+357 96 030922
info@marketpublishers.com

Physical AI Market by Offering (GPU, SoC, Memory, Sensors, Actuators, Software, Services), Robot Type (Industrial Robots, Professional Service Robots, Personal & Household Service Robots), Level of Autonomy, Vertical, and Region - Global Forecast to 2032

https://marketpublishers.com/r/PE7C8457CB6CEN.html
Date: April 2026
Pages: 335
Price: US$ 4,950.00 (Single User License)
ID: PE7C8457CB6CEN

Abstracts

The global physical AI market is projected to reach USD 1.50 billion in 2026 and USD 15.24 billion by 2032, exhibiting a CAGR of 47.2% during the forecast period. The physical AI market is driven by the increasing adoption of autonomous robotics across manufacturing, logistics, and healthcare to improve efficiency and reduce labor dependency. Advancements in AI compute, sensor fusion, and real-time processing enable robots to operate in complex, dynamic environments. Rising investments in humanoid robotics, digital twins, and AI platforms are boosting innovation and deployment. Additionally, the mounting demand for human-robot collaboration, scalable automation, and improved safety is further supporting market expansion across diverse industries.

“Industrial robots segment to register a high CAGR during the forecast period”

Industrial robots are projected to register a strong CAGR in the physical AI market, supported by the rapid shift toward intelligent and flexible manufacturing systems. Enterprises are increasingly deploying AI-enabled robots to enable dynamic task execution, real-time quality inspection, and autonomous workflow optimization. The growing emphasis on mass customization and shorter product lifecycles is driving the demand for robots that can quickly adapt to changing production requirements. Furthermore, advancements in human-robot collaboration, edge computing, and digital

+357 96 030922
info@marketpublishers.com

twins are enhancing operational efficiency and reducing deployment complexity. As industries continue to modernize and digitize their operations, industrial robots are emerging as a critical component of scalable and future-ready manufacturing ecosystems.

“Level 2: Intermediate (learning & adaptation) segment captured the largest market share in 2025”

Level 2 intermediate (learning & adaptation) autonomy is expected to hold the largest market share in 2025, as it offers a balanced combination of automation and human oversight. These systems can perform tasks such as navigation, object handling, and basic decision-making while still requiring human supervision for complex scenarios. This level of autonomy is widely adopted across industrial and service robotics due to its reliability, lower deployment risk, and ease of integration with existing workflows. Enterprises prefer Level 2 systems as they provide immediate productivity gains without requiring full infrastructure transformation. Additionally, the availability of mature technologies, such as computer vision, edge AI, and sensor fusion, supports widespread adoption. As a result, Level 2 autonomy remains the most commercially viable and scalable segment in the current market landscape.

“North America to hold a significant share of the physical AI market in 2032”

North America is expected to hold a significant share of the physical AI market in 2032, driven by the early adoption of advanced technologies and strong investment in AI and robotics. The region has a well-established ecosystem comprising AI technology providers, robotics companies, and system integrators, supporting rapid innovation and deployment. Industries such as manufacturing, logistics, healthcare, and retail are actively adopting physical AI solutions to enhance efficiency and automation. The presence of leading technology firms, strong R&D capabilities, and advanced cloud and computing infrastructure further strengthens market growth. Additionally, increasing focus on automation, labor optimization, and digital transformation initiatives is driving demand. Supportive government policies and funding for AI innovation also contribute to North America’s strong market position.

Extensive primary interviews were conducted with key industry experts in the physical AI market to determine and verify the market size for various segments and subsegments gathered through secondary research. The breakdown of primary participants for the report is shown below.

+357 96 030922
info@marketpublishers.com

The study contains insights from various industry experts, from component suppliers to Tier 1 companies and OEMs. The break-up of the primaries is as follows:

By Company Type: Tier 1–20%, Tier 2–40%, and Tier 3–40%

By Designation: C-level Executives–20%, Directors–30%, and Others–50%

By Region: North America–20%, Europe–30%, Asia Pacific–40%, and RoW–10%

The physical AI market is dominated by a few globally established players, such as NVIDIA Corporation (US), Moog (US), Festo (Germany), Qualcomm Technologies, Inc. (US), STMicroelectronics (Switzerland), Advanced Micro Devices, Inc. (US), Sony Semiconductor Solutions Corporation (Japan), Texas Instruments Incorporated (US), Intel Corporation (US), SK HYNIX INC. (South Korea), Hesai Group (China), Bosch Sensortec GmbH (Germany), and ABB (Switzerland).

The study includes an in-depth competitive analysis of these key players in the physical AI market, with their company profiles, recent developments, and key market strategies.

Research Coverage:

The report segments the physical AI market based on offering (hardware, software, and services), robot type (industrial robots, professional service robots, and personal & household robots), level of autonomy (level 1: basic, level 2: intermediate, and level 3: advanced), and vertical (industrial automation, automotive, logistics & supply chain, defense & security, healthcare, retail, education, and other verticals). It also discusses the market's drivers, restraints, opportunities, and challenges. It gives a detailed view of the market across four main regions (North America, Europe, the Asia Pacific, and RoW). The report includes an ecosystem analysis of key players.

Key Benefits of Buying the Report:

Analysis of key drivers (rising adoption of autonomous robotics across industrial and logistics sectors, advancements in edge AI compute, sensor fusion, and real-time processing capabilities, growing demand for human-robot collaboration enabled by physical AI systems), restraints (high upfront investment requirements and extended hardware replacement cycles, complex and

+357 96 030922
info@marketpublishers.com

unpredictable real-world environments limiting large-scale robot deployment), opportunities (integration of physical AI into defense modernization and autonomous security infrastructure, expansion of physical AI robotics in healthcare and medical assistance, deployment of AI-enabled agricultural and construction robotics in emerging economies, growth of digital twin and simulation platforms for training physical AI systems), challenges (lack of interoperability and standardization across multi-vendor robotics ecosystems, complexity in real-time multimodal perception and decision-making, limited availability of large-scale training datasets for physical task learning)

Product Development/Innovation: Detailed insights into upcoming technologies, research and development activities, and launches in the physical AI market

Market Development: Comprehensive information about lucrative markets through the analysis of the physical AI market across varied regions

Market Diversification: Exhaustive information about new products, software, and services, untapped geographies, recent developments, and investments in the physical AI market

Competitive Assessment: In-depth assessment of market shares, growth strategies, and product offerings of leading players, such as NVIDIA Corporation (US), Qualcomm Technologies, Inc. (US), Sony Semiconductor Solutions Corporation (Japan), Texas Instruments Incorporated (US), STMicroelectronics (Switzerland), and ABB (Switzerland)

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

17.5 AUTHOR DETAILS

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Physical AI Market by Offering (GPU, SoC, Memory, Sensors, Actuators, Software, Services), Robot Type (Industrial Robots, Professional Service Robots, Personal & Household Service Robots), Level of Autonomy, Vertical, and Region - Global Forecast to 2032

Product link: https://marketpublishers.com/r/PE7C8457CB6CEN.html

Price: US$ 4,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/PE7C8457CB6CEN.html