

Robotics: Technologies and Global Markets

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Abstracts

Report Scope:

Robotics: Technologies and Global Markets (ENG001G) provides both a review of recent key developments in robotics and a forecast that examines the industry from the perspective of robot makers and their traditional and prospective end users.

Forecasts have been generated by region, by type of robot, by robot user, by robot-performed task, and by type of robotic product and market region.

Five types of robots are discussed and forecast in this report: industrial robots, professional service robots, military robots, domestic service robots, and security robots.

Seventeen types of robot end users are covered: aerospace manufacturing, agricultural, automotive manufacturing, building maintenance, chemical and fuel processing, construction, consumer products manufacturing, education and research, electrical and electronics manufacturing, food processing, government (defense), government (non-defense), healthcare, households, metals, pharmaceutical manufacturing, and textile and clothing manufacturing.

Nineteen robot-performed tasks are examined: assembly; assisted transport; building security; construction and demolition; couriers and guides; dispensing; entertainment; floor maintenance; exterior maintenance; hazardous materials disposal; inspection and sample collection; laboratory bench assistance; material handling; painting, coating and gluing; palletizing and packaging; part cutting and forming; surgery; surveillance; and welding and soldering.

Four robotic products groups are reviewed: whole robots, robot parts, robot software,

and robot safety materials.

All market values are provided in millions of U.S. dollars, and all are calculated as nominal value; 2020 is considered as the base year, and 2021 as the projected year, and the values are forecast from 2022 to 2026. The CAGR (Compound Annual Growth Rate) in percentage terms represents the cumulative five-year growth.

Report Includes:

34 data tables and 36 additional tables

An updated review of the global markets for robotics technologies

Analyses of the global market trends, with data from 2020, estimates for 2021, and projections of compound annual growth rates (CAGRs) through 2026

Evaluation and forecast the global robotics market size, and corresponding market share analysis by type of robot, robot-performed task, product group, technology, end-use industry, and geographic region

In-depth information (facts and figures) concerning market drivers, restraints and other forces affecting the progress of this market

Assessment of major market drivers and opportunities estimating current and future demand for robotic products, and key enabling technologies, and COVID-19 impact on the robotics industry

Discussion of key technology developments, latest trends, and other influential factors such as research-and-development capability, installed base, branding, and ecosystem influence and partnerships

Information on upcoming market opportunities and areas of focus to forecast this market into various segments and sub-segments

Insight into recent industry structure, current competitive scenario, R&D activities, and regulatory and legislative issues currently focused on robotics industry ecosystem

Review of robotics-related patent activity, recent re-issued U.S. patents, and a

look into the technologically significant robotic patents

Descriptive company profiles of the leading global manufacturers of robotic parts and technologies. Major players in the market, include ABB Group, FANUC Corp., Kawasaki Heavy Industries Ltd., KUKA AG, Mitsubishi Electric Corp., Rockwell Automation Inc., Robert Bosch GmbH, Siemens AG, and Yaskawa Electric Corp.

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AMAZON, INC.

AURIS HEALTH, INC.

BAE SYSTEMS PLC

BARRETT TECHNOLOGY LLC

BLACK-I ROBOTICS INC.

BOSCH REXROTH CORP.

BOSTON DYNAMICS, INC. (HYUNDAI MOTOR GROUP)

CLEARPATH ROBOTICS INC.

COMAU S.P.A.

DEERE & CO.

DENSO ROBOTICS

DIVERSEY HOLDINGS LTD.

DJI

ENERGID TECHNOLOGIES CORP.

FANUC CORP.

GENERAL DYNAMICS MISSION SYSTEMS, INC.

GENESIS SYSTEMS (IPG PHOTONICS CORP.)

HARVEST AUTOMATION INC.

HITACHI LTD.

HONDA MOTOR CO., LTD.

INTUITIVE SURGICAL INC.

KAIROS AUTONOMI

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About

Within the next six years, the global marketplace for robotics will almost triple, accelerating from \$98bn in 2018 to surpass \$275bn by 2025, according to GlobalData.

The company's latest Technology Thematic Research report, 'Robotics', reveals that the robotics industry will grow at a compound annual growth rate (CAGR) of 16% between 2018 and 2025, with annual growth peaking at 17% in 2022.

The next five years will see rapid growth in cloud-based robot services for armies of installed robots and for robots hired on an as-needed basis, especially by small and medium-sized enterprises, triggering new demand drivers. Despite concern over the future of human jobs and identity, momentum is unlikely to stall for at least the next five years as organizations globally seek boosts to sagging productivity in manufacturing and services across both the public and private sectors.

According to Gary Barnett, Chief Analyst for Technology Thematic Research at GlobalData,

"Growth is being driven by robots becoming progressively cheaper, smarter, more flexible and easier to train. That in turn is making it easier for robots to infiltrate new industries and drive new use cases. Robot proliferation is only just beginning. Say's law – which states that supply creates its own demand – is revving up ever faster. Industrial robot densities across the world will grow as factory automation accelerates, especially in China. Meanwhile, improvements in technology and the redefinition of robots as connected artificial intelligence agents will increase the proliferation of robots in the factory, in the office, on the roads, in the skies, and at home."

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