

Robot Software - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029

Market Report | 2024-02-17 | 110 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License \$4750.00
- Team License (1-7 Users) \$5250.00
- Site License \$6500.00
- Corporate License \$8750.00

Report description:

The Robot Software Market size is estimated at USD 19.92 billion in 2024, and is expected to reach USD 53 billion by 2029, growing at a CAGR of 21.62% during the forecast period (2024-2029).

Key Highlights

- Robot software enables functions for intelligence, motion, safety, and productivity and gives the power to get the robots to see, feel, learn, and maintain security. These characteristics and benefits allow users to instantly and easily get their robots up and running at optimum productivity. The major factors driving the robot software market are the adoption of artificial intelligence, enhanced speed, improved quality, reduced labor cost, increased accuracy, and production scalability.
- Rising adoption of robots across various end-user industries such as manufacturing, electrical and electronics, automotive, food and beverage, and process controls are seen as primary growth drivers for the robotics software platforms market. The growing utilization of robots in varied end-user industries helps meet customized demand while simultaneously helping lower labor costs.
- Since the invention of robots, software has played a key role in the field of robotics. With the introduction of new software features that enable better control of the robot, quick customization of sequences, and ease of use, the software is expected to further boost the adoption of robotics in the coming years.
- However, data security and increasing cyberattacks are hindering market growth. Also, increasing robot crimes are impeding the adoption of robots in various sectors, thus, reducing the robot software adoption prospects. Also, the lack of skilled expertise is another major restraining factor for this market.
- COVID-19 provided a solid push to expand the usage of robot software and improve robotics research. During the pandemic, various companies have installed robots to disinfect areas and deliver food to quarantined people. Some companies designed robot software to help people track COVID-19 in their communities.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Robot Software Market Trends

Industrial Robots to Have the Majority Application

- With the advent of technologies like the Industrial Internet of Things (IIoT), vital to the smart factory concept coupled with Industry 4.0, industrial robot adoption is increasing across the manufacturing industries. An industrial robot is generally used in place of human laborers to perform dangerous or repetitive tasks with high accuracy.
- In order to make the robots perform efficiently, robot software is essential to operate the robots according to the needs of the manufacturers. This software is an extension of human capability. It reflects the human vision that gets keener with every generation and every technological leap. With the enormous growth of robotics in the industrial sector, the need for robotic software is also increasing substantially.
- According to Association for Advancing Automation, industrial robots ordered in North America in 2021 were 39,708 units, up by 14% from the previous high in 2017. Moreover, the widespread adoption of automated technology is raising the demand for robots in the automotive industry. For instance, in Q4 2021, automotive-related customers purchased 39% of the total orders, as per Association for Advancing Automation.
- Moreover, Artificial Intelligence and machine learning capabilities have been rapidly making their way into industrial robotics technology. One of the most significant benefits derived from the merging of robotics and AI technology is increased uptime and productivity from predictive maintenance. With AI integrated with industrial robotics technology, robots are able to monitor their own accuracy and performance, providing signals when maintenance is required to avoid expensive downtime.
- Furthermore, in May 2023, Alphabet launched the first product under its industrial robotics business unit Intrinsic, called Flowstate, which is an intuitive, web-based developer environment where companies can create robotic workflows, offering users the foundation to begin building robotic systems, as well as simulation capabilities to test designs. In particular, the software is aimed at helping non-experts understand and leverage robotic systems.

The Asia-Pacific Region Expected to Register Significant Growth

- The Asia-Pacific region is expected to exhibit significant growth opportunities over the forecast period. The major economies contributing to the growth of the robot software market in this region are China, Japan, Singapore, South Korea, and India. The countries in this region are increasingly adopting robotics across industries.
- The Chinese market is expected to increase its expenditure on AI and robotics, as the country has categorically prioritized its focus on AI and robotics in its 13th five-year plans. China's National Development and Reform Commission has announced an AI three-year implementation program expected to accelerate the adoption of advanced technologies to help the country become a superpower by 2030.
- According to IFR, 73% of all newly deployed robots in 2021 were installed in Asia. 354,000 units were shipped in 2021, up by 33% compared to 2020. The electronics industry adopted by far the most units (123,800 installations), followed by strong demand from the automotive industry (72,600 installations) and the metal and machinery industry (36,400 installations).
- Also, Japan is the predominant robot manufacturing country in the world. According to IFR, Japan emerged as the second largest market for industrial robots after China in 2021. Installations increased by 22% in 2021, with 47,182 units. Japan's operational stock was 393,326 units, increasing by 5% in 2021.
- Companies in the region are looking to develop innovative solutions to remain competitive in the market. For instance, in May 2022, Amazon announced that it would open a new consumer robotics software development center in India to develop solutions for the world. The India center will help Amazon's International robotics division, which launched its first robot Astro in 2021.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Robot Software Industry Overview

The Robot Software Market is moderately fragmented owing to the penetration of robotics globally with applications in various industries. Robotic software companies are constantly focusing on developing advanced technologies that would enhance the robotic processes and help the manufacturing industries to intensify their process. Some of the prominent vendors in the market include ABB Ltd, Clearpath Robotics, NVIDIA Corporation, and CloudMinds Technology Inc.

In November 2022, Clearpath Robotics introduced its OutdoorNav autonomous navigation software platform, which is designed to help vehicle developers, OEMs, and robotics researchers accelerate the development process for their robots and autonomous vehicles. The platform is compatible with the company's outdoor mobile platforms, like the Jackal UGV, Husky UGV, and Warthog UGV, and third-party industrial vehicles with drive-by-wire control, and can provide them with reliable GPS-based navigation.

In May 2022, ABB Robotics launched its High-Speed Alignment software, which was expected to give manufacturers the ability to increase the speed of 6-axis robots by around 70% and accuracy by 50% - significantly reducing time-to-market while increasing accuracy levels.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

Table of Contents:

1 INTRODUCTION

- 1.1 Study Assumptions and Market Definition
- 1.2 Scope of the Study

2 RESEARCH METHODOLOGY

3 EXECUTIVE SUMMARY

4 MARKET INSIGHTS

- 4.1 Market Overview
- 4.2 Industry Value Chain Analysis
- 4.3 Industry Attractiveness - Porter's Five Forces Analysis
 - 4.3.1 Bargaining Power of Suppliers
 - 4.3.2 Bargaining Power of Consumers
 - 4.3.3 Threat of New Entrants
 - 4.3.4 Threat of Substitute Products
 - 4.3.5 Intensity of Competitive Rivalry
- 4.4 Assessment of the Impact of COVID-19 on the Market

5 MARKET DYNAMICS

- 5.1 Market Drivers
 - 5.1.1 Rise in need for automation and safety in organizations
 - 5.1.2 Rapid adoption of robot software by SMEs to reduce labor and energy costs
- 5.2 Market Challenges

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

5.2.1 High cost of implementation and rise in malware attacks on the software

6 MARKET SEGMENTATION

6.1 By Software Type

6.1.1 Recognition Software

6.1.2 Simulation Software

6.1.3 Predictive Maintenance Software

6.1.4 Data Management and Analysis Software

6.1.5 Communication Management Software

6.2 By Robot Type

6.2.1 Industrial Robots

6.2.2 Service Robots

6.3 By Deployment

6.3.1 On-Premise

6.3.2 On-Demand

6.4 By Enterprise Size

6.4.1 Small and Medium Enterprises

6.4.2 Large Enterprises

6.5 By End-user Vertical

6.5.1 Automotive

6.5.2 Retail and E-commerce

6.5.3 Government and Defense

6.5.4 Healthcare

6.5.5 Transportation and Logistics

6.5.6 Manufacturing

6.5.7 IT and Telecommunications

6.5.8 Other End-user Verticals

6.6 By Geography

6.6.1 North America

6.6.2 Europe

6.6.3 Asia-Pacific

6.6.4 Latin America

6.6.5 Middle-East and Africa

7 COMPETITIVE LANDSCAPE

7.1 Company Profiles

7.1.1 ABB Ltd

7.1.2 Clearpath Robotics

7.1.3 NVIDIA Corporation

7.1.4 CloudMinds Technology Inc.

7.1.5 Liquid Robotics Inc.

7.1.6 Brain Corporation

7.1.7 AlBrain Inc.

7.1.8 Furhat Corporation

7.1.9 Neurala Inc.

8 INVESTMENT ANALYSIS

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Robot Software - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029

Market Report | 2024-02-17 | 110 pages | Mordor Intelligence

To place an Order with Scotts International:

- ☐ - Print this form
- ☐ - Complete the relevant blank fields and sign
- ☐ - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4750.00
	Team License (1-7 Users)	\$5250.00
	Site License	\$6500.00
	Corporate License	\$8750.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2026-02-28
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com



Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com
www.scotts-international.com