

IoT-Enabled Industrial Devices Market Forecasts to 2034 – Global Analysis By Device Type (Smart Sensors, Connected Actuators, Industrial Robots, IoT-Enabled Controllers and Smart Meters), Connectivity Technology, Deployment Model, Application, End User and By Geography

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Abstracts

According to Statistics MRC, the Global IoT-Enabled Industrial Devices Market is accounted for \$59.7 billion in 2026 and is expected to reach \$114.6 billion by 2034 growing at a CAGR of 8.5% during the forecast period. Industrial devices integrated with IoT technology are reshaping operational systems by linking equipment, sensors, and controllers via internet connectivity. These intelligent tools continuously gather live data related to performance metrics like heat, pressure, and utilization, helping organizations implement predictive maintenance and minimize disruptions. When combined with cloud computing and data analytics, they enable better decision-making, efficient resource management, and enhanced productivity. Sectors including automotive, energy, and pharmaceuticals leverage these systems to improve workflows and maintain product quality. Additionally, IoT-based devices facilitate automation and remote supervision, empowering companies to boost efficiency, lower costs, and stay competitive in dynamic industrial landscapes.

According to ITU (International Telecommunication Union), IoT-enabled devices in agriculture are included in the 25 billion connected devices projected worldwide by 2030.

Market Dynamics:

Driver:

Increasing adoption of industrial automation

Rising implementation of automation across industries is significantly fueling the growth of IoT-enabled industrial devices. Organizations are increasingly relying on automated solutions to boost efficiency, limit manual involvement, and ensure precision in operations. IoT-integrated devices enable interconnected systems, allowing machines to exchange data and support real-time process tracking. These smart tools enhance manufacturing by delivering actionable insights that improve workflow efficiency and reduce operational errors. As businesses focus on maximizing output while controlling costs, the combination of automation and IoT technologies is expanding rapidly, leading to greater adoption of connected devices in various industrial sectors worldwide.

Restraint:

High implementation and initial investment costs

Significant upfront investment requirements act as a key limitation for the adoption of IoT-enabled industrial devices. Establishing IoT systems involves considerable spending on hardware components, connectivity infrastructure, software tools, and integration processes. Smaller businesses, in particular, find it difficult to justify these expenses within constrained budgets. Moreover, additional costs related to modernizing outdated machinery and training personnel increase the overall financial burden. Although IoT technologies provide long-term operational advantages, the initial costs can discourage rapid implementation. This challenge is especially evident in developing economies, where companies tend to be more cautious about committing to expensive technological upgrades.

Opportunity:

Expansion of smart manufacturing initiatives

The growing adoption of smart manufacturing practices offers strong growth potential for IoT-enabled industrial devices. Companies are increasingly integrating technologies like automation, artificial intelligence, and IoT to build advanced and connected production environments. IoT devices support these systems by enabling continuous monitoring, predictive insights, and efficient communication across machinery. These benefits help improve productivity, reduce equipment downtime, and maintain

consistent product quality. Support from governments and industry bodies promoting Industry 4.0 further accelerates this trend. As organizations focus on digital transformation and innovation, the demand for IoT-driven industrial devices is expected to expand rapidly across global markets.

Threat:

Increasing cybersecurity threats and attacks

Growing cyber risks and digital attacks present a serious challenge for the IoT-enabled industrial devices market. Connected systems handling critical data are increasingly targeted by hackers, leading to threats such as ransomware incidents, data leaks, and unauthorized access. These attacks can interrupt operations and result in substantial financial damage. Many industrial IoT environments still lack strong security mechanisms, making them more susceptible to breaches. Mitigating these risks requires ongoing surveillance, advanced protection technologies, and specialized skills. The increasing complexity of cyber threats creates hesitation among businesses, thereby restricting adoption and slowing the expansion of IoT-enabled industrial solutions worldwide.

Covid-19 Impact:

The outbreak of COVID-19 had both negative and positive effects on the IoT-enabled industrial devices market. In the early stages, disruptions in global supply chains, factory closures, and workforce limitations hindered the implementation of IoT systems. Travel restrictions and economic uncertainty delayed several industrial initiatives. Despite these challenges, the pandemic increased the need for automation, remote operations, and digital solutions. Businesses turned to IoT-enabled devices to sustain productivity while reducing physical workforce dependency. The importance of real-time monitoring and predictive maintenance also grew significantly. Over time, the situation accelerated digital transformation, boosting long-term demand for IoT-based industrial solutions.

The smart sensors segment is expected to be the largest during the forecast period

The smart sensors segment is expected to account for the largest market share during the forecast period because of their fundamental role in capturing and transmitting real-time data. They are extensively utilized in various industries to monitor factors like temperature, pressure, movement, and environmental conditions, supporting

automation and efficient operations. These sensors deliver precise and continuous information, enabling predictive maintenance, minimizing downtime, and improving overall productivity. As key components of connected industrial systems, they supply essential data for analytics and informed decision-making. Their broad application across sectors such as manufacturing, energy, and logistics ensures their leading position and sustained demand in the evolving industrial landscape.

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

Over the forecast period, the agriculture segment is predicted to witness the highest growth rate, driven by the increasing implementation of smart farming technologies. Farmers are adopting IoT-enabled systems such as intelligent sensors, automated irrigation setups, and monitoring tools to enhance productivity and resource utilization. These technologies allow continuous tracking of soil quality, climatic conditions, and crop development, enabling better decisions for irrigation, fertilization, and pest management. Rising concerns over food security and the need for sustainable agricultural practices are encouraging IoT adoption. In addition, government initiatives supporting precision agriculture and growing agri-tech investments are significantly contributing to market expansion.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, supported by its extensive industrial network and rapid technological advancement. Major economies such as China, Japan, South Korea, and India are actively adopting automation, smart manufacturing systems, and IoT-based industrial solutions. Strong government support for Industry 4.0 initiatives and large-scale investments in digital infrastructure further enhance regional growth. The region also benefits from a high concentration of manufacturing facilities seeking improved efficiency and cost reduction. Increasing focus on productivity and modernization of industrial operations continues to drive widespread adoption of IoT technologies, solidifying Asia Pacific's dominant market position.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, driven by advanced technological development and widespread implementation of Industry 4.0 practices. The region hosts leading technology firms, well-established

industrial systems, and significant investments in automation and digitalization. Companies in the United States and Canada are increasingly deploying IoT solutions to enhance efficiency, lower operational expenses, and improve strategic decision-making. Rising demand for predictive maintenance, real-time data insights, and smart production systems is fueling growth. Furthermore, strong cybersecurity measures and continuous technological innovation are significantly boosting IoT adoption across various industrial applications.

Key players in the market

Some of the key players in IoT-Enabled Industrial Devices Market include Siemens AG, General Electric Company, ABB Ltd., Rockwell Automation, Inc., Emerson Electric Co., Schneider Electric SE, Honeywell International Inc., Cisco Systems, Inc., Texas Instruments Incorporated, Intel Corporation, IBM Corporation, Bosch Rexroth AG, Advantech Co., Ltd., PTC Inc., Mitsubishi Electric Corporation, Yokogawa Electric Corporation, Endress+Hauser Group and Huawei Technologies Co., Ltd.

Key Developments:

In June 2026, Emerson Electric Co. inked a strategic collaboration with SiMa.ai to integrate SiMa.ai's MLSoC (Machine Learning System on Chip) technology into Emerson's industrial PCs. The integration of advanced artificial intelligence capabilities into industrial personal computers will enable Emerson to perform real-time data analysis in factory and remote site environments.

In November 2025, Rockwell Automation and SLB announced that, following a strategic review, both companies have agreed to pursue an orderly dissolution of their Sensia joint venture. Under the agreement, Rockwell Automation will assume one hundred percent ownership of the Process Automation Business that it contributed to the joint venture, while SLB will fully regain ownership of its contributed assets, including Lift Control and Measurements.

In November 2025, Schneider Electric announced a two-phase supply capacity agreement (SCA) totaling \$1.9 billion in sales. The milestone deal includes prefabricated power modules and the first North American deployment of chillers. The announcement was unveiled at Schneider Electric's Innovation Summit North America in Las Vegas, convening more than 2,500 business leaders and market innovators to accelerate practical solutions for a more resilient, affordable and intelligent energy future.

Device Types Covered:

Smart Sensors

Connected Actuators

Industrial Robots

IoT-Enabled Controllers

Smart Meters

Connectivity Technologies Covered:

Wired

Wireless

Cellular

LPWAN

Deployment Models Covered:

On-Premises

Cloud-Based

Hybrid

Applications Covered:

Predictive Maintenance

Asset Tracking & Management

Energy Management

Process Automation

Safety & Security Monitoring

End Users Covered:

Manufacturing

Oil & Gas

Energy & Utilities

Transportation & Logistics

Healthcare

Agriculture

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)

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