

Educational Robot Market by Type (Humanoid Robots, Collaborative Industrial Robots), Component (Sensors, End Effectors, Actuators, Controllers), Education Level (Higher Education, Special Education) - Global Forecast to 2027

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Abstracts

The global educational robot market size is expected to grow from USD 1.4 billion in 2022 to USD 3.2 billion by 2027, at a CAGR of 17.3% during the forecasted period. Collaborative robots are becoming more affordable and are easier to program, especially for novice users. Universities are studying how to utilize the potential of collaborative robots across several different industries by uncovering new uses and applications, improving existing applications, enhancing robot efficiency, and studying robots' effects on health and occupational safety in the workplace. For instance, the US, universities such as Johns Hopkins, The University of Maryland, Virginia Tech, Marshall University, and others have dedicated collaborative robot education centers that expose students to collaborative robots and offer robotics research opportunities.

'Software is the fastest growing segment of educational robot market during the forecast period'

New software solutions are being developed for use in industrial and service robots. Industrial robots require preventive maintenance because multiple robots are functioning at the same time. 5G connectivity is now also being tested for networking industrial robots. For service robots, AI plays a vital role in advancing humanoid robots for functions such as movement, speech recognition and object identification. Hence, the market for software components is expected to grow at a faster rate during the forecast period.

“Special education segment is the fastest growing segment of educational robot market by 2027”

The educational robot market for special education is expected to grow at the highest CAGR between 2022 and 2027. Humanoid robots hold a niche but dedicated market for catering to children with special needs. Collaborative robot technology is also being explored for assisting differently abled people. In some cases, collaborative robots are being used as assistive arms for differently abled people. Their inherently safe design allows them to be used alongside humans. Their penetration is currently limited. Kinova Robots (Canada) is one of the very few companies that has developed assistive robots using collaborative robot technology.

“Europe is the second fastest growing market for educational robot during the forecast period”

Unlike many countries in Europe, universities in the UK have an English-dominant curriculum, which makes it an attractive destination for foreign students looking to get a degree in robotics. Educational institutions in the UK also collaborate with other educational centers worldwide to strengthen educational partnerships with other countries. This enables the collaboration of students from different universities in robotics projects as well as the sharing of new developments across universities in the field of robotics. Also, the education sector in the UK has already shifted to a digital learning environment, which is facilitating robotics education in schools. Apart from Germany, Italy is the only country in Europe that houses robotics companies, such as Comau and CMA Robotics. These instances are the few driving factors enabling the growth of educational robot market in Europe.

Breakdown of the profiles of primary participants:

By Company Type: Tier 1 -40%, Tier 2 -30%, and Tier 3 -30%

By Designation: C-level Executives -40%, Directors-40%, and Others -20%

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

The educational robot market is dominated by a few globally established players such as ABB Ltd. (Switzerland), FANUC (Japan), YASKAWA Electric (Japan), KUKA

(Germany), Universal Robots (Denmark), SoftBank Robotics Group (Japan), Hanson Robotics (China), ROBOTIS (South Korea), Robolink (US), Probotics America (US), ROBOTERRA (US), Hyulim Robot (South Korea), Techman Robot (Taiwan), DJI (China), Seiko Epson (Japan), PAL Robotics (Spain), UBTECH Robotics (China), Pitsco (US), Sanbot Innovation (China), Wonder Workshop (US), and Aisoy Robotics (Spain).

Research Coverage

The report segments the educational robot market and forecasts its size, by value and volume, based on region (Asia Pacific, Europe, North America, and RoW), component (hardware, software), education level (elementary and high school education, higher education, special education), and type (service robot, industrial robot).

The report also provides a comprehensive review of market drivers, restraints, opportunities, and challenges in the educational robot market. The report also covers qualitative aspects in addition to the quantitative aspects of these markets.

Key Benefits of Buying the Report:

The report will help the leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall market and the sub-segments. This report will help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the educational robot market and provides them information on key market drivers, restraints, challenges, and opportunities.

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