

Material Handling

Packaging & Palletizing

Process Automation

Quality Control

**End Users Covered:**

Automotive & Transportation

Electronics & Semiconductor

Food & Beverage

Pharmaceuticals & Life Sciences

Chemicals & Materials

Energy & Utilities

Aerospace & Defense

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

## Contents

### **1 EXECUTIVE SUMMARY**

### **2 PREFACE**

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
  - 2.4.1 Data Mining
  - 2.4.2 Data Analysis
  - 2.4.3 Data Validation
  - 2.4.4 Research Approach
- 2.5 Research Sources
  - 2.5.1 Primary Research Sources
  - 2.5.2 Secondary Research Sources
  - 2.5.3 Assumptions

### **3 MARKET TREND ANALYSIS**

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Product Analysis
- 3.7 Technology Analysis
- 3.8 Application Analysis
- 3.9 End User Analysis
- 3.10 Emerging Markets
- 3.11 Impact of Covid-19

### **4 PORTERS FIVE FORCE ANALYSIS**

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants

#### 4.5 Competitive rivalry

### **5 GLOBAL MODULAR AUTOMATION MARKET, BY TYPE**

#### 5.1 Introduction

#### 5.2 Distributed Control Systems (DCS)

#### 5.3 Module Type Packages (MTP)

### **6 GLOBAL MODULAR AUTOMATION MARKET, BY COMPONENT**

#### 6.1 Introduction

#### 6.2 Hardware

##### 6.2.1 Controllers

##### 6.2.2 Drives & Motors

##### 6.2.3 Input/Output (I/O) Modules

##### 6.2.4 Sensors & Actuators

##### 6.2.5 Safety Components

##### 6.2.6 Modular Conveyor & Transfer Systems

##### 6.2.7 Other Hardware

#### 6.3 Software

##### 6.3.1 Control & Programming Platforms

##### 6.3.2 Data Analytics & AI/ML Software

##### 6.3.3 Integration & Cloud-based Software

#### 6.4 Services

##### 6.4.1 Installation & Integration

##### 6.4.2 Maintenance & Support

##### 6.4.3 Consulting Services

### **7 GLOBAL MODULAR AUTOMATION MARKET, BY LEVEL OF AUTOMATION**

#### 7.1 Introduction

#### 7.2 Semi-Automatic Systems

#### 7.3 Fully Automatic Systems

### **8 GLOBAL MODULAR AUTOMATION MARKET, BY ENTERPRISE SIZE**

#### 8.1 Introduction

#### 8.2 Small & Medium Enterprises (SMEs)

#### 8.3 Large Enterprises

## **9 GLOBAL MODULAR AUTOMATION MARKET, BY APPLICATION**

- 9.1 Introduction
- 9.2 Assembly Systems
- 9.3 Material Handling
- 9.4 Packaging & Palletizing
- 9.5 Process Automation
- 9.6 Quality Control

## **10 GLOBAL MODULAR AUTOMATION MARKET, BY END USER**

- 10.1 Introduction
- 10.2 Automotive & Transportation
- 10.3 Electronics & Semiconductor
- 10.4 Food & Beverage
- 10.5 Pharmaceuticals & Life Sciences
- 10.6 Chemicals & Materials
- 10.7 Energy & Utilities
- 10.8 Aerospace & Defense
- 10.9 Logistics & Warehousing
- 10.10 Other End Users

## **11 GLOBAL MODULAR AUTOMATION MARKET, BY GEOGRAPHY**

- 11.1 Introduction
- 11.2 North America
  - 11.2.1 US
  - 11.2.2 Canada
  - 11.2.3 Mexico
- 11.3 Europe
  - 11.3.1 Germany
  - 11.3.2 UK
  - 11.3.3 Italy
  - 11.3.4 France
  - 11.3.5 Spain
  - 11.3.6 Rest of Europe
- 11.4 Asia Pacific
  - 11.4.1 Japan

- 11.4.2 China
- 11.4.3 India
- 11.4.4 Australia
- 11.4.5 New Zealand
- 11.4.6 South Korea
- 11.4.7 Rest of Asia Pacific
- 11.5 South America
  - 11.5.1 Argentina
  - 11.5.2 Brazil
  - 11.5.3 Chile
  - 11.5.4 Rest of South America
- 11.6 Middle East & Africa
  - 11.6.1 Saudi Arabia
  - 11.6.2 UAE
  - 11.6.3 Qatar
  - 11.6.4 South Africa
  - 11.6.5 Rest of Middle East & Africa

## **12 KEY DEVELOPMENTS**

- 12.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 12.2 Acquisitions & Mergers
- 12.3 New Product Launch
- 12.4 Expansions
- 12.5 Other Key Strategies

## **13 COMPANY PROFILING**

- 13.1 Siemens AG
- 13.2 ABB Ltd.
- 13.3 Rockwell Automation, Inc.
- 13.4 Schneider Electric SE
- 13.5 Mitsubishi Electric Corporation
- 13.6 Honeywell International Inc.
- 13.7 Emerson Electric Co.
- 13.8 Bosch Rexroth AG
- 13.9 FANUC Corporation
- 13.10 Yokogawa Electric Corporation
- 13.11 Omron Corporation

- 13.12 Delta Electronics, Inc.
- 13.13 Beckhoff Automation GmbH & Co. KG
- 13.14 Mitsubishi Heavy Industries, Ltd.
- 13.15 National Instruments Corporation
- 13.16 Bosch Automation Technology
- 13.17 Keyence Corporation
- 13.18 Pilz GmbH & Co. KG

## List Of Tables

### LIST OF TABLES

Table 1 Global Modular Automation Market Outlook, By Region (2024-2032) (\$MN)

Table 2 Global Modular Automation Market Outlook, By Type (2024-2032) (\$MN)

Table 3 Global Modular Automation Market Outlook, By Distributed Control Systems (DCS) (2024-2032) (\$MN)

Table 4 Global Modular Automation Market Outlook, By Module Type Packages (MTP) (2024-2032) (\$MN)

Table 5 Global Modular Automation Market Outlook, By Component (2024-2032) (\$MN)

Table 6 Global Modular Automation Market Outlook, By Hardware (2024-2032) (\$MN)

Table 7 Global Modular Automation Market Outlook, By Controllers (2024-2032) (\$MN)

Table 8 Global Modular Automation Market Outlook, By Drives & Motors (2024-2032) (\$MN)

Table 9 Global Modular Automation Market Outlook, By Input/Output (I/O) Modules (2024-2032) (\$MN)

Table 10 Global Modular Automation Market Outlook, By Sensors & Actuators (2024-2032) (\$MN)

Table 11 Global Modular Automation Market Outlook, By Safety Components (2024-2032) (\$MN)

Table 12 Global Modular Automation Market Outlook, By Modular Conveyor & Transfer Systems (2024-2032) (\$MN)

Table 13 Global Modular Automation Market Outlook, By Other Hardware (2024-2032) (\$MN)

Table 14 Global Modular Automation Market Outlook, By Software (2024-2032) (\$MN)

Table 15 Global Modular Automation Market Outlook, By Control & Programming Platforms (2024-2032) (\$MN)

Table 16 Global Modular Automation Market Outlook, By Data Analytics & AI/ML Software (2024-2032) (\$MN)

Table 17 Global Modular Automation Market Outlook, By Integration & Cloud-based Software (2024-2032) (\$MN)

Table 18 Global Modular Automation Market Outlook, By Services (2024-2032) (\$MN)

Table 19 Global Modular Automation Market Outlook, By Installation & Integration (2024-2032) (\$MN)

Table 20 Global Modular Automation Market Outlook, By Maintenance & Support (2024-2032) (\$MN)

Table 21 Global Modular Automation Market Outlook, By Consulting Services (2024-2032) (\$MN)

Table 22 Global Modular Automation Market Outlook, By Level of Automation (2024-2032) (\$MN)

Table 23 Global Modular Automation Market Outlook, By Semi-Automatic Systems (2024-2032) (\$MN)

Table 24 Global Modular Automation Market Outlook, By Fully Automatic Systems (2024-2032) (\$MN)

Table 25 Global Modular Automation Market Outlook, By Enterprise Size (2024-2032) (\$MN)

Table 26 Global Modular Automation Market Outlook, By Small & Medium Enterprises (SMEs) (2024-2032) (\$MN)

Table 27 Global Modular Automation Market Outlook, By Large Enterprises (2024-2032) (\$MN)

Table 28 Global Modular Automation Market Outlook, By Application (2024-2032) (\$MN)

Table 29 Global Modular Automation Market Outlook, By Assembly Systems (2024-2032) (\$MN)

Table 30 Global Modular Automation Market Outlook, By Material Handling (2024-2032) (\$MN)

Table 31 Global Modular Automation Market Outlook, By Packaging & Palletizing (2024-2032) (\$MN)

Table 32 Global Modular Automation Market Outlook, By Process Automation (2024-2032) (\$MN)

Table 33 Global Modular Automation Market Outlook, By Quality Control (2024-2032) (\$MN)

Table 34 Global Modular Automation Market Outlook, By End User (2024-2032) (\$MN)

Table 35 Global Modular Automation Market Outlook, By Automotive & Transportation (2024-2032) (\$MN)

Table 36 Global Modular Automation Market Outlook, By Electronics & Semiconductor (2024-2032) (\$MN)

Table 37 Global Modular Automation Market Outlook, By Food & Beverage (2024-2032) (\$MN)

Table 38 Global Modular Automation Market Outlook, By Pharmaceuticals & Life Sciences (2024-2032) (\$MN)

Table 39 Global Modular Automation Market Outlook, By Chemicals & Materials (2024-2032) (\$MN)

Table 40 Global Modular Automation Market Outlook, By Energy & Utilities (2024-2032) (\$MN)

Table 41 Global Modular Automation Market Outlook, By Aerospace & Defense (2024-2032) (\$MN)

Table 42 Global Modular Automation Market Outlook, By Logistics & Warehousing (2024-2032) (\$MN)

Table 43 Global Modular Automation Market Outlook, By Other End Users (2024-2032) (\$MN)

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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