

Global Manufacturing Automation Market Size Study, by Technology, Component, Deployment, End-use, Industry Vertical, Application, Solution, Enterprise Size, and Regional Forecasts 2022-2032

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Abstracts

The Global Manufacturing Automation Market was valued at approximately USD 12.28 billion in 2023 and is projected to expand significantly at a CAGR of 9.7% during the forecast period from 2024 to 2032. As industries across multiple verticals strive for enhanced efficiency, reduced operational costs, and improved production output, automation has emerged as a critical enabler of industrial transformation. Advanced technologies such as Artificial Intelligence (AI), Industrial Internet of Things (IIoT), Robotics, and Digital Twins are redefining how manufacturing ecosystems operate, fostering the demand for highly adaptive and intelligent automation solutions.

The integration of machine learning algorithms, cloud-based analytics, and predictive maintenance capabilities is significantly influencing the manufacturing automation landscape. The advent of smart factories, robotic process automation (RPA), and collaborative robots (cobots) is further driving the adoption of automation in manufacturing environments. Enterprises are rapidly deploying automated guided vehicles (AGVs), digital manufacturing platforms, and cyber-physical systems to streamline workflows and maximize productivity. Moreover, the rising demand for sustainable and energy-efficient production systems is pushing manufacturers to embrace green automation technologies that reduce waste and optimize resource utilization.

With the growing focus on Industry 4.0 and digital transformation initiatives, manufacturing units are increasingly investing in automation solutions that integrate AI-powered process control systems, sensor-based real-time monitoring, and autonomous

decision-making frameworks. However, while automation offers significant benefits, challenges such as high initial investment costs, cybersecurity vulnerabilities, and workforce displacement concerns continue to pose constraints to market expansion. The necessity for robust human-machine collaboration models and workforce upskilling programs is becoming increasingly evident as automation adoption scales.

North America dominates the global manufacturing automation market, backed by large-scale industrial digitization, strong governmental initiatives for smart manufacturing, and rapid adoption of AI-driven automation tools. The Asia-Pacific region is anticipated to witness the fastest growth, with China, Japan, and India emerging as key hubs for advanced manufacturing and factory automation. Europe, driven by stringent regulatory frameworks and aggressive R&D investments in robotics and industrial AI, continues to be a frontrunner in industrial automation adoption across automotive, aerospace, and energy sectors.

Major Market Players Included in This Report:

Siemens AG

Rockwell Automation, Inc.

Schneider Electric SE

ABB Ltd.

Mitsubishi Electric Corporation

Honeywell International Inc.

Yokogawa Electric Corporation

FANUC Corporation

General Electric Company

Emerson Electric Co.

OMRON Corporation

Keyence Corporation

Bosch Rexroth AG

Universal Robots A/S

KUKA AG

The Detailed Segments and Sub-Segments of the Market Are Explained Below:

By Technology:

Artificial Intelligence (AI)

Industrial Internet of Things (IIoT)

Robotics & Automation

Digital Twins

Big Data & Analytics

Cyber-Physical Systems

Others

By Component:

Hardware

Sensors

Controllers

Actuators

Others

Software

AI & Analytics Platforms

Digital Twin Solutions

Process Control Software

Services

Consulting & Implementation

Maintenance & Support

By Deployment:

On-premise

Cloud-based

By End-use:

Discrete Manufacturing

Process Manufacturing

By Industry Vertical:

Automotive

Aerospace & Defense

Electronics & Semiconductors

Healthcare & Pharmaceuticals

Energy & Utilities

Food & Beverages

Chemicals

Heavy Industries

Others

By Application:

Production & Assembly

Quality Control & Inspection

Inventory & Supply Chain Management

Predictive Maintenance

Logistics & Material Handling

Others

By Solution:

Robotic Process Automation (RPA)

Industrial Control Systems (ICS)

Computer Numerical Control (CNC) Machines

Automated Guided Vehicles (AGVs)

Human-Machine Interface (HMI)

SCADA Systems

Others

By Enterprise Size:

Small & Medium Enterprises (SMEs)

Large Enterprises

By Region:

North America:

U.S.

Canada

Europe:

UK

Germany

France

Spain

Italy

Rest of Europe (ROE)

Asia Pacific:

China

India

Japan

Australia

South Korea

Rest of Asia Pacific (RoAPAC)

Latin America:

Brazil

Mexico

Middle East & Africa:

Saudi Arabia

South Africa

Rest of Middle East & Africa (RoMEA)

Years Considered for the Study:

Historical Year: 2022

Base Year: 2023

Forecast Period: 2024 to 2032

Key Takeaways:

Global Manufacturing Automation Market Size Study, by Technology, Component, Deployment, End-use, Industry Ver...

Market Estimates & Forecasts spanning 10 years from 2022 to 2032.

Annual revenue insights at both global and regional levels.

Competitive landscape analysis with key market players and business strategies.

Comprehensive geographical analysis with country-specific insights.

Future market trends and opportunities for stakeholders.

Comprehensive demand-side and supply-side market dynamics analysis.

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