

# Robotics Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

<https://marketpublishers.com/r/R63227093A0EN.html>

Date: September 2023

Pages: 144

Price: US\$ 2,499.00 (Single User License)

ID: R63227093A0EN

## Abstracts

### Market Overview:

The global robotics market size reached US\$ 39.2 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 102.4 Billion by 2028, exhibiting a growth rate (CAGR) of 17.58% during 2023-2028. The rising demand for automation across various industries, the increasing need to reduce the risk of injury and human errors, and the growing environmental concerns among the masses represent some of the key factors driving the market.

### The Wide Applicability of Robotics in Various Industries Augmenting the Market Growth

The widespread adoption of robotics in numerous industries that produce or transfer goods on a large scale is significantly supporting the market. In manufacturing, robotics is widely used for fabricating, completing, transferring, and assembling components. Material handling enterprises, in which products are readied for distribution, are another area that utilizes robots for sorting, picking, packaging, and stacking goods. Clinical laboratories, agriculture, education, and retail and service industries are also beginning to incorporate collaborative robots. From harvesting crops to assembling cars and delivering medicines, robotics is improving productivity, safety, and flexibility in many industries, which is also providing a thrust to the market.

Competitive analysis such as market structure, market share by key players, player positioning, top winning strategies, competitive dashboard, and company evaluation quadrant has been covered in the report. Also, detailed profiles of all major companies have been provided. The market structure is fragmented into many players in the industry due to the wide scope for innovations in the future and advancements in

technologies for enhancing efficiency. The volume of new entrants is moderate in the robotics market on account of the high capital investment and moderate consumer loyalty toward specific brands.

### What is Robotics?

Robotics is the study of robots and their design, development, construction, operation, and application. It involves the utilization of machines to perform tasks that are either too difficult or too dangerous for humans to perform. These robots can be used to conduct a variety of functions, including assembly, inspection, welding, painting, cutting, and packaging. It has become increasingly important in a wide range of industries, such as manufacturing, healthcare, and defense. Additionally, robotics technology is used to improve safety in dangerous environments, growing production efficiency, reduce costs, and improve the quality of products. It also has the potential to revolutionize the way various industries operate, potentially reducing human labor and increasing efficiency. It has been utilized to create robots that can interact with humans and the world around them, and robots are now being used to explore the oceans, space, and other hostile environments. Moreover, it has also been used to create autonomous vehicles like self-driving cars and drones, as well as robots that can perform surgery, search for survivors in disaster areas, and even perform medical diagnoses. It is an integral part of many industries, and as technology advances, robotics is likely to play an essential role in the future of many industries.

### COVID-19 Impact:

The COVID-19 pandemic led to a massive financial setback for various end-use industries, as they were forced to shut down and endure lockdowns. In addition, the high costs associated with the installation and maintenance of industrial robots in manufacturing facilities hindered the growth of the robotics market. In addition, the difficulty in procuring raw materials impelled the manufacturing plants to halt their operations. However, with the decline in the severity of the coronavirus and the upliftment of lockdown restrictions, there has been a considerable rise in the uptake of automation, which, in turn, is creating a positive market outlook for the overall robotics market. In line with this, the outbreak has encouraged the healthcare industry to employ automatons for sanitizing, and patient monitoring and assist frontline medical workers to reduce their exposure to the virus, which is a major driving factor.

### Robotics Market Trends:

The escalating demand for automation majorly drives the global market. Robotics is becoming increasingly attractive for businesses who want to reduce labor costs and increase efficiency as automation is allowing companies to computerize repetitive tasks that are not cost-effective to do manually, such as material handling, packaging, assembly, and welding. Apart from this, the rising need for providing a safe working environment for employees while reducing the risk of injury and human errors, is propelling the market. Moreover, the widespread employment of robots in the healthcare sector to automate medical procedures such as surgery, monitoring of patients, and the distribution of medications, and assisting with physical therapy and rehabilitation is contributing to the demand. Along with this, robotics are used to automate delivery and logistics processes, including warehouse stocking, packaging, and delivery, to reduce costs and increase the efficiency of delivery and logistics operations, which is acting as another growth-inducing factor. In addition, the widespread adoption of robotics across the globe to help businesses reduce costs by eliminating the need for additional staff, as well as reducing the cost of materials and energy, is also significantly supporting the market. Furthermore, continuous technological advancements, such as the integration of artificial intelligence, machine learning, and predictive analytics, are making robots more capable and cost-effective, creating a positive market outlook.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global robotics market report, along with forecasts at the global and regional levels from 2023-2028. Our report has categorized the market based on product type.

#### Industrial

##### Breakup by Type

Articulated

Cartesian

SCARA

Cylindrical

Others

##### Service

##### Breakup by Type

Personal and Domestic

Professional

##### Breakup by Application

Household Applications

Entertainment Applications

Defence Applications  
Field Applications  
Logistics Applications  
Healthcare Applications  
Infrastructure Applications  
Mobile Platform Applications  
Cleaning Applications  
Others

The report has provided a detailed breakup and analysis of the robotics market based on the product type. This includes industrial [breakup by type (articulated robots, cartesian robots, SCARA robots, cylindrical robots, and others)], and service [breakup by type (personal and domestic, and professional)] and [breakup by application (household applications, entertainment applications, defence applications, field applications, logistics applications, healthcare applications, infrastructure applications, mobile platform applications, cleaning applications, and others)]. According to the report, service robotics represented the largest segment due to the growing need for automation and improved safety, along with increasing need for personalized services as automation aid in reducing the need for human labor and increases efficiency. As the demand for personalized services increases, service robotics can provide personalized services such as medical assistance, elderly care, and home cleaning, impacting the market. Moreover, service robotics eliminate the risk of human error, reduce the need for human labor in hazardous environments, and provide better monitoring of a critical infrastructure is driving the market favorably.

#### Regional Insights:

North America  
Europe  
Asia Pacific  
Latin America  
Middle East and Africa

The report has also provided a comprehensive analysis of all the major regional markets, which include North America, Europe, Asia Pacific, Latin America, and the Middle East and Africa. According to the report, Asia Pacific was the largest market for robotics. Some of the factors driving the Asia Pacific robotics market included the introduction of artificial intelligence (AI), machine learning, the internet of things (IoT), and human-machine interface technology. These advancements are being adopted

across multiple industry verticals, such as healthcare, logistics, manufacturing, defense, and entertainment. Robotics technologies have the capability to carry out operations according to customer requirements with the ability to change dimensions and calibrate machines, driving the demand across the region.

#### Competitive Landscape:

The report has also provided a comprehensive analysis of the competitive landscape in the global robotics market.

#### Key Questions Answered in This Report

1. What was the size of the global robotics market in 2022?
2. What is the expected growth rate of the global robotics market during 2023-2028?
3. What are the key factors driving the global robotics market?
4. What has been the impact of COVID-19 on the global robotics market?
5. What is the breakup of the global robotics market based on the product type?
6. What are the key regions in the global robotics market?

## Contents

### **1 PREFACE**

### **2 SCOPE AND METHODOLOGY**

2.1 Objectives of the Study

2.2 Stakeholders

2.3 Data Sources

2.3.1 Primary Sources

2.3.2 Secondary Sources

2.4 Market Estimation

2.4.1 Bottom-Up Approach

2.4.2 Top-Down Approach

2.5 Forecasting Methodology

### **3 EXECUTIVE SUMMARY**

### **4 INTRODUCTION**

4.1 Overview

4.2 Key Industry Trends

### **5 GLOBAL ROBOTICS MARKET**

5.1 Market Overview

5.2 Key Market Drivers and Success Factors

5.3 Market Performance

5.3.1 Historical and Current Market Trends

5.3.2 Market Breakup by Product Type

5.3.3 Market Breakup by Region

5.3.4 Market Forecast

5.4 Impact of COVID-19

5.5 SWOT Analysis

5.5.1 Overview

5.5.2 Strengths

5.5.3 Weaknesses

5.5.4 Opportunities

5.5.5 Threats

## 5.6 Value Chain Analysis

## 5.7 Porter's Five Forces Analysis

### 5.7.1 Overview

### 5.7.2 Bargaining Power of Buyers

### 5.7.3 Bargaining Power of Suppliers

### 5.7.4 Degree of Competition

### 5.7.5 Threat of New Entrants

### 5.7.6 Threat of Substitutes

## **6 GLOBAL ROBOTICS MARKET BY PRODUCT TYPE**

### 6.1 Introduction

#### 6.1.1 Industrial Robots and Service Robots

#### 6.1.2 Key Market Trends and Developments

### 6.2 Global Industrial Robotics Market

#### 6.2.1 Market Overview

#### 6.2.2 Historical and Current Market Trends

#### 6.2.3 Market Breakup by Type

##### 6.2.3.1 Articulated Robots

###### 6.2.3.1.1 Historical and Current Market Trends

###### 6.2.3.1.2 Market Forecast

##### 6.2.3.2 Cartesian Robots

###### 6.2.3.2.1 Historical and Current Market Trends

###### 6.2.3.2.2 Market Forecast

##### 6.2.3.3 SCARA Robots

###### 6.2.3.3.1 Historical and Current Market Trends

###### 6.2.3.3.2 Market Forecast

##### 6.2.3.4 Cylindrical Robots

###### 6.2.3.4.1 Historical and Current Market Trends

###### 6.2.3.4.2 Market Forecast

##### 6.2.3.5 Others

###### 6.2.3.5.1 Historical and Current Market Trends

###### 6.2.3.5.2 Market Forecast

#### 6.2.4 Market Forecast

#### 6.2.5 Trade Data

### 6.3 Global Service Robotics Market

#### 6.3.1 Market Overview

#### 6.3.2 Historical and Current Market Trends

#### 6.3.3 Market Breakup by Type



- 6.3.3.1 Personal and Domestic Robots Market
  - 6.3.3.1.1 Historical and Current Market Trends
  - 6.3.3.1.2 Market Forecast
- 6.3.3.2 Professional Robots Market
  - 6.3.3.2.1 Historical and Current Market Trends
  - 6.3.3.2.2 Market Forecast
- 6.3.4 Market Breakup by Applications
  - 6.3.4.1 Household Applications
    - 6.3.4.1.1 Historical and Current Market Trends
    - 6.3.4.1.2 Market Forecast
  - 6.3.4.2 Entertainment Applications
    - 6.3.4.2.1 Historical and Current Market Trends
    - 6.3.4.2.2 Market Forecast
  - 6.3.4.3 Defence Applications
    - 6.3.4.3.1 Historical and Current Market Trends
    - 6.3.4.3.2 Market Forecast
  - 6.3.4.4 Field Applications
    - 6.3.4.4.1 Historical and Current Market Trends
    - 6.3.4.4.2 Market Forecast
  - 6.3.4.5 Logistics Applications
    - 6.3.4.5.1 Historical and Current Market Trends
    - 6.3.4.5.2 Market Forecast
  - 6.3.4.6 Healthcare Applications
    - 6.3.4.6.1 Historical and Current Market Trends
    - 6.3.4.6.2 Market Forecast
  - 6.3.4.7 Infrastructure Applications
    - 6.3.4.7.1 Historical and Current Market Trends
    - 6.3.4.7.2 Market Forecast
  - 6.3.4.8 Mobile Platform Applications
    - 6.3.4.8.1 Historical and Current Market Trends
    - 6.3.4.8.2 Market Forecast
  - 6.3.4.9 Cleaning Applications
    - 6.3.4.9.1 Historical and Current Market Trends
    - 6.3.4.9.2 Market Forecast
  - 6.3.4.10 Others
    - 6.3.4.10.1 Historical and Current Market Trends
    - 6.3.4.10.2 Market Forecast
- 6.3.5 Market Forecast



## **7 GLOBAL ROBOTICS MARKET BY REGION**

### **7.1 North America**

#### **7.1.1 Market Overview**

#### **7.1.2 Historical and Current Market Trends**

#### **7.1.3 Market Breakup by Product Type**

#### **7.1.4 Market Forecast**

### **7.2 Europe**

#### **7.2.1 Market Overview**

#### **7.2.2 Historical and Current Market Trends**

#### **7.2.3 Market Breakup by Product Type**

#### **7.2.4 Market Forecast**

### **7.3 Asia Pacific**

#### **7.3.1 Market Overview**

#### **7.3.2 Historical and Current Market Trends**

#### **7.3.3 Market Breakup by Product Type**

#### **7.3.4 Market Forecast**

### **7.4 Latin America**

#### **7.4.1 Market Overview**

#### **7.4.2 Historical and Current Market Trends**

#### **7.4.3 Market Breakup by Product Type**

#### **7.4.4 Market Forecast**

### **7.5 Middle East and Africa**

#### **7.5.1 Market Overview**

#### **7.5.2 Historical and Current Market Trends**

#### **7.5.3 Market Breakup by Product Type**

#### **7.5.4 Market Forecast**

## **8 COMPETITIVE LANDSCAPE**

### **8.1 Market Structure**

### **8.2 Market Breakup by Key Players**

### **8.3 Key Player Profiles**

## List Of Tables

### LIST OF TABLES

Table 1: Global: Robotics Market: Key Industry Highlights, 2022 and 2028

Table 2: Global: Robotics Industry: Services Offered at the Various Levels of the Value Chain

Table 3: Global: Industrial Robots Market: Key Industry Highlights, 2022 and 2028

Table 4: Global: Industrial Robotics Market: Export Data of Major Countries

Table 5: Global: Industrial Robotics Market: Import Data of Major Countries

Table 6: Global: Service Robots Market: Key Industry Highlights, 2022 and 2028

Table 7: Global: Robotics Market: Regional Highlights, 2022 and 2028

Table 8: Global: Robotics Market: Competitive Structure

Table 9: Global: Robotics Market: Key Players

## List Of Figures

### LIST OF FIGURES

- Figure 1: Robots: Basic Components of a Robot and their Functionality
- Figure 2: Global: Robotics Market: Sales Value (in Billion US\$), 2017-2022
- Figure 3: Global: Robotics Market: Breakup by Product Type (in %), 2022
- Figure 4: Global: Robotics Market: Breakup by Region (in %), 2022
- Figure 5: Global: Robotics Market Forecast: Sales Value (in Billion US\$), 2023-2028
- Figure 6: Global: Robotics Industry: SWOT Analysis
- Figure 7: Global: Robotics Industry: Value Chain Analysis
- Figure 8: Global: Robotics Industry: Porter's Five Forces Analysis
- Figure 9: Global: Robotics Market: Types of Robots
- Figure 10: Global: Industrial Robotics Market: Sales Value (in Million US\$), 2017-2022
- Figure 11: Global: Industrial Robots Market: Breakup by Type (in %), 2022
- Figure 12: Global: Industrial (Articulated) Robots Market: Sales Value (in Million US\$), 2017-2022
- Figure 13: Global: Industrial (Articulated) Robots Market Forecast: Sales Value (in Million US\$), 2023-2028
- Figure 14: Global: Industrial (Cartesian) Robots Market: Sales Value (in Million US\$), 2017-2022
- Figure 15: Global: Industrial (Cartesian) Robots Market Forecast: Sales Value (in Million US\$), 2023-2028
- Figure 16: Global: Industrial (SCARA) Robots Market: Sales Value (in Million US\$), 2017-2022
- Figure 17: Global: Industrial (SCARA) Robots Market Forecast: Sales Value (in Million US\$), 2023-2028
- Figure 18: Global: Industrial (Cylindrical) Robots Market: Sales Value (in Million US\$), 2017-2022
- Figure 19: Global: Industrial (Cylindrical) Robots Market Forecast: Sales Value (in Million US\$), 2023-2028
- Figure 20: Global: Industrial (Other Types) Robots Market: Sales Value (in Million US\$), 2017-2022
- Figure 21: Global: Industrial (Other Types) Robots Market Forecast: Sales Value (in Million US\$), 2023-2028
- Figure 22: Global: Industrial Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028
- Figure 23: Global: Industrial Robots Market Forecast: Breakup by Type (in %), 2028
- Figure 24: Global: Industrial Robotics Market: Export Value Breakup by Country (in %)

Figure 25: Global: Industrial Robotics Market: Import Value Breakup by Country (in %)

Figure 26: Global: Service Robots Market: Sales Value (in Million US\$), 2017-2022

Figure 27: Global: Service Robots Market: Breakup by Type (in %), 2022

Figure 28: Global: Service (Personal and Domestic) Robots Market: Sales Value (in Million US\$), 2017-2022

Figure 29: Global: Service (Personal and Domestic) Robots Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 30: Global: Service (Professional) Robots Market: Sales Value (in Million US\$), 2017-2022

Figure 31: Global: Service (Professional) Robots Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 32: Global: Service (Personal and Domestic) Robotics Market: Breakup by Applications (in %), 2022

Figure 33: Global: Service (Professional) Robots Market: Breakup by Applications (in %), 2022

Figure 34: Global: Service (Professional) Robots Market: Key Segments Market Shares (in %), 2017-2022

Figure 35: Global: Service Robots Market (Household Applications): Sales Value (in Million US\$), 2017-2022

Figure 36: Global: Service Robots Market Forecast (Household Applications): Sales Value (in Million US\$), 2023-2028

Figure 37: Global: Service Robots Market (Entertainment Applications): Sales Value (in Million US\$), 2017-2022

Figure 38: Global: Service Robots Market Forecast (Entertainment Applications): Sales Value (in Million US\$), 2023-2028

Figure 39: Global: Service Robotics Market (Defence Applications): Sales Value (in Million US\$), 2017-2022

Figure 40: Global: Service Robotics Market Forecast (Defence Applications): Sales Value (in Million US\$), 2023-2028

Figure 41: Global: Service Robotics Market (Field Applications): Sales Value (in Million US\$), 2017-2022

Figure 42: Global: Service Robotics Market Forecast (Field Applications): Sales Value (in Million US\$), 2023-2028

Figure 43: Global: Service Robotics Market (Logistics Applications): Sales Value (in Million US\$), 2017-2022

Figure 44: Global: Service Robotics Market Forecast (Logistics Applications): Sales Value (in Million US\$), 2023-2028

Figure 45: Global: Service Robotics Market (Healthcare Applications): Sales Value (in Million US\$), 2017-2022

Figure 46: Global: Service Robotics Market Forecast (Healthcare Applications): Sales Value (in Million US\$), 2023-2028

Figure 47: Global: Service Robotics Market (Infrastructure Applications): Sales Value (in Million US\$), 2017-2022

Figure 48: Global: Service Robotics Market Forecast (Infrastructure Applications): Sales Value (in Million US\$), 2023-2028

Figure 49: Global: Service Robotics Market (Mobile Platform Applications): Sales Value (in Million US\$), 2017-2022

Figure 50: Global: Service Robotics Market Forecast (Mobile Platform Applications): Sales Value (in Million US\$), 2023-2028

Figure 51: Global: Service Robotics Market (Cleaning Applications): Sales Value (in Million US\$), 2017-2022

Figure 52: Global: Service Robotics Market Forecast (Cleaning Applications): Sales Value (in Million US\$), 2023-2028

Figure 53: Global: Service Robotics Market (Other Applications): Sales Value (in Million US\$), 2017-2022

Figure 54: Global: Service Robotics Market Forecast (Other Applications): Sales Value (in Million US\$), 2023-2028

Figure 55: Global: Service Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 56: Global: Service Robots Market Forecast: Breakup by Type (in %), 2028

Figure 57: Global: Robotics Market: Breakup by Region (in %), 2017 & 2028

Figure 58: North America: Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 59: North America: Robotics Market: Breakup by Product Type (in %), 2022

Figure 60: North America: Industrial Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 61: North America: Industrial Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 62: North America: Service Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 63: North America: Service Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 64: North America: Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 65: Europe: Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 66: Europe: Robotics Market: Breakup by Product Type (in %), 2022

Figure 67: Europe: Industrial Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 68: Europe: Industrial Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 69: Europe: Service Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 70: Europe: Service Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 71: Europe: Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 72: Asia Pacific: Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 73: Asia Pacific: Robotics Market: Breakup by Product Type (in %), 2022

Figure 74: Asia Pacific: Industrial Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 75: Asia Pacific: Industrial Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 76: Asia Pacific: Service Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 77: Asia Pacific: Service Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 78: Asia Pacific: Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 79: Latin America: Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 80: Latin America: Robotics Market: Breakup by Product Type (in %), 2022

Figure 81: Latin America: Industrial Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 82: Latin America: Industrial Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 83: Latin America: Service Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 84: Latin America: Service Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 85: Latin America: Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 86: Middle East and Africa: Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 87: Middle East and Africa: Robotics Market: Breakup by Product Type (in %), 2022

Figure 88: Middle East and Africa: Industrial Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 89: Middle East and Africa: Industrial Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 90: Middle East and Africa: Service Robotics Market: Sales Value (in Million US\$), 2017-2022

Figure 91: Middle East and Africa: Service Robotics Market Forecast: Sales Value (in

Million US\$), 2023-2028

Figure 92: Middle East and Africa: Robotics Market Forecast: Sales Value (in Million US\$), 2023-2028



## I would like to order

Product name: Robotics Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

Product link: <https://marketpublishers.com/r/R63227093A0EN.html>

Price: US\$ 2,499.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/R63227093A0EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

