

# **Robotic Sorting Systems Market Forecasts to 2034 – Global Analysis By Robot Type (Articulated Robots, Delta Robots, SCARA Robots, Collaborative Robots and Cartesian Robots), Method, Payload, Industry Vertical, Offering, Application, End User and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Robotic Sorting Systems Market is accounted for \$8.4 billion in 2026 and is expected to reach \$28.4 billion by 2034 growing at a CAGR of 16.4% during the forecast period. Robotic sorting systems refer to articulated, delta, SCARA, collaborative, and Cartesian robot platforms equipped with vision-guided robotics, AI and machine learning sorting algorithms, 3D bin picking, and barcode and RFID integration capabilities that automate product classification, grading, picking, and placement operations across logistics, food processing, manufacturing, pharmaceutical, and e-commerce applications, replacing labor-intensive manual sorting with precise, high-speed, consistent automated sorting that improves throughput, reduces error rates, and enables 24/7 operation.

### **Market Dynamics:**

#### **Driver:**

E-Commerce Fulfillment Throughput Demands

Exponential e-commerce order volume growth creating sorting center throughput requirements that manual sorting labor cannot economically or physically scale to meet is driving robotic sorting system deployment as the required automated infrastructure for

competitive e-commerce fulfillment operations. Same-day and next-day delivery service level commitments requiring rapid order sort-to-ship cycle times within hours create operational performance standards that robotic sorting systems achieving thousands of picks per hour uniquely satisfy at commercially sustainable labor cost structures.

**Restraint:****Robotic Grasping Variability Challenge**

Product variability in weight, shape, material, and surface condition creating grasping and manipulation challenges for robotic sorting systems where inconsistent product handling generates sorting error rates and product damage that constrain deployment in high-SKU-variety applications requiring extremely robust adaptive grasping across thousands of distinct product types without system reconfiguration.

**Opportunity:****Food Processing Automation Quality Integration**

Food processing robotic sorting integration with inline vision quality inspection enabling simultaneous defect rejection, grade classification, and destination routing within a single robotic sorting operation represents a premium food processing automation opportunity generating both quality assurance and throughput efficiency improvement that manual sorting cannot match at comparable accuracy and speed, driving premium robotic sorting adoption in high-value food processing operations.

**Threat:****Collaborative Robot Integration Safety Regulation**

Expanding ISO and OSHA collaborative robot safety standard compliance requirements for robotic sorting systems operating in human-shared workspaces, creating additional safety validation investment obligations and operational constraints from safety-enforced speed limitations that reduce collaborative robot sorting throughput below comparable non-collaborative robot alternative performance in high-density production environments.

**Covid-19 Impact:**

COVID-19 social distancing requirements, limiting manual sorting labor density, and simultaneous labor availability disruptions created an immediate operational necessity for robotic sorting deployment at facilities previously planning a gradual automation transition. Post-pandemic structural labor market tightening and wage inflation are sustaining robotic sorting investment momentum across logistics and food processing sectors globally.

The cartesian robots segment is expected to be the largest during the forecast period

The cartesian robots segment is expected to account for the largest market share during the forecast period, due to the widespread deployment of gantry-style Cartesian sorting systems across palletizing, depalletizing, and bulk product sorting applications, where their superior payload capacity, positioning precision, and clean-room compatibility create the largest total installed base volume among robotic sorting configuration types across diverse industrial sorting applications.

The vision-guided robotics segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the vision-guided robotics segment is predicted to witness the highest growth rate, driven by rapid AI vision system capability advancement, enabling reliable random-position pick and place of diverse unstructured product presentations that previously required expensive structured feeding systems, combined with falling 3D vision sensor costs enabling vision-guided robotic sorting deployment across a broadening range of picking application economics.

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

During the forecast period, the North America region is expected to hold the largest market share, due to the United States hosting the world's largest e-commerce fulfillment and food processing automation investment programs with leading robotic sorting vendors including ABB, FANUC, and Berkshire Grey generating substantial North American revenue, and strong warehouse automation investment from Amazon, Walmart, and major third-party logistics operators.

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

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest

CAGR, due to China, Japan, and South Korea hosting the world's most rapidly expanding e-commerce fulfillment automation programs, strong domestic robot manufacturing from FANUC, Yaskawa, and Chinese robotics companies creating a competitive ecosystem, and rapidly growing food processing automation adoption across Asian manufacturing sectors.

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

Some of the key players in Robotic Sorting Systems Market include ABB Ltd, FANUC Corporation, Yaskawa Electric Corporation, KUKA AG, Omron Corporation, Kawasaki Heavy Industries Ltd., Mitsubishi Electric Corporation, Universal Robots A/S, Seiko Epson Corporation, Denso Corporation, Staubli International AG, Comau S.p.A., Techman Robot Inc., Vecna Robotics, Berkshire Grey Inc., and RightHand Robotics Inc..

### **Key Developments:**

In April 2026, Berkshire Grey Inc. launched a new AI-powered robotic piece-picking sortation system achieving 600 items per hour throughput across 50,000 SKU variety with 99.5 percent accuracy targeting large e-commerce fulfillment center deployment contracts.

In March 2026, Universal Robots A/S introduced a collaborative robot sorting cell, achieving food-grade compliance with built-in washdown protection, enabling direct integration into fresh food processing and packaging sorting applications without custom safety guarding installation.

In December 2025, ABB Ltd secured a major European food processing robotic sorting contract, deploying vision-guided delta robot sorting lines for fresh produce grading and packaging across three large-scale production facilities.

### **Robot Types Covered:**

Articulated Robots

Delta Robots

SCARA Robots

Collaborative Robots

Cartesian Robots

Methods Covered:

Vision-Guided Robotics

AI & Machine Learning Sorting

3D Bin Picking

Barcode & RFID Integration

Payloads Covered:

20 kg

Industry Verticals Covered:

E-Commerce & Logistics

Food & Beverage

Pharmaceuticals

Agriculture & Post-Harvest

Recycling & Waste Management

Offerings Covered:

Hardware

Software

## Integration Services

### Applications Covered:

Parcel & Package Sorting

Fruit & Vegetable Grading

Pharma Vial Sorting

Waste Stream Sorting

Warehouse Order Fulfillment

### End Users Covered:

3PL Providers

E-Commerce Companies

Food Processors

Pharmaceutical Manufacturers

Municipal Recycling Facilities

### 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

## Contents

### **1 EXECUTIVE SUMMARY**

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

### **2 RESEARCH FRAMEWORK**

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
  - 2.4.1 Data Collection (Primary and Secondary)
  - 2.4.2 Data Modeling and Estimation Techniques
  - 2.4.3 Data Validation and Triangulation
  - 2.4.4 Analytical and Forecasting Approach

### **3 MARKET DYNAMICS AND TREND ANALYSIS**

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

### **4 COMPETITIVE AND STRATEGIC ASSESSMENT**

- 4.1 Porter's Five Forces Analysis
  - 4.1.1 Supplier Bargaining Power
  - 4.1.2 Buyer Bargaining Power
  - 4.1.3 Threat of Substitutes
  - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

## **5 GLOBAL ROBOTIC SORTING SYSTEMS MARKET, BY ROBOT TYPE**

- 5.1 Articulated Robots
- 5.2 Delta Robots
- 5.3 SCARA Robots
- 5.4 Collaborative Robots
- 5.5 Cartesian Robots

## **6 GLOBAL ROBOTIC SORTING SYSTEMS MARKET, BY METHOD**

- 6.1 Vision-Guided Robotics
- 6.2 AI & Machine Learning Sorting
- 6.3 3D Bin Picking
- 6.4 Barcode & RFID Integration

## **7 GLOBAL ROBOTIC SORTING SYSTEMS MARKET, BY PAYLOAD**

- 7.1 20 kg

## **8 GLOBAL ROBOTIC SORTING SYSTEMS MARKET, BY INDUSTRY VERTICAL**

- 8.1 E-Commerce & Logistics
- 8.2 Food & Beverage
- 8.3 Pharmaceuticals
- 8.4 Agriculture & Post-Harvest
- 8.5 Recycling & Waste Management

## **9 GLOBAL ROBOTIC SORTING SYSTEMS MARKET, BY OFFERING**

- 9.1 Hardware
- 9.2 Software
- 9.3 Integration Services

## **10 GLOBAL ROBOTIC SORTING SYSTEMS MARKET, BY APPLICATION**

- 10.1 Parcel & Package Sorting
- 10.2 Fruit & Vegetable Grading
- 10.3 Pharma Vial Sorting
- 10.4 Waste Stream Sorting
- 10.5 Warehouse Order Fulfillment

## **11 GLOBAL ROBOTIC SORTING SYSTEMS MARKET, BY END USER**

- 11.1 3PL Providers
- 11.2 E-Commerce Companies
- 11.3 Food Processors
- 11.4 Pharmaceutical Manufacturers
- 11.5 Municipal Recycling Facilities

## **12 GLOBAL ROBOTIC SORTING SYSTEMS MARKET, BY GEOGRAPHY**

- 12.1 North America
  - 12.1.1 United States
  - 12.1.2 Canada
  - 12.1.3 Mexico
- 12.2 Europe
  - 12.2.1 United Kingdom
  - 12.2.2 Germany
  - 12.2.3 France
  - 12.2.4 Italy
  - 12.2.5 Spain
  - 12.2.6 Netherlands
  - 12.2.7 Belgium
  - 12.2.8 Sweden
  - 12.2.9 Switzerland
  - 12.2.10 Poland
  - 12.2.11 Rest of Europe
- 12.3 Asia Pacific
  - 12.3.1 China
  - 12.3.2 Japan
  - 12.3.3 India
  - 12.3.4 South Korea
  - 12.3.5 Australia
  - 12.3.6 Indonesia

- 12.3.7 Thailand
- 12.3.8 Malaysia
- 12.3.9 Singapore
- 12.3.10 Vietnam
- 12.3.11 Rest of Asia Pacific
- 12.4 South America
  - 12.4.1 Brazil
  - 12.4.2 Argentina
  - 12.4.3 Colombia
  - 12.4.4 Chile
  - 12.4.5 Peru
  - 12.4.6 Rest of South America
- 12.5 Rest of the World (RoW)
  - 12.5.1 Middle East
    - 12.5.1.1 Saudi Arabia
    - 12.5.1.2 United Arab Emirates
    - 12.5.1.3 Qatar
    - 12.5.1.4 Israel
    - 12.5.1.5 Rest of Middle East
  - 12.5.2 Africa
    - 12.5.2.1 South Africa
    - 12.5.2.2 Egypt
    - 12.5.2.3 Morocco
    - 12.5.2.4 Rest of Africa

## **13 STRATEGIC MARKET INTELLIGENCE**

- 13.1 Industry Value Network and Supply Chain Assessment
- 13.2 White-Space and Opportunity Mapping
- 13.3 Product Evolution and Market Life Cycle Analysis
- 13.4 Channel, Distributor, and Go-to-Market Assessment

## **14 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES**

- 14.1 Mergers and Acquisitions
- 14.2 Partnerships, Alliances, and Joint Ventures
- 14.3 New Product Launches and Certifications
- 14.4 Capacity Expansion and Investments
- 14.5 Other Strategic Initiatives

## 15 COMPANY PROFILES

- 15.1 ABB Ltd
- 15.2 FANUC Corporation
- 15.3 Yaskawa Electric Corporation
- 15.4 KUKA AG
- 15.5 Omron Corporation
- 15.6 Kawasaki Heavy Industries, Ltd.
- 15.7 Mitsubishi Electric Corporation
- 15.8 Universal Robots A/S
- 15.9 Seiko Epson Corporation
- 15.10 Denso Corporation
- 15.11 Staubli International AG
- 15.12 Comau S.p.A.
- 15.13 Techman Robot Inc.
- 15.14 Vecna Robotics
- 15.15 Berkshire Grey, Inc.
- 15.16 RightHand Robotics, Inc.

## List Of Tables

### LIST OF TABLES

Table 1 Global Robotic Sorting Systems Market Outlook, By Region (2023-2034) (\$MN)

Table 2 Global Robotic Sorting Systems Market Outlook, By Robot Type (2023-2034) (\$MN)

Table 3 Global Robotic Sorting Systems Market Outlook, By Articulated Robots (2023-2034) (\$MN)

Table 4 Global Robotic Sorting Systems Market Outlook, By Delta Robots (2023-2034) (\$MN)

Table 5 Global Robotic Sorting Systems Market Outlook, By SCARA Robots (2023-2034) (\$MN)

Table 6 Global Robotic Sorting Systems Market Outlook, By Collaborative Robots (2023-2034) (\$MN)

Table 7 Global Robotic Sorting Systems Market Outlook, By Cartesian Robots (2023-2034) (\$MN)

Table 8 Global Robotic Sorting Systems Market Outlook, By Method (2023-2034) (\$MN)

Table 9 Global Robotic Sorting Systems Market Outlook, By Vision-Guided Robotics (2023-2034) (\$MN)

Table 10 Global Robotic Sorting Systems Market Outlook, By AI & Machine Learning Sorting (2023-2034) (\$MN)

Table 11 Global Robotic Sorting Systems Market Outlook, By 3D Bin Picking (2023-2034) (\$MN)

Table 12 Global Robotic Sorting Systems Market Outlook, By Barcode & RFID Integration (2023-2034) (\$MN)

Table 13 Global Robotic Sorting Systems Market Outlook, By Payload (2023-2034) (\$MN)

Table 14 Global Robotic Sorting Systems Market Outlook, By 20 kg (2023-2034) (\$MN)

Table 17 Global Robotic Sorting Systems Market Outlook, By Industry Vertical (2023-2034) (\$MN)

Table 18 Global Robotic Sorting Systems Market Outlook, By E-Commerce & Logistics (2023-2034) (\$MN)

Table 19 Global Robotic Sorting Systems Market Outlook, By Food & Beverage (2023-2034) (\$MN)

Table 20 Global Robotic Sorting Systems Market Outlook, By Pharmaceuticals (2023-2034) (\$MN)

Table 21 Global Robotic Sorting Systems Market Outlook, By Agriculture & Post-Harvest (2023-2034) (\$MN)

Table 22 Global Robotic Sorting Systems Market Outlook, By Recycling & Waste Management (2023-2034) (\$MN)

Table 23 Global Robotic Sorting Systems Market Outlook, By Offering (2023-2034) (\$MN)

Table 24 Global Robotic Sorting Systems Market Outlook, By Hardware (2023-2034) (\$MN)

Table 25 Global Robotic Sorting Systems Market Outlook, By Software (2023-2034) (\$MN)

Table 26 Global Robotic Sorting Systems Market Outlook, By Integration Services (2023-2034) (\$MN)

Table 27 Global Robotic Sorting Systems Market Outlook, By Application (2023-2034) (\$MN)

Table 28 Global Robotic Sorting Systems Market Outlook, By Parcel & Package Sorting (2023-2034) (\$MN)

Table 29 Global Robotic Sorting Systems Market Outlook, By Fruit & Vegetable Grading (2023-2034) (\$MN)

Table 30 Global Robotic Sorting Systems Market Outlook, By Pharma Vial Sorting (2023-2034) (\$MN)

Table 31 Global Robotic Sorting Systems Market Outlook, By Waste Stream Sorting (2023-2034) (\$MN)

Table 32 Global Robotic Sorting Systems Market Outlook, By Warehouse Order Fulfillment (2023-2034) (\$MN)

Table 33 Global Robotic Sorting Systems Market Outlook, By End User (2023-2034) (\$MN)

Table 34 Global Robotic Sorting Systems Market Outlook, By 3PL Providers (2023-2034) (\$MN)

Table 35 Global Robotic Sorting Systems Market Outlook, By E-Commerce Companies (2023-2034) (\$MN)

Table 36 Global Robotic Sorting Systems Market Outlook, By Food Processors (2023-2034) (\$MN)

Table 37 Global Robotic Sorting Systems Market Outlook, By Pharmaceutical Manufacturers (2023-2034) (\$MN)

Table 38 Global Robotic Sorting Systems Market Outlook, By Municipal Recycling Facilities (2023-2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) Regions are also represented in the same manner as above.

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