

Robot Operating System Market By Robot Type (SCARA Robots, Articulated Robots, Parallel Robots, Collaborative Robots, Others), By Application (Plastic Injection and Blow Molding, Pick and Place, Testing and Quality Inspection, PCB Handling and ICT, Metal Stamping and Press Tending, CNC Machine Tending, Co-packing and End of Line Packaging), By Industry Vertical (Electrical and Electronics, Metal and Machinery, Food and Beverages, Healthcare, Automotive, Rubber and Plastic, Others): Global Opportunity Analysis and Industry Forecast, 2021-2031

Market Report | 2023-01-01 | 420 pages | Allied Market Research

AVAILABLE LICENSES:

- Cloud Access License \$3456.00
- Business User License \$5730.00
- Enterprise License \$9600.00

Report description:

Robot operating system, sometimes known as ROS, is a collection of open-source robotics middleware. However, it is not an operating system (OS); ROS is a collection of software frameworks for the creation of robot software. As such, it offers services such as hardware abstraction, low-level device control, the implementation of frequently used functionality, message-passing between processes, and package management that are intended for a heterogeneous computer cluster. In other words, ROS is a set of programming tools and code that assist projectors in running the computer code necessary to perform the action, as well as the infrastructure for doing so, such as messages travelling across processes. The ROS is made to function with a variety of parts and systems that use various programming languages. Therefore, ROS is in high demand due to the expanding use of industrial automation in company processes across the globe. Furthermore, the rise in industry automation research and development funding as well as the expanding use of collaborative modular robots are significant factors anticipated to fuel the expansion of the robot operating system market during the forecast period.[]

Surge in as increase in adoption of automotive in various industry, rise in adoption of ROS by manufacturer and demand of

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

collaborative robots is increasing primarily drive the growth of the robot operating system market. However, high maintenance and installation cost of robots hamper the market growth to some extent. Moreover, adoption of robot as a service is expected to provide lucrative opportunities for the market growth during the forecast period.[]

The global robot operating system market is segmented on the basis of robot type, application, and industry vertical. On the basis of robot type, it is segregated into SCARA robots, articulated robots, parallel robots, collaborative robots and others. On the basis of application, it is segregated into plastic injection and blow molding, pick and place, testing and quality inspection, PCB handling and ICT, metal stamping and press tending, CNC machine tending, co-packing and end of line packaging. On the basis of industry vertical, it is segregated into automotive, electrical and electronics, food and beverages, healthcare, metal and machinery, rubber and plastic and others. Region wise, the market is analyzed across North America, Europe, Asia-Pacific, and LAMEA.[]

The key players operating in the market include ABB Ltd., Clearpath Robotics, Denso Corporation, FANUC CORPORATION, iRobot Corporation, KUKA AG, Microsoft Corporation, OMRON Corporation, Universal Robotics, and Yaskawa Electric Corp. Furthermore, it highlights the strategies of the key players to improve the market share and sustain competition.[]

Key Benefits For Stakeholders

- This report provides a quantitative analysis of the market segments, current trends, estimations, and dynamics of the robot operating system market analysis from 2021 to 2031 to identify the prevailing robot operating system market opportunities.
- The market research is offered along with information related to key drivers, restraints, and opportunities.
- Porter's five forces analysis highlights the potency of buyers and suppliers to enable stakeholders make profit-oriented business decisions and strengthen their supplier-buyer network.
- In-depth analysis of the robot operating system market segmentation assists to determine the prevailing market opportunities.
- Major countries in each region are mapped according to their revenue contribution to the global market.
- Market player positioning facilitates benchmarking and provides a clear understanding of the present position of the market players.
- The report includes the analysis of the regional as well as global robot operating system market trends, key players, market segments, application areas, and market growth strategies.

Key Market Segments

By Robot Type

- SCARA Robots
- Articulated Robots
- Parallel Robots
- Collaborative Robots
- Others

By Application

- Co-packing and End of Line Packaging
- Plastic Injection and Blow Molding
- Pick and Place
- Testing and Quality Inspection
- PCB Handling and ICT
- Metal Stamping and Press Tending
- CNC Machine Tending

By Industry Vertical

- Electrical and Electronics
- Metal and Machinery
- Food and Beverages
- Healthcare
- Automotive
- Rubber and Plastic
- Others

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

By Region

- North America
- U.S.
- Canada
- Europe
- UK
- Germany
- France
- Italy
- Spain
- Rest of Europe
- Asia-Pacific
- China
- India
- Japan
- Australia
- South Korea
- Rest of Asia-Pacific
- LAMEA
- Latin America
- Middle East
- Africa
- Key Market Players
- KUKA AG
- FANUC CORPORATION
- Yaskawa Electric Corp.
- Microsoft Corporation
- OMRON Corporation
- Clearpath Robotics
- iRobot Corporation
- ABB Ltd.
- Denso Corporation
- Universal Robotics

Table of Contents:

CHAPTER 1:INTRODUCTION

- 1.1.Report description
- 1.2.Key market segments
- 1.3.Key benefits to the stakeholders
- 1.4.Research Methodology
 - 1.4.1.Secondary research
 - 1.4.2.Primary research
 - 1.4.3.Analyst tools and models

CHAPTER 2:EXECUTIVE SUMMARY

- 2.1.Key findings of the study
- 2.2.CXO Perspective

CHAPTER 3:MARKET OVERVIEW

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 3.1. Market definition and scope
- 3.2. Key findings
 - 3.2.1. Top investment pockets
- 3.3. Porter's five forces analysis
- 3.4. Market dynamics
 - 3.4.1. Drivers
 - 3.4.1.1. Increase in adoption of automotive in various industry
 - 3.4.1.2. Increase in adoption of ROS by manufacturer
 - 3.4.1.3. Increasing demand of collaborative robots
 - 3.4.2. Restraints
 - 3.4.2.1. High maintenance and installation cost of robots
 - 3.4.3. Opportunities
 - 3.4.3.1. Adoption of Robot as a Service

3.5. COVID-19 Impact Analysis on the market

CHAPTER 4: ROBOT OPERATING SYSTEM MARKET, BY ROBOT TYPE

4.1 Overview

4.1.1 Market size and forecast

4.2. SCARA Robots

4.2.1 Key market trends, growth factors and opportunities

4.2.2 Market size and forecast, by region

4.2.3 Market share analysis by country

4.3. Articulated Robots

4.3.1 Key market trends, growth factors and opportunities

4.3.2 Market size and forecast, by region

4.3.3 Market share analysis by country

4.4. Parallel Robots

4.4.1 Key market trends, growth factors and opportunities

4.4.2 Market size and forecast, by region

4.4.3 Market share analysis by country

4.5. Collaborative Robots

4.5.1 Key market trends, growth factors and opportunities

4.5.2 Market size and forecast, by region

4.5.3 Market share analysis by country

4.6. Others

4.6.1 Key market trends, growth factors and opportunities

4.6.2 Market size and forecast, by region

4.6.3 Market share analysis by country

CHAPTER 5: ROBOT OPERATING SYSTEM MARKET, BY APPLICATION

5.1 Overview

5.1.1 Market size and forecast

5.2. Plastic Injection and Blow Molding

5.2.1 Key market trends, growth factors and opportunities

5.2.2 Market size and forecast, by region

5.2.3 Market share analysis by country

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 5.3. Pick and Place
 - 5.3.1 Key market trends, growth factors and opportunities
 - 5.3.2 Market size and forecast, by region
 - 5.3.3 Market share analysis by country
 - 5.4. Testing and Quality Inspection
 - 5.4.1 Key market trends, growth factors and opportunities
 - 5.4.2 Market size and forecast, by region
 - 5.4.3 Market share analysis by country
 - 5.5. PCB Handling and ICT
 - 5.5.1 Key market trends, growth factors and opportunities
 - 5.5.2 Market size and forecast, by region
 - 5.5.3 Market share analysis by country
 - 5.6. Metal Stamping and Press Tending
 - 5.6.1 Key market trends, growth factors and opportunities
 - 5.6.2 Market size and forecast, by region
 - 5.6.3 Market share analysis by country
 - 5.7. CNC Machine Tending
 - 5.7.1 Key market trends, growth factors and opportunities
 - 5.7.2 Market size and forecast, by region
 - 5.7.3 Market share analysis by country
 - 5.8. Co-packing and End of Line Packaging
 - 5.8.1 Key market trends, growth factors and opportunities
 - 5.8.2 Market size and forecast, by region
 - 5.8.3 Market share analysis by country
- CHAPTER 6: ROBOT OPERATING SYSTEM MARKET, BY INDUSTRY VERTICAL
- 6.1 Overview
 - 6.1.1 Market size and forecast
 - 6.2. Electrical and Electronics
 - 6.2.1 Key market trends, growth factors and opportunities
 - 6.2.2 Market size and forecast, by region
 - 6.2.3 Market share analysis by country
 - 6.3. Metal and Machinery
 - 6.3.1 Key market trends, growth factors and opportunities
 - 6.3.2 Market size and forecast, by region
 - 6.3.3 Market share analysis by country
 - 6.4. Food and Beverages
 - 6.4.1 Key market trends, growth factors and opportunities
 - 6.4.2 Market size and forecast, by region
 - 6.4.3 Market share analysis by country
 - 6.5. Healthcare
 - 6.5.1 Key market trends, growth factors and opportunities
 - 6.5.2 Market size and forecast, by region
 - 6.5.3 Market share analysis by country
 - 6.6. Automotive
 - 6.6.1 Key market trends, growth factors and opportunities
 - 6.6.2 Market size and forecast, by region
 - 6.6.3 Market share analysis by country

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 6.7. Rubber and Plastic
 - 6.7.1 Key market trends, growth factors and opportunities
 - 6.7.2 Market size and forecast, by region
 - 6.7.3 Market share analysis by country
- 6.8. Others
 - 6.8.1 Key market trends, growth factors and opportunities
 - 6.8.2 Market size and forecast, by region
 - 6.8.3 Market share analysis by country
- CHAPTER 7: ROBOT OPERATING SYSTEM MARKET, BY REGION
 - 7.1 Overview
 - 7.1.1 Market size and forecast
 - 7.2 North America
 - 7.2.1 Key trends and opportunities
 - 7.2.2 North America Market size and forecast, by Robot Type
 - 7.2.3 North America Market size and forecast, by Application
 - 7.2.4 North America Market size and forecast, by Industry Vertical
 - 7.2.5 North America Market size and forecast, by country
 - 7.2.5.1 U.S.
 - 7.2.5.1.1 Key market trends, growth factors and opportunities
 - 7.2.5.1.2 Market size and forecast, by Robot Type
 - 7.2.5.1.3 Market size and forecast, by Application
 - 7.2.5.1.4 Market size and forecast, by Industry Vertical
 - 7.2.5.2 Canada
 - 7.2.5.2.1 Key market trends, growth factors and opportunities
 - 7.2.5.2.2 Market size and forecast, by Robot Type
 - 7.2.5.2.3 Market size and forecast, by Application
 - 7.2.5.2.4 Market size and forecast, by Industry Vertical
 - 7.3 Europe
 - 7.3.1 Key trends and opportunities
 - 7.3.2 Europe Market size and forecast, by Robot Type
 - 7.3.3 Europe Market size and forecast, by Application
 - 7.3.4 Europe Market size and forecast, by Industry Vertical
 - 7.3.5 Europe Market size and forecast, by country
 - 7.3.5.1 UK
 - 7.3.5.1.1 Key market trends, growth factors and opportunities
 - 7.3.5.1.2 Market size and forecast, by Robot Type
 - 7.3.5.1.3 Market size and forecast, by Application
 - 7.3.5.1.4 Market size and forecast, by Industry Vertical
 - 7.3.5.2 Germany
 - 7.3.5.2.1 Key market trends, growth factors and opportunities
 - 7.3.5.2.2 Market size and forecast, by Robot Type
 - 7.3.5.2.3 Market size and forecast, by Application
 - 7.3.5.2.4 Market size and forecast, by Industry Vertical
 - 7.3.5.3 France
 - 7.3.5.3.1 Key market trends, growth factors and opportunities
 - 7.3.5.3.2 Market size and forecast, by Robot Type
 - 7.3.5.3.3 Market size and forecast, by Application

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 7.3.5.3.4 Market size and forecast, by Industry Vertical
- 7.3.5.4 Italy
 - 7.3.5.4.1 Key market trends, growth factors and opportunities
 - 7.3.5.4.2 Market size and forecast, by Robot Type
 - 7.3.5.4.3 Market size and forecast, by Application
 - 7.3.5.4.4 Market size and forecast, by Industry Vertical
- 7.3.5.5 Spain
 - 7.3.5.5.1 Key market trends, growth factors and opportunities
 - 7.3.5.5.2 Market size and forecast, by Robot Type
 - 7.3.5.5.3 Market size and forecast, by Application
 - 7.3.5.5.4 Market size and forecast, by Industry Vertical
- 7.3.5.6 Rest of Europe
 - 7.3.5.6.1 Key market trends, growth factors and opportunities
 - 7.3.5.6.2 Market size and forecast, by Robot Type
 - 7.3.5.6.3 Market size and forecast, by Application
 - 7.3.5.6.4 Market size and forecast, by Industry Vertical
- 7.4 Asia-Pacific
 - 7.4.1 Key trends and opportunities
 - 7.4.2 Asia-Pacific Market size and forecast, by Robot Type
 - 7.4.3 Asia-Pacific Market size and forecast, by Application
 - 7.4.4 Asia-Pacific Market size and forecast, by Industry Vertical
 - 7.4.5 Asia-Pacific Market size and forecast, by country
 - 7.4.5.1 China
 - 7.4.5.1.1 Key market trends, growth factors and opportunities
 - 7.4.5.1.2 Market size and forecast, by Robot Type
 - 7.4.5.1.3 Market size and forecast, by Application
 - 7.4.5.1.4 Market size and forecast, by Industry Vertical
 - 7.4.5.2 India
 - 7.4.5.2.1 Key market trends, growth factors and opportunities
 - 7.4.5.2.2 Market size and forecast, by Robot Type
 - 7.4.5.2.3 Market size and forecast, by Application
 - 7.4.5.2.4 Market size and forecast, by Industry Vertical
 - 7.4.5.3 Japan
 - 7.4.5.3.1 Key market trends, growth factors and opportunities
 - 7.4.5.3.2 Market size and forecast, by Robot Type
 - 7.4.5.3.3 Market size and forecast, by Application
 - 7.4.5.3.4 Market size and forecast, by Industry Vertical
 - 7.4.5.4 Australia
 - 7.4.5.4.1 Key market trends, growth factors and opportunities
 - 7.4.5.4.2 Market size and forecast, by Robot Type
 - 7.4.5.4.3 Market size and forecast, by Application
 - 7.4.5.4.4 Market size and forecast, by Industry Vertical
 - 7.4.5.5 South Korea
 - 7.4.5.5.1 Key market trends, growth factors and opportunities
 - 7.4.5.5.2 Market size and forecast, by Robot Type
 - 7.4.5.5.3 Market size and forecast, by Application
 - 7.4.5.5.4 Market size and forecast, by Industry Vertical

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 7.4.5.6 Rest of Asia-Pacific
 - 7.4.5.6.1 Key market trends, growth factors and opportunities
 - 7.4.5.6.2 Market size and forecast, by Robot Type
 - 7.4.5.6.3 Market size and forecast, by Application
 - 7.4.5.6.4 Market size and forecast, by Industry Vertical
- 7.5 LAMEA
 - 7.5.1 Key trends and opportunities
 - 7.5.2 LAMEA Market size and forecast, by Robot Type
 - 7.5.3 LAMEA Market size and forecast, by Application
 - 7.5.4 LAMEA Market size and forecast, by Industry Vertical
 - 7.5.5 LAMEA Market size and forecast, by country
 - 7.5.5.1 Latin America
 - 7.5.5.1.1 Key market trends, growth factors and opportunities
 - 7.5.5.1.2 Market size and forecast, by Robot Type
 - 7.5.5.1.3 Market size and forecast, by Application
 - 7.5.5.1.4 Market size and forecast, by Industry Vertical
 - 7.5.5.2 Middle East
 - 7.5.5.2.1 Key market trends, growth factors and opportunities
 - 7.5.5.2.2 Market size and forecast, by Robot Type
 - 7.5.5.2.3 Market size and forecast, by Application
 - 7.5.5.2.4 Market size and forecast, by Industry Vertical
 - 7.5.5.3 Africa
 - 7.5.5.3.1 Key market trends, growth factors and opportunities
 - 7.5.5.3.2 Market size and forecast, by Robot Type
 - 7.5.5.3.3 Market size and forecast, by Application
 - 7.5.5.3.4 Market size and forecast, by Industry Vertical

CHAPTER 8: COMPETITIVE LANDSCAPE

- 8.1. Introduction
- 8.2. Top winning strategies
- 8.3. Product Mapping of Top 10 Player
- 8.4. Competitive Dashboard
- 8.5. Competitive Heatmap
- 8.6. Top player positioning, 2021

CHAPTER 9: COMPANY PROFILES

- 9.1 KUKA AG
 - 9.1.1 Company overview
 - 9.1.2 Key Executives
 - 9.1.3 Company snapshot
 - 9.1.4 Operating business segments
 - 9.1.5 Product portfolio
 - 9.1.6 Business performance
 - 9.1.7 Key strategic moves and developments
- 9.2 FANUC CORPORATION
 - 9.2.1 Company overview
 - 9.2.2 Key Executives
 - 9.2.3 Company snapshot
 - 9.2.4 Operating business segments

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 9.2.5 Product portfolio
- 9.2.6 Business performance
- 9.2.7 Key strategic moves and developments
- 9.3 Yaskawa Electric Corp.
 - 9.3.1 Company overview
 - 9.3.2 Key Executives
 - 9.3.3 Company snapshot
 - 9.3.4 Operating business segments
 - 9.3.5 Product portfolio
 - 9.3.6 Business performance
 - 9.3.7 Key strategic moves and developments
- 9.4 Microsoft Corporation
 - 9.4.1 Company overview
 - 9.4.2 Key Executives
 - 9.4.3 Company snapshot
 - 9.4.4 Operating business segments
 - 9.4.5 Product portfolio
 - 9.4.6 Business performance
 - 9.4.7 Key strategic moves and developments
- 9.5 OMRON Corporation
 - 9.5.1 Company overview
 - 9.5.2 Key Executives
 - 9.5.3 Company snapshot
 - 9.5.4 Operating business segments
 - 9.5.5 Product portfolio
 - 9.5.6 Business performance
 - 9.5.7 Key strategic moves and developments
- 9.6 Clearpath Robotics
 - 9.6.1 Company overview
 - 9.6.2 Key Executives
 - 9.6.3 Company snapshot
 - 9.6.4 Operating business segments
 - 9.6.5 Product portfolio
 - 9.6.6 Business performance
 - 9.6.7 Key strategic moves and developments
- 9.7 iRobot Corporation
 - 9.7.1 Company overview
 - 9.7.2 Key Executives
 - 9.7.3 Company snapshot
 - 9.7.4 Operating business segments
 - 9.7.5 Product portfolio
 - 9.7.6 Business performance
 - 9.7.7 Key strategic moves and developments
- 9.8 ABB Ltd.
 - 9.8.1 Company overview
 - 9.8.2 Key Executives
 - 9.8.3 Company snapshot

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 9.8.4 Operating business segments
- 9.8.5 Product portfolio
- 9.8.6 Business performance
- 9.8.7 Key strategic moves and developments
- 9.9 Denso Corporation
 - 9.9.1 Company overview
 - 9.9.2 Key Executives
 - 9.9.3 Company snapshot
 - 9.9.4 Operating business segments
 - 9.9.5 Product portfolio
 - 9.9.6 Business performance
 - 9.9.7 Key strategic moves and developments
- 9.10 Universal Robotics
 - 9.10.1 Company overview
 - 9.10.2 Key Executives
 - 9.10.3 Company snapshot
 - 9.10.4 Operating business segments
 - 9.10.5 Product portfolio
 - 9.10.6 Business performance
 - 9.10.7 Key strategic moves and developments

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

Robot Operating System Market By Robot Type (SCARA Robots, Articulated Robots, Parallel Robots, Collaborative Robots, Others), By Application (Plastic Injection and Blow Molding, Pick and Place, Testing and Quality Inspection, PCB Handling and ICT, Metal Stamping and Press Tending, CNC Machine Tending, Co-packing and End of Line Packaging), By Industry Vertical (Electrical and Electronics, Metal and Machinery, Food and Beverages, Healthcare, Automotive, Rubber and Plastic, Others): Global Opportunity Analysis and Industry Forecast, 2021-2031

Market Report | 2023-01-01 | 420 pages | Allied Market Research

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
	Cloud Access License	\$3456.00
	Business User License	\$5730.00
	Enterprise License	\$9600.00
		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*

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-03-10"/>
		Signature	<input type="text"/>