

Indoor Robotics-Navigation LiDAR Market Size, Share, Competitive Landscape and Trend Analysis Report

The Business Research Company's Indoor Robotics-Navigation LiDAR Global Market Report 2025 – Market Size, Trends, And Global Forecast 2025-2034

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/EINPresswire.com/ -- How Large Will The [Indoor Robotics-Navigation LiDAR](#) Market Be By 2025?

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The market size for indoor robotics-navigation LiDAR has witnessed significant expansion in previous years. A growth from \$1.24 billion in 2024 to \$1.50 billion in 2025 is projected, resulting in a compound annual growth rate (CAGR) of 21.0%. The surge experienced in the past can be

credited to a rise in the demand for warehouse automation, augmented use of robotics in manufacturing, an increasing call for efficient indoor logistics, proliferation of robotics applications in healthcare, and surging dependence on drones for indoor inspection.

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Anticipated to surge dramatically in the coming years, the market size for indoor robotics-navigation LiDAR is predicted to expand to \$3.20 billion by 2029, with a compound annual growth rate (CAGR) of 20.8%. The expected evolution in the forecast timeframe is a result of factors such as increased use of service robots in retail

sectors, a growing appeal for autonomous cleaning robots, progress in smart infrastructure projects, enhanced utilization of robotics in aged-care and healthcare aid, and a rising need for real-time indoor mapping. Key trends that are expected to manifest in the forecast period encompass technological advancements, the emergence of compact lidar sensors, progression in the development of sensor fusion solutions, increased investment in research and development activities, and the evolution in simultaneous localization and mapping.

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What Are The Major Driving Forces Influencing The Indoor Robotics-Navigation LiDAR Market Landscape?

The growth of the indoor robotics-navigation LiDAR market is projected to be fueled by the escalating demand for robots. Robotics here denotes autonomous navigation systems employed in warehouses, factories, and indoor facilities to transport commodities, streamline workflows, and enhance operational efficiency. Automation is increasingly being adopted across various industries to mitigate challenges such as high labor cost, workforce shortage, and the need for swift e-commerce and manufacturing order fulfillment, thereby boosting the demand for robots. Indoor robotics navigation LiDAR, utilized for offering accurate real-time mapping and obstruction detection, empowers robots to navigate intricate indoor settings safely and independently, thus augmenting its burgeoning demand in the robotics sector. For instance, The National Institute for Occupational Safety and Health (NIOSH), a US-based federal research agency determined to prevent work-related injuries and illnesses, reported in February 2024, that 158,000 service robots were sold for professional purposes in 2022, marking a 48% rise from the previous year's figure of 106,757 units. Hence, the soaring demand for robots is propelling the growth of the indoor robotics-navigation LiDAR market.

Who Are The Top Players In The Indoor Robotics-Navigation LiDAR Market?

Major players in the Indoor Robotics-Navigation LiDAR Global Market Report 2025 include:

- LG Electronics Inc.
- Omron Corporation
- Hexagon AB
- SICK AG
- Datalogic S.p.A.
- Hesai Technology Co. Ltd.
- Suteng Innovation Technology Co. Ltd.
- Shenzhen Leishen Intelligent System Co. Ltd.
- ForwardX Robotics Inc.
- Velodyne Lidar Inc.

What Are The Key Trends Shaping The Indoor Robotics-Navigation LiDAR Industry?

Main companies in the indoor robotics navigation LiDAR market are prioritising advancements such as integrated perception LiDAR systems to enhance navigation precision, streamline systems, and decrease installation expenses. This system fuses solid-state LiDAR tools with built-in perception software for in-device detection, categorising, and tracking of items, eliminating the need for external processing units. For example, Opsys Technologies, an Israeli LiDAR technology company, in April 2025, debuted the ALTOS LiDAR platform with range variants of 70, 150, and 300 meters, incorporating perception software directly onto the sensor. The product boosts situational understanding by offering real-time processed 3D object recognition, simplifies installation with Power-over-Ethernet (PoE) connectivity, and guarantees dependability

with a broad operating temperature range from -30°C to +65°C while being NDAA compliant.

Market Share And Forecast By Segment In The Global Indoor Robotics-Navigation LiDAR Market

The indoor robotics-navigation LiDAR market covered in this report is segmented as

- 1) By Product Type: Solid-State Light Detection And Ranging (LiDAR), Mechanical Light Detection And Ranging (LiDAR), Flash Light Detection And Ranging (LiDAR), Other Product Types
- 2) By Technology: Time Of Flight, Phase Shift, Triangulation, Other Technologies
- 3) By Application: Autonomous Mobile Robots, Automated Guided Vehicles, Drones, Other Applications
- 4) By End-User: Manufacturing, Warehousing And Logistics, Healthcare, Retail, Other End Users

Subsegment:

- 1) By Solid-State Light Detection And Ranging (LiDAR): Micro-Electro-Mechanical Systems (MEMS)-Based LiDAR, Optical Phased Array (OPA) LiDAR, Flash Solid-State LiDAR
- 2) By Mechanical Light Detection And Ranging (LiDAR): Spinning 2D LiDAR, Spinning 3D LiDAR, Multi-Beam Mechanical LiDAR
- 3) By Flash Light Detection And Ranging (LiDAR): Short-range Flash LiDAR, Mid-Range Flash LiDAR, Long-Range Flash LiDAR
- 4) By Other Product Types: Hybrid LiDAR, Frequency-Modulated Continuous Wave (FMCW) LiDAR, Time-Of-Flight (ToF) Camera-Based LiDAR

View the full indoor robotics-navigation lidar market report:

<https://www.thebusinessresearchcompany.com/report/indoor-robotics-navigation-lidar-global-market-report>

Indoor Robotics-Navigation LiDAR Market Regional Insights

In 2024, the Indoor Robotics-Navigation LiDAR Global Market Report revealed that North America held the leading position. The report also forecasts that Asia-Pacific will experience the most rapid growth in the ensuing period. Regions included in this report are North America, Asia-Pacific, Western Europe, Eastern Europe, South America, Middle East, and Africa.

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