

Global Human Machine Interface Market Size Study & Forecast, by Product (Hardware, Software), by Configuration (Embedded HMI, Standalone HMI), by Industry (Process Industry, Discrete Industry), and Regional Analysis, 2023-2030

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Abstracts

Global Human Machine Interface Market is valued at approximately USD 4.9 billion in 2022 and is anticipated to grow with a healthy growth rate of more than 8.1% over the forecast period 2023-2030. Human Machine Interface (HMI) is the technology or system that enables communication and interaction between humans and machines. It acts as a link between the user and the device, allowing users to regulate and maintain various functions on a device or system. The HMI's main objective is to offer a simple, user-friendly interface that allows people to communicate with complicated machinery or systems. Users enter instructions, get responses, and keep tabs on the computer or system's performance. The growing focus on real-time data analysis and predictive maintenance, the rising shift toward Industry 4.0, and the increasing adoption of IoT, coupled with the strategic initiatives by governments to promote the adoption of operational technologies are the key factors that are fueling the market demand across the world.

In addition, the surging adoption of industrial automation is playing a vital role in bolstering market growth at a considerable rate. The rising trend of industrial automation across various sectors, including manufacturing, energy, and automotive, is driving the demand for advanced HMIs. HMIs play a crucial role in controlling and monitoring automated processes, improving operational efficiency, and reducing human errors. According to Statista, the industrial automation market was valued at USD 175 billion globally in 2020 and is expected to increase to USD 265 billion by 2025. Consequentially, these aforementioned factors are directly associated with the demand

for the human machine interface to interact with complex machines or systems in a simplified manner, which, in turn, accelerates the market growth. Moreover, the rising adoption of emerging technologies such as IoT and cloud computing in industrial environments as well as increasing demand for safety compliance automation solutions, present various lucrative opportunities over the forecast years. However, the lack of standardization in industrial communication protocols and interfaces and the increasing security risks associated with cloud-HMI platforms are challenging the market growth throughout the forecast period of 2023-2030.

The key regions considered for the Global Human Machine Interface Market study include Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. North America dominated the market in 2022 owing to the rising trend of industrial automation across various sectors, including manufacturing, energy, and automotive, which is driving the demand for advanced HMIs. Additionally, growing emphasis on intuitive and user-friendly interfaces, coupled with technological advancements such as artificial intelligence, Internet of Things (IoT), virtual reality, and augmented reality are further enhancing the capabilities of HMIs. Whereas, Asia Pacific is expected to grow at the highest CAGR over the forecast years. The growing focus on safety and ergonomics, surging demand for automotive HMIs, and increasing industrial automation are significantly impelling the market demand across the region.

Major market players included in this report are:

Rockwell Automation Inc. (US)

ABB (Switzerland)

Siemens AG (Germany)

Schneider Electric SE (France)

Honeywell International Inc. (US)

Advantech Co., Ltd. (Taiwan)

Emerson Electric Co. (US)

General Electric Co. (US)

Mitsubishi Electric Corporation (Japan)

Yokogawa Electric Corporation (Japan)

Recent Developments in the Market:

In May 2021, Mitsubishi Electric announced the introduction of two new Graphic Operation Terminals (GOTs). These GOTs are the newest additions to the company's GOT2000 Series Wide Model lineup and are designed to help customers who require a wider screen to view more data about factory, process, utility, and other automation applications.

In October 2020, The Progea Group, a top supplier of HMI, SCADA, and PLC systems, was acquired by Emerson Electric Co. The objective of this acquisition is to provide additional resources and expertise, as well as the potential to offer clients of Emerson complete hardware and software solutions.

Global Human Machine Interface 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 - Product, Configuration, Industry, 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 Product:

Hardware

Software

By Configuration:

Embedded HMI

Standalone HMI

By Industry:

Process Industry

Discrete Industry

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

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