

# Robot Operating System (ROS)-Based Robot Market Report Examines Market Dynamics, Segment Insights And Company Strategies

*The Business Research Company's ROS-Based Robot Market Report 2026 – Market Size, Trends, And Global Forecast 2026-2035*

LONDON, GREATER LONDON, UNITED KINGDOM, June 18, 2026

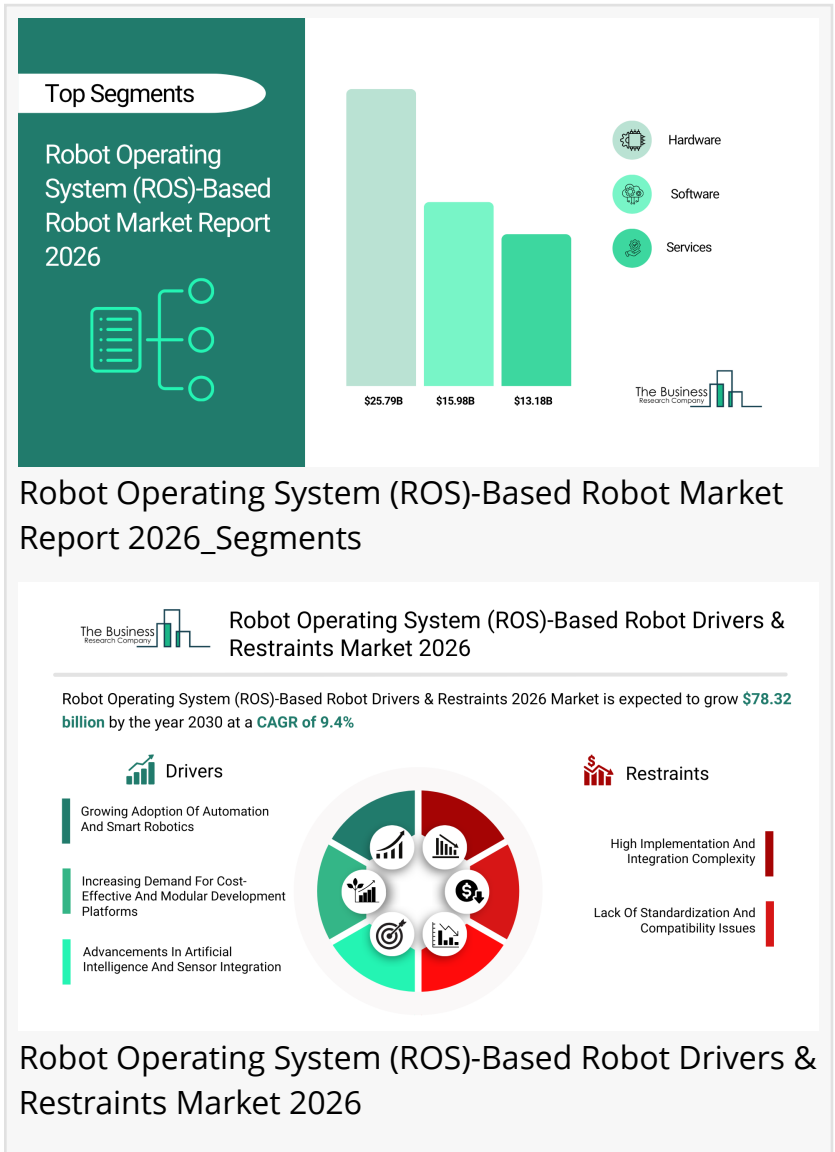
/EINPresswire.com/ -- "[Robot Operating System \(ROS\)-Based Robot market](#) to surpass \$78 billion in 2030.

Within the broader Aerospace & Defense industry, which is expected to be \$1,166 billion by 2030, the Robot Operating System (ROS)-Based Robot market is estimated to account for nearly 7% of the total market value.

Which Will Be The Biggest Region In The Robot Operating System (ROS)-Based Robot Market In 2030?

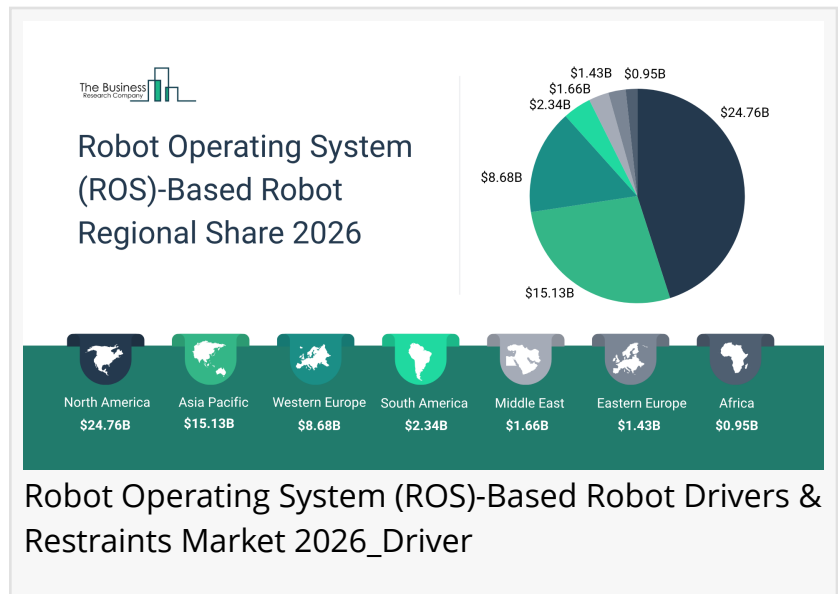
North America will be the largest region in the robot operating system (ROS)-based robot market in 2030, valued at \$34 billion. The market is expected to grow from \$23 billion in 2025 at a compound annual growth rate (CAGR) of 9%. The strong growth

can be attributed to strong adoption of automation across manufacturing, logistics, and healthcare sectors, increasing integration of AI and machine learning with robotics systems, rising investments in robotics R&D and innovation ecosystems, strong presence of leading robotics and technology companies, growing demand for collaborative and autonomous robotic solutions, and supportive government initiatives promoting advanced manufacturing and industrial automation across the USA and Canada.



Which Will Be The Largest Country In The Global Robot Operating System (ROS)-Based Robot Market In 2030? The USA will be the largest country in the robot operating system (ROS)-based robot market in 2030, valued at \$30 billion. The market is expected to grow from \$20 billion in 2025 at a compound annual growth rate (CAGR) of 8%. The strong growth can be attributed to leading global hub for robotics R&D with strong concentration of ROS-based robot manufacturers,

high adoption of collaborative robots (cobots) in automotive and electronics manufacturing, expanding use of autonomous mobile robots in e-commerce and warehouse fulfillment, strong defense and aerospace sector demand for ROS-based unmanned systems, continuous advancements in cloud robotics and simulation platforms, and rising integration of ROS with AI and computer vision technologies across the country.



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What Will Be Largest Segment In The Robot Operating System (ROS)-Based Robot Market In 2030?

The robot operating system (ROS)-based robot market is segmented by component into hardware, software, and services. The hardware market will be the largest segment of the robot operating system (ROS)-based robot market segmented by component, accounting for 46% or \$36 billion of the total in 2030. The hardware market will be supported by the increasing deployment of advanced robotic platforms across industrial and commercial applications, rising demand for high-performance sensors, controllers, and actuators, growing adoption of autonomous and collaborative robots in manufacturing and logistics, expansion of smart factory and warehouse automation infrastructure, continuous advancements in robotics hardware design and integration capabilities, and strong investments in robotics hardware manufacturing and deployment ecosystems.

The robot operating system (ROS)-based robot market is segmented by robot type into mobile robots, industrial robots, collaborative robots, and service robots.

The robot operating system (ROS)-based robot market is segmented by end user into manufacturing, healthcare providers, agricultural enterprises, logistics companies, and service providers.

What Is The Expected CAGR For The Robot Operating System (ROS)-Based Robot Market Leading Up To 2030?

The expected CAGR for the robot operating system (ROS)-based robot market leading up to 2030 is 9%.

What Will Be The Growth Driving Factors In The Global Robot Operating System (ROS)-Based Robot Market In The Forecast Period?

The rapid growth of the global robot operating system (ROS)-based robot market leading up to 2030 will be driven by the following key factors that are expected to accelerate adoption of automation and smart robotics, increase demand for cost-effective and modular robotic development platforms, and expand advancements in artificial intelligence and sensor integration across robotics applications.

**Growing Adoption Of Automation And Smart Robotics** - The growing adoption of automation and smart robotics is expected to become a key growth driver for the robot operating system (ROS)-based robot market by 2030. Growing adoption of automation and smart robotics acts as a major driver for the ROS-based robot market because industries such as manufacturing, logistics, healthcare, and agriculture increasingly rely on robots to improve efficiency, accuracy, and productivity. ROS provides a flexible and scalable framework that simplifies the development and deployment of such robotic systems. Businesses benefit from reduced operational costs and enhanced process optimization through automation. This rising dependence on intelligent robotic systems encourages continuous integration of ROS platforms. As a result, the growing adoption of automation and smart robotics is anticipated to contribute to 2.5% annual growth in the market.

**Increasing Demand For Cost-Effective And Modular Development Platforms** - The increasing demand for cost-effective and modular development platforms is expected to emerge as a major factor driving the expansion of the robot operating system (ROS)-based robot market by 2030. ROS enables developers to reuse existing code, tools, and software components, reducing overall development time and expenses. Its open-source nature allows organizations to build customized robotic solutions without investing heavily in proprietary systems. This modularity accelerates innovation and lowers barriers to entry for startups and research institutions. Companies can quickly prototype and scale robotic applications using ROS ecosystems. This affordability and flexibility drive widespread adoption of ROS-based robots. Consequently, the increasing demand for cost-effective and modular development platforms is projected to contribute to around 2.3% annual growth in the market.

**Advancements In Artificial Intelligence And Sensor Integration** - The advancements in artificial intelligence and sensor integration are expected to act as a key growth catalyst for the robot operating system (ROS)-based robot market by 2030. Advancements in artificial intelligence and sensor integration act as a major driver for the ROS-based robot market because ROS supports seamless integration of AI algorithms, machine learning models, and advanced sensors for

perception and decision-making. These capabilities enhance robot autonomy, enabling them to perform complex tasks such as navigation, object recognition, and real-time data analysis. Industries leverage these intelligent systems to improve operational efficiency and safety. Continuous technological improvements in sensors and AI further expand the capabilities of ROS-based robots. This technological synergy fuels market growth and accelerates innovation in robotics applications. Therefore, the advancements in artificial intelligence and sensor integration are projected to contribute to approximately 2.0% annual growth in the market.

Access The Detailed Robot Operating System (ROS)-Based Robot Market Report Here  
[https://www.thebusinessresearchcompany.com/report/ros-based-robot-global-market-report?utm\\_source=EINPresswire&utm\\_medium=Paid&utm\\_campaign=Jun\\_PR](https://www.thebusinessresearchcompany.com/report/ros-based-robot-global-market-report?utm_source=EINPresswire&utm_medium=Paid&utm_campaign=Jun_PR)

What Are The Key Growth Opportunities In The Robot Operating System (ROS)-Based Robot Market In 2030?

The most significant growth opportunities are anticipated in the hardware market, the software market, and the services market. Collectively, these segments are projected to contribute over \$29 billion in market value by 2030, driven by increasing adoption of autonomous and collaborative robotics across industrial and commercial sectors, rapid advancements in AI, machine learning, and edge computing integration with robotic systems, rising demand for flexible and scalable robotics platforms, expansion of smart manufacturing and warehouse automation infrastructure, growing investments in robotics R&D and innovation ecosystems, and increasing need for end-to-end deployment, integration, and maintenance services. This surge reflects the accelerating focus on improving automation efficiency, enhancing operational intelligence, and enabling adaptive robotic systems, fuelling transformative growth within the broader robotics technology industry.

The hardware market is projected to grow by \$13 billion, the software market by \$9 billion, and the services market by \$7 billion over the next five years from 2025 to 2030.

Key enhancements in our 2026 market reports include:

- Market attractiveness scoring and analysis
- Total addressable market (TAM) analysis
- Company scoring matrix graphics and tables
- Excel-based forecasting dashboards
- Market hotspots infographics
- Key technologies and future trend analysis
- Updated graphics and tables

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