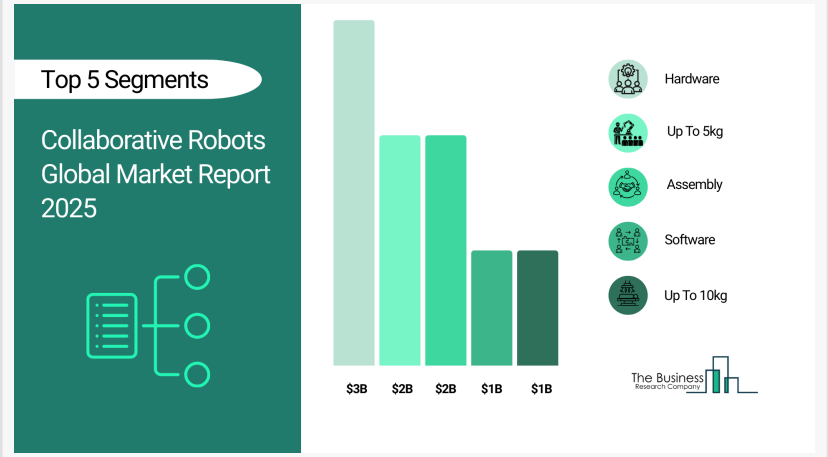
Collaborative Robots Market In 2029

The Business Research Company's Collaborative Robots Global Market Report 2025 – Market Size, Trends, And Global Forecast 2025-2034



Collaborative Robots Global Market Report 2025_Segments.webp

LONDON, GREATER LONDON, UNITED KINGDOM, December 31, 2025 /EINPresswire.com/ -- "Collaborative Robots Market to Surpass $11 billion in 2029. In comparison, the Smart Robots market, which is considered as its parent market, is expected to be approximately $46 billion by 2029, with Collaborative Robots to represent around 24% of the parent market. Within the broader Machinery industry, which is expected to be $5,141 billion by 2029, the Collaborative Robots market is estimated to account for nearly 0.2% of the total market value.

> The Business Research Company's Latest Report Explores Market Driver, Trends, Regional Insights - Market Sizing & Forecasts Through 2034"
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Which Will Be the Biggest Region in the Collaborative Robots Market in 2029

Asia Pacific will be the largest region in the collaborative robots market in 2029, valued at $4,783 million. The market is expected to grow from $1,389 million in 2024 at a compound annual growth rate (CAGR) of 28%. The exponential growth can be attributed to the rising demand for precision and quality control and increasing adoption of Industry 4.0.

Which Will Be The Largest Country In The Global Collaborative Robots Market In 2029?

China will be the largest country in the collaborative robots market in 2029, valued at $2,732 million. The market is expected to grow from $790 million in 2024 at a compound annual growth rate (CAGR) of 28%. The exponential growth can be attributed to the rising demand for precision and quality control and the rising automotive industry.

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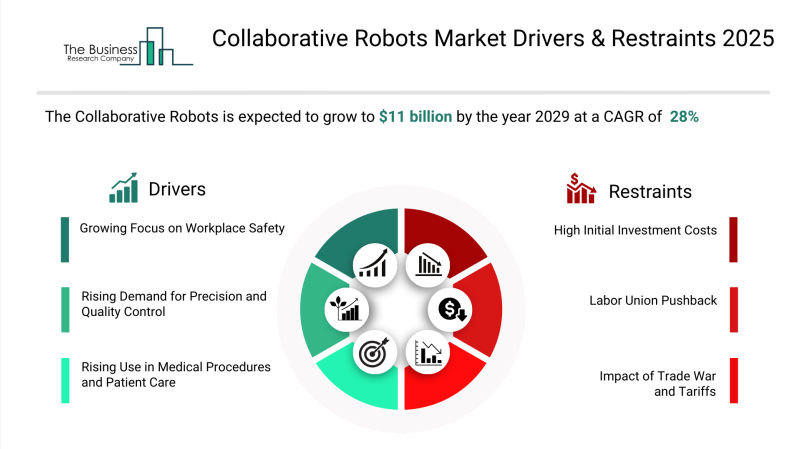
What will be Largest Segment in the Collaborative Robots Market in 2029? The collaborative robots market is segmented by component into hardware and software. The hardware market will be the largest segment of the collaborative robots market segmented by component, accounting for 71% or $7,848 million of the total in 2029. The hardware market will be supported by increasing investments in industrial automation, rising demand for robotic arms and sensors with precision control, widespread integration of grippers and vision systems, growing deployment in high-volume assembly lines, advancements in compact robot designs for limited workspaces and demand for durable, low-maintenance mechanical components.



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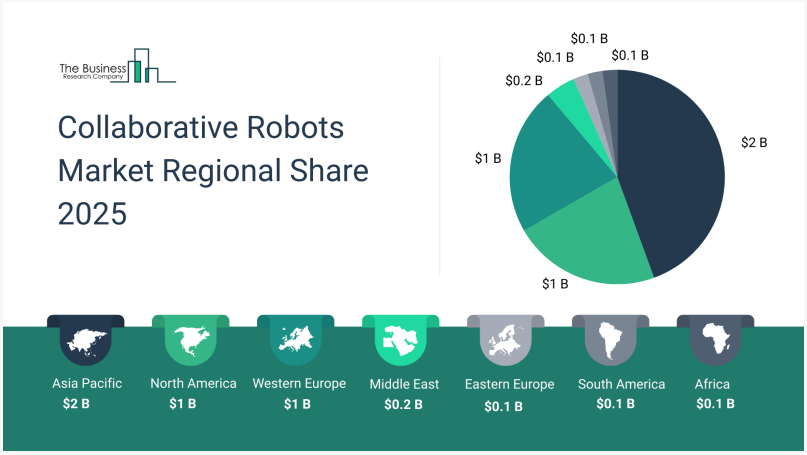

Collaborative Robots Global Market Report 2025_Regions.webp

The collaborative robots market is segmented by payload capacity into up to 5kg, up to 10kg and Above 10kg. The up to 5kg market will be the largest segment of the collaborative robots market segmented by payload capacity, accounting for 48% or $5,263 million of the total in 2029. The up to 5kg market will be supported by high adoption in lightweight assembly and electronics manufacturing, growing demand in educational and research institutions, rising use in compact workspaces with limited load requirements, cost-effectiveness for SMEs, increasing use in tasks such as inspection and testing and growing preference for minimal disruption in existing workflows.

The collaborative robots market is segmented by application into assembly, pick and place, handling, packaging, quality testing, gluing and welding and other applications. The assembly market will be the largest segment of the collaborative robots market segmented by application, accounting for 38% or $4,229 million of the total in 2029. The assembly market will be supported by the precision and consistency in repetitive tasks, flexibility and ease of deployment, enhanced human-robot collaboration, cost-effectiveness for SMEs and integration with industry 4.0 technologies.

The collaborative robots market is segmented by vertical into automotive, chemicals and

pharmaceutical, electronics, food and beverage, metal, new energy, plastic and polymers, semiconductor, logistics and other verticals. The electronics market will be the largest segment of the collaborative robots market segmented by vertical, accounting for 18% or $1,958 million of the total in 2029. The electronics market will be supported by the need for precision in assembling miniature components, increasing use in quality testing and inspection, demand for high-speed soldering and placement, support in PCB handling, growing production of consumer electronics, reduced damage during handling of delicate items and deployment in semiconductor wafer transfer.

What is the expected CAGR for the Collaborative Robots Market leading up to 2029?
The expected CAGR for the collaborative robots market leading up to 2029 is 28%.

What Will Be The Growth Driving Factors In The Global Collaborative Robots Market In The Forecast Period?
The rapid growth of the global collaborative robots market leading up to 2029 will be driven by the following key factors that are expected to reshape industrial operations and production processes worldwide.

Growing Focus On Workplace Safety – The growing focus on workplace safety will become a key driver of growth in the collaborative robots market by 2029. Many industries face challenges involving physically demanding, repetitive, or hazardous tasks such as heavy lifting, welding, or handling dangerous materials. Collaborative robots effectively assume these high-risk activities, significantly enhancing workplace safety and reducing injury rates. Equipped with advanced sensors and safety mechanisms, cobots can operate alongside human workers without requiring physical barriers. This facilitates a safer, more efficient collaborative environment by minimizing accident risks while maintaining worker protection. The deployment of cobots signals a strong organizational commitment to employee safety and well-being, fostering a culture that values innovation and continuous improvement, thereby encouraging broader acceptance and sustainable integration of automation technologies. As a result, the growing focus on workplace safety is anticipated to contributing to a 2.0% annual growth in the market.

Rising Demand For Precision And Quality Control - The rising demand for precision and quality control will emerge as a major factor driving the expansion of the market by 2029. As industry regulations become more stringent, cobots help companies maintain compliance while improving customer satisfaction and strengthening brand reputation through superior product quality. Consequently, the rising demand for precision and quality control is projected to contributing to a 1.5% annual growth in the market.

Rising Use In Medical Procedures And Patient Care - The rising use in medical procedures and patient care will serve as a key growth catalyst for the market by 2029. As the volume and complexity of medical procedures and patient care increase, healthcare systems are turning to collaborative robots to enhance efficiency, accuracy and scalability. This automation not only streamlines operations but also enables faster, safer and more frequent treatment interventions

ultimately driving a significant rise in pharmaceutical consumption across both clinical and home care settings. Amid global healthcare labor shortages, these robots alleviate workforce pressures by ensuring consistent and efficient task execution, driving increased adoption across medical facilities. Therefore, this rising use in medical procedures and patient care is projected to supporting to a 1.0% annual growth in the market.

Rise In E-Commerce And Logistics - The rise in e-commerce and logistics will become a significant driver contributing to the growth of the market by 2029. The rapid expansion of e-commerce has significantly increased the volume of orders processed daily by warehouses and distribution centers. Collaborative robots streamline operations by automating key tasks such as picking, packing, sorting and palletizing, driving greater speed and efficiency. Their adaptability allows for quick reprogramming to manage diverse product types and evolving workflows typical of dynamic logistics environments. Addressing industry challenges like labor shortages and rising costs, cobots augment human labor to enhance throughput and reduce operational expenses. Additionally, they improve order accuracy, minimizing errors and returns, which strengthens supply chain reliability. Their ability to operate continuously supports 24/7 logistics, meeting rising consumer demands for faster delivery and higher service levels. Consequently, the rise in e-commerce and logistics is projected to contributing to a 0.5% annual growth in the market.

Access the detailed Collaborative Robots Market report here:
https://www.thebusinessresearchcompany.com/report/collaborative-robots-global-market-report

What Are The Key Growth Opportunities In The Collaborative Robots Market in 2029?
The most significant growth opportunities are anticipated in the collaborative robots hardware solutions market, the 5kg-class collaborative robots market, the assembly-focused collaborative robots market, and the electronics-integrated collaborative robots market. Collectively, these segments are projected to contribute over $14 billion in market value by 2029, driven by advancements in robot dexterity and precision, increasing demand for flexible automation in small and medium-sized manufacturing environments, and the rapid integration of cobots into high-mix, low-volume production lines. This surge reflects the accelerating adoption of collaborative robotic technologies that enable safer human-robot interaction, improved production efficiency, and easy deployment across assembly, inspection, and electronics manufacturing workflows—fueling transformative growth within the broader collaborative robotics industry.

The collaborative robots hardware solutions market is projected to grow by $ 5,541 million, the 5kg-class collaborative robots market by $3,701 million, the assembly-focused collaborative robots market by $ 3,031 million, and the electronics-integrated collaborative robots market by $1,371 million over the next five years from 2024 to 2029.

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