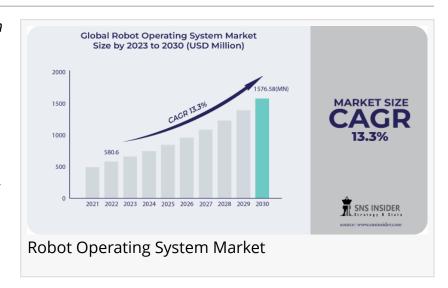


# Robot Operating System Market to Cross USD 1576.58 Million by 2030 due to Rising Demand for Automation and Robotics

The growth of the robot operating system market is fueled by the increasing demand for automation, technological advancements and the collaborative robotics.

AUSTIN, TEXAS, UNITED STATES, January 26, 2024 /EINPresswire.com/ --Market Report Scope

The <u>Robot Operating System Market</u>, as indicated by the SNS Insider report, achieved a valuation of USD 580.6



million in 2022. Projections suggest a substantial growth, reaching USD 1576.58 million by 2030, with an anticipated compound annual growth rate (CAGR) of 13.3% throughout the forecast period from 2023 to 2030.

Robot Operating System (ROS) is a middlewarez framework used for developing robotic software. It provides an open-source platform that simplifies the complexities of programming various robotic systems, offering a standardized way for different components of a robot to communicate with each other. ROS has gained significant traction in the field of robotics due to its flexibility, modularity, and extensive community support.

# Market Analysis

The robot operating system market is poised for substantial growth, driven by several key factors. The increasing adoption of automation across various industries is a significant driver for the growth of the ROS market. Industries such as manufacturing, healthcare, and logistics are leveraging robotic systems for enhanced efficiency and productivity. Continuous technological advancements in robotics, artificial intelligence, and sensor technologies contribute to the evolution and expansion of the ROS market. The integration of advanced features and capabilities attracts industries seeking cutting-edge solutions. Increased investment in research and development activities related to robotics, supported by both public and private sectors,

propels the growth of the ROS market. These investments spur innovation and the development of sophisticated robotic applications.

# Key Players Listed in this Report are:

- ABB Ltd. (Switzerland)
- FANUC (Japan)
- KUKA AG (Germany)
- Yaskawa Electric Corporation (Japan)
- Denso (Japan)
- Microsoft (US)
- Omron Corporation (Japan)
- Universal Robotics (Denmark)
- Clearpath Robots (Canada)
- iRobot Corporation (US)

## Impact of Recession

The ongoing recession has both positive and negative implications for the robot operating system market. In times of economic downturn, companies seek cost-efficient solutions to maintain or enhance productivity. ROS, with its open-source nature, provides a cost-effective platform for the development of robotic applications, making it an attractive option for businesses looking to optimize operations. The recession may lead to labor shortages or increased labor costs. This situation can drive the adoption of robotic systems, including ROS, as companies explore automation to overcome workforce challenges and maintain operational continuity.

# Impact of Russia-Ukraine War

The Russia-Ukraine war has profound implications for the global economy and various industries, including the robot operating system market. The conflict may spur nations to invest more heavily in defense technologies, including robotics. This heightened focus on defense applications could lead to increased demand for ROS in the development of advanced robotic systems for military purposes. During times of geopolitical tension, nations often accelerate their efforts to innovate and strengthen their technological capabilities. This push for innovation may drive advancements in robotics and automation, benefiting the ROS market.

Robot Operating System Market Key Segments

By Robot Type

- Articulated Robots
- SCARA Robots
- Parallel Robots
- Cartesian Robots
- Collaborative Robots
- Autonomous Mobile Robots

# By Application

- Pick and Place
- Plastic Injection and Blow Molding
- Printed Circuit Board Handling and Information Communication and Technology
- Testing & Quality Inspection
- Metal Stamping and Press Trending
- Computer Numerical Control Machine Tending
- · Co-Packaging and End of Line Packaging
- Mapping and Navigation
- Inventory Management
- Home Automation & Security
- Personal Assistance

# By End-User Industry

- Automotive
- Electrical & Electronics
- Metal & Machinery
- Plastic, Rubber, and Chemicals
- Food and Beverages
- Healthcare
- Warehousing & Logistics
- Domestic & Personal Robotics
- Others

# Key Regional Development

North America stands out as a key hub for ROS adoption, driven by a strong focus on technological innovation and a well-established robotics industry. The region's extensive research and development activities, particularly in the United States, contribute to the continuous growth of the ROS market. Europe follows closely, with a robust robotics ecosystem and a focus on collaborative robotics. Countries like Germany and the United Kingdom are at the forefront of integrating ROS into industrial processes, fostering growth in the European robot operating system market. The Asia-Pacific region, led by countries like Japan and South Korea, showcases a significant appetite for robotics and automation. The rapid industrialization and investment in cutting-edge technologies contribute to the increasing adoption of ROS in various applications.

Key Takeaway from Robot Operating System Market Study

- Within the robot operating system market, the articulated robots segment emerges as a
  dominant force, driven by its versatility and widespread applications. The articulated robotic
  arms excel in tasks that require precision and accuracy. Industries such as automotive
  manufacturing, electronics, and aerospace leverage these robots for intricate and delicate
  operations.
- In the robot operating system market, the automotive segment emerges as a frontrunner, fueled by the demand for automation in the automotive industry. The automotive industry heavily relies on automation for manufacturing processes. ROS facilitates the integration of robotic systems in tasks such as welding, painting, and assembly, enhancing efficiency and reducing production costs.

Recent Developments Related to Robot Operating System Market

- ProStar, a renowned leader in utility mapping solutions, recently unveiled its strategic move to integrate its cutting-edge software with ImpulseRadar's Ground Penetrating Radar (GPR) technology. This collaboration marks a significant step forward in advancing the capabilities of utility mapping, offering a comprehensive solution to industry professionals.
- IDS GeoRadar has introduced a major Cloud-Based AI Solution named AiMaps. This innovative offering represents a significant leap forward in the realm of geospatial intelligence and artificial intelligence applications for the geotechnical industry.

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