

# **Global Force Sensor Market Size study & Forecast, by Operation (Analog and Digital), by Force Type (Compression & Tension, Compression, and Tension), by Technology (Strain Gauge, Load Cell, Force Sensitive Resistors (FSRs), and Others), by End User (Automotive, Locomotive, Manufacturing, Mining, Aerospace & Defense, Construction, Healthcare, and Others) and Regional Analysis, 2023-2030**

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## **Abstracts**

Global Force Sensor Market is valued at approximately USD 2.27 billion in 2022 and is anticipated to grow with a healthy growth rate of more than 5.30% over the forecast period 2023-2030. A force sensor, is a device that converts mechanical force or load into an electrical signal, enabling measurement and analysis of applied forces. It finds applications in various industries for measuring forces, monitoring weight, and providing feedback in force-sensitive applications. The Force Sensor Market is expanding because of factors such as increasing industrial automation and rising numbers of smart homes. Moreover, the increasing adoption of industrial automation drives the demand for force sensors, as they play a crucial role in various automated processes such as robotics, manufacturing, and quality control, positively impacting the force sensor market.

According to Statista in 2020, the global industrial automation market was valued at approximately USD175 billion. By 2025, the global industrial automation market is expected to reach a market size of approximately USD 265 billion. The increasing number of smart homes drives the demand for force sensors, as they are integral components for various applications in smart home automation and security systems,

resulting in a positive impact on the force sensor market. According to Statista in 2023, the global number of households in the smart home market is estimated to reach 311.9 million households in between year 2023 and 2027. By the year 2027, the total number of households in smart home market is anticipated to reach up to approximately 672.57 million. In addition, the rising production of connected vehicles and increasing demand in consumer electronics would create a lucrative growth opportunity. However, the high cost of the force sensor and the complexity of integration stifles market growth throughout the forecast period of 2023-2030.

The key regions considered for the Global Force Sensor Market study includes Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. North America dominated the market during the forecast period owing to the, increasing adoption of digitization in sectors such as healthcare and defense, driven by the growing demand to improve service quality and the rise in military and defense spending, which is a significant factor contributing to market growth. Asia Pacific is the fastest growing region during the forecast period, owing to factors such as the rising adoption of consumer electronics which includes smartphones, tablets, and a rising demand for smart wearables, indicating a notable market growth in this region.

Major market player included in this report are:

Kataoka Electric Co., Ltd.

Synaptics Inc.

Interlink Electronics Inc.

Uneo Inc.

Futek Advanced Sensor Technology Inc.

Sensel Inc.

Tekscan Inc.

Kavlico Corporation

Flintec Group AB

Shenzhen New Degree Technology Co. Ltd

Recent Developments in the Market:

In March 2022 - Apple filed recent patents suggesting their intention to introduce Force Touch technology. According to the brand's most recent patent applications, they were planning to incorporate new force sensors in future iterations of the iPhone, iPad, MacBook, and Apple Watch. The development was unveiled by Patently Apple, a web publication.

In August 2022, The University of Cambridge was actively involved in developing

groundbreaking microfluidic force sensors. These smart sensors were designed with the aim of improving the longevity of implants and mitigating the necessity for complicated revision surgeries in patients. Their primary function was to aid in stabilizing soft tissue during hip replacements and ensuring precise positioning of orthopedic implants.

Global Force Sensor Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

Report Coverage - Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered – Operation, Force Type, Technology, End-User, Region

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope\*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Operation:

Analog

Digital

By Force Type:

Compression & Tension

Compression

Tension

By Technology:

Strain Gauge

Load Cell  
Force Sensitive Resistors (FSRs)  
Others

By End-User:  
Automotive  
Locomotive  
Manufacturing  
Mining  
Aerospace & Defense  
Construction  
Healthcare  
Others

By Region:

North America  
U.S.  
Canada

Europe  
UK  
Germany  
France  
Spain  
Italy  
ROE

Asia Pacific  
China  
India  
Japan  
Australia  
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Rest of Middle East & Africa

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