

Educational Robot Market Forecasts to 2032 - Global Analysis By Type (Humanoid Robots, and Non-Humanoid Robots), Component (Hardware, Software, and Services), Application, End User, and By Geography

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Abstracts

According to Statistics MRC, the Global Educational Robot Market is accounted for \$1.8 billion in 2025 and is expected to reach \$6.1 billion by 2032, growing at a CAGR of 18.3% during the forecast period. The educational robot covers programmable robots and learning kits used to teach coding, robotics, and STEM concepts in classrooms and training centers. It includes hardware, software platforms, and curriculum-aligned content. Growth is driven by emphasis on early STEM education, government digital learning initiatives, teacher demand for interactive tools, rising maker culture, and the need to build problem-solving and computational thinking skills from an early age.

Market Dynamics:

Driver:

Development of coding and computational thinking as core skills

Educational robots serve as tangible platforms that bridge the gap between abstract coding logic and physical execution. By allowing students to see the immediate results of their algorithms, these tools foster a more profound understanding of problem-solving and sequential reasoning. Furthermore, governments across North America and Europe are increasingly mandating robotics within K-12 curricula. This systematic integration ensures a sustained demand for programmable kits that support hands-on learning environments.

Restraint:

High initial cost of hardware and maintenance

Beyond the initial capital expenditure for advanced hardware, schools must account for recurring costs such as software licensing, periodic sensor calibration, and battery replacements. Additionally, the lack of standardized training infrastructure means institutions often need to invest heavily in professional development for educators. These cumulative expenses create a significant barrier to entry, particularly for public schools in developing economies or rural districts where budget allocations for specialized educational technology are often limited or nonexistent.

Opportunity:

Expansion into special needs education and language learning

Robots provide a non-judgmental, patient environment that is particularly effective for students with autism or social anxiety, helping them develop emotional regulation and communication skills. Furthermore, the integration of Natural Language Processing (NLP) allows these robots to act as interactive tutors, offering personalized feedback and pronunciation practice in multiple languages. This versatility enables manufacturers to diversify their product portfolios, tapping into specialized therapeutic and linguistic markets that demand high levels of human-robot interaction.

Threat:

Budget cuts in public education spending

In the wake of economic fluctuations, discretionary spending on high-tech learning tools is often the first to be reduced or deferred. Moreover, the long-term sustainability of the market is vulnerable to the expiration of one-time government grants or subsidies that initially fueled the adoption of robotics. When these funding streams dry up, schools may struggle to expand their existing programs or replace aging equipment, leading to a potential stagnation in market penetration within the public sector.

Covid-19 Impact:

The pandemic initially hindered the market through supply chain disruptions and the

closure of physical classrooms, which delayed large-scale hardware deployments. However, the long-term impact has been transformative, as the shift toward hybrid learning has brought attention to interactive digital tools. Educational robots were adapted for telepresence and remote programming, allowing students to engage with STEM subjects from home. This period accelerated the adoption of "Robotics-as-a-Service" (RaaS) models, enabling institutions to access advanced technology via subscription-based frameworks to mitigate financial risks.

The non-humanoid segment is expected to be the largest during the forecast period

The non-humanoid segment is expected to account for the largest market share during the forecast period due to the cost-effectiveness, durability, and focused functionality of wheeled robots and modular kits, which are ideal for large-scale classroom implementation. These units are designed to endure daily use by younger students and to teach them coding and mechanics. Furthermore, the simplicity of non-humanoid designs allows for easier integration into existing curricula without the high maintenance and complexity often associated with more advanced bipedal platforms.

The informal education segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the informal education segment is predicted to witness the highest growth rate. The rising popularity of extracurricular coding clubs, summer camps, and home-based learning environments fuels this rapid expansion. Parents are increasingly seeking supplementary educational tools that combine entertainment with skill-building, leading to a surge in demand for consumer-grade robotic kits. Additionally, the proliferation of competition-based platforms, such as FIRST Robotics and VEX competitions, encourages students to engage with robotics outside traditional school hours.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share. This leading position is supported by the early adoption of EdTech solutions and significant investments from both the private and public sectors into STEM research. The presence of major industry players and a well-established network of research universities further bolster the region's market dominance. Additionally, teachers in North America are very skilled with technology, and there is a strong focus on hands-on learning, which helps schools lead in using robots and keeps the number

of installations high in both K-12 and higher education.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR. Rapid urbanization, coupled with government-led initiatives to digitize education in countries like China, India, and South Korea, is driving this explosive growth. Additionally, the presence of a robust manufacturing base in the region has led to the production of more affordable educational robots, making them accessible to a broader demographic. Moreover, a cultural emphasis on academic excellence and competitive skill acquisition encourages high adoption rates in both formal schools and private tutoring centers, positioning Asia Pacific as the most dynamic growth hub globally.

Key players in the market

Some of the key players in Educational Robot Market include The LEGO Group, SoftBank Robotics Corp., UBTECH Robotics Inc., Makeblock Co., Ltd., Sphero, Inc., Wonder Workshop, Inc., Innovation First International LLC, ROBOTIS Co., Ltd., PAL Robotics, Modular Robotics, Dobot, Thames & Kosmos LLC, Robolink Inc., Aisoy Robotics, WowWee Group Ltd., and RobotLAB Inc.

Key Developments:

In January 2026, LEGO Education announced the retirement of the SPIKE portfolio, including SPIKE Essential and SPIKE Prime, while confirming app support until June 2031 for continued classroom use.

In October 2025, Sphero introduced Blueprint Snap, a new entry level engineering kit for grades 3-5, expanding its STEM learning ecosystem.

In August 2025, Robolink partnered with Texas Instruments to allow programming of CoDrone EDU directly from TI graphing calculators, enhancing STEM pathways.

In June 2024, Makeblock launched the mBot2 Rover Emo Robot, an all in one educational kit designed to boost coding and robotics learning.

Types Covered:

Humanoid Robots

Non-Humanoid Robots

Components Covered:

Hardware

Software

Services

Applications Covered:

STEM Education

Language Learning

Special Needs Education

Vocational & Technical Training

Early Childhood Development

End Users Covered:

Formal Education

Informal Education

Corporate & Vocational Centers

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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