

# **Construction Robot Market by Type (Traditional, Robotic Arm, and Exoskeleton), Automation, Function, Application (Public Infrastructure, Commercial and Residential Buildings, Nuclear Dismantling and Demolition), and Geography - Global Forecast to 2023**

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## **Abstracts**

Enhanced productivity, quality, and safety due to the implementation of construction robots acts as a major driving factor for the construction robot market”

The construction robot market is expected to reach USD 166.4 million by 2023 from USD 76.6 million in 2018, at a CAGR of 16.8% between 2018 and 2023. This growth can be attributed to enhanced productivity, quality, and safety due to the implementation of construction robots and growing urbanization worldwide. However, high equipment cost restricts the growth of the construction robot market.

“Traditional robot held a larger share of the construction robot market in 2017”

Traditional robots accounted for the largest share of the overall construction robot market based on type in 2017. The technologically advanced traditional robots are being used as a replacement for the old construction equipment/machines in most of the construction functions. Also, the traditional robots are serving the similar function as served by heavy construction equipment in an innovative manner, which is leading to the large adoption of these robots by the construction industry.

“The construction robot market for concrete structural erection is expected to grow at a higher CAGR during the forecast period”

The market for the concrete structural erection function is expected to grow at the highest CAGR during the forecast period. The robots designed for the concrete structural erection construct prefabricated concrete components or units that can directly be assembled on site to form an entire building structure. Such automated building of concrete structure with the help of robots has reduced the complexity of the construction operations and is attracting most of the construction firms to adopt robots for this function.

“Public infrastructure held the largest share, in terms of value, of the construction robot market in 2017”

Public infrastructure accounted for the largest share of the construction robot market based on application in 2017. The growth of the market for this application can be attributed to the increasing urbanization worldwide and growing partnerships among construction firms for developing sustainable infrastructure solutions with an aim to improve people’s quality of life.

“Europe was the largest shareholder in 2017, whereas APAC would be the fastest-growing region in the construction robot market during the forecast period”

Europe accounted for a major share of the overall construction robot market in 2017. The largest size of the European construction robot market is attributed to the presence of large facilities of various companies for the development and production of the construction and demolition robots, increasing number of government regulations, and growing need for the residential and non-residential construction projects. The construction robot market in APAC is expected to grow at the highest CAGR between 2018 and 2023. APAC has abundant natural reserves distributed among various countries. The mining and construction is among the top industries in Australia, China, India, Malaysia, and Vietnam. With the growing urbanization and wide availability of natural resources across the region, the mining and construction companies have started using automated equipment, operating software, and communications system to connect and operate on site.

The breakup of primaries conducted during the study is depicted below:

By Company Type: Tier 1 = 55%, Tier 2 = 20%, and Tier 3 = 25%

By Designation: C-Level Executives = 75% and Directors = 25%

By Region: Americas = 10%, Europe = 20%, APAC = 40%, and RoW = 30%

Some key players in the construction robot market include Brokk (Sweden), Husqvarna (Sweden), Ekso Bionics (US), Komatsu (Japan), Fujita (Japan), Construction Robotics (US), Fastbrick Robotics (Australia), Autonomous Solutions (US), Conjet (Sweden), TopTec Spezialmaschinen (Germany), Apis Cor (Russia), nLink (Norway), Yingchuang Building Technique Co. (WinSun) (China), Advanced Construction Robotics (US), MX3D (Netherlands), CyBe Construction (Netherlands), CYBERDYNE (Japan), Giant Hydraulic Tech (China), Alpine Sales and Rental (US), and Beijing Borui Intelligent Control Technology (China).

Factors such as the adoption of 3D printing in the construction industry and rise in automation at construction sites are expected to generate opportunities for the players in the construction robot market.

#### Research Coverage:

This report includes the market statistics pertaining to the construction robot type, automation, function, application, and geography, along with their respective market size.

Major drivers, restraints, opportunities, and challenges pertaining to the construction robot market have been detailed in the report.

Opportunities in the market have been defined for stakeholders, along with the details of the competitive landscape for the market leaders.

Strategic profiling of the key players in the construction robot market has been done and players' ranking has been provided, and core competencies have been comprehensively analyzed.

#### Reasons to Buy the Report

The report would help leaders/new entrants in the construction robot market in the following ways:

1. This report segments the construction robot market comprehensively and provides

the closest market size estimations for segments across different regions.

2. The report would help stakeholders understand the pulse of the market and provide them with the information on key drivers, restraints, challenges, and opportunities for the market growth.

3. This report would help stakeholders understand their competitors better and gain insights to improve their position in the business. The competitive landscape section includes the competitor ecosystem, product launches, acquisitions, expansions, partnerships, and collaborations.

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## About

According to the new market research report on the "Construction Robot Market by Type (Traditional, Robotic Arm, and Exoskeleton), Automation, Function, Application (Public Infrastructure, Commercial and Residential Buildings, Nuclear Dismantling and Demolition), and Geography - Global Forecast to 2023", the construction robot market is valued at USD 76.6 Million in 2018 and is expected to reach USD 166.4 Million by 2023, at a CAGR of 16.8% between 2018 and 2023. The market is mainly driven by the factors such as enhanced productivity, quality, and safety due to the implementation of construction robots and growing urbanization worldwide.

### Key players in the market are:

Brokk (Sweden),

Husqvarna (Sweden),

Ekso Bionics (US),

Komatsu (Japan),

Fujita (Japan),

Construction Robotics (US),

Fastbrick Robotics (Australia),

Autonomous Solutions (US),

Conjet (Sweden),

TopTec Spezialmaschinen (Germany),

Apis Cor (Russia),

nLink (Norway),

Yingchuang Building Technique Co. (WinSun) (China),

Advanced Construction Robotics (US),  
MX3D (Netherlands),  
CyBe Construction (Netherlands),  
CYBERDYNE (Japan),  
Giant Hydraulic Tech (China),  
Alpine Sales and Rental (US), and  
Beijing Borui Intelligent Control Technology (China).

The report profiles the most promising players in the market. The competitive landscape of the market is highly dynamic because of the presence of a significant number of big and small players operating in it.

### **Construction robot market for exoskeleton to grow at highest CAGR during forecast period**

The market for exoskeleton is expected to grow at the highest CAGR during the forecast period. The high growth of this segment can be attributed to the fact that most of the construction companies are expected to adopt exoskeletons for their workers to address the issue of labor shortage. The deployment of exoskeletons is likely to help workers to perform heavy work easily; hence, the use of exoskeleton is expected to improve work environment at construction sites.

### **Semi-autonomous construction robots held larger share of overall market in 2017**

The semi-autonomous construction robots held a larger share of ~67.1% of the overall construction robot market in 2017. The need for broader and more efficient infrastructure, and improved infrastructure monitoring for predictive and corrective maintenance are the factors driving the market for the semi-autonomous construction robots.

### **Europe is major consumer of construction robots**

Europe accounted for a major share of the overall construction robot market in 2017. The largest size of the European construction robot market is attributed to the large facilities of various companies for the development and production of the construction and demolition robots, increasing number of government regulations, and growing need for the residential and non-residential construction projects. Also, the European construction market is expected to grow tremendously in the coming years. The high rate of industrialization has increased the extent of construction activities in the region, leading to increasing demand for advanced construction equipment, such as robots.



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