

**Artificial Intelligence Sensor Market By Type (Pressure, Temperature, Optical, Motion), By Technology (NLP, Machine Learning, Computer Vision), By Application (Automotive, Consumer Electronic, Manufacturing, Aerospace and Defense, Others): Global Opportunity Analysis and Industry Forecast, 2023-2032**

Market Report | 2023-08-01 | 266 pages | Allied Market Research

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**Report description:**

The global artificial intelligence sensor market was valued at \$3.16 billion in 2022, and is projected to reach \$103.35 billion by 2032, registering a CAGR of 41.8% from 2023 to 2032.

An artificial intelligence (AI) sensor is a physical device or software component that collects, measures, or detects data from an environment or a specific system. These sensors can be of different types such as cameras, microphones, temperature sensors, accelerometers, proximity sensors, etc. They serve to collect raw data or signals, which are processed and analyzed by AI algorithms and models to extract meaningful information.

The growth of the global artificial intelligence sensor market is driven by an increase in advancements in sensor technologies, such as improved accuracy, miniaturization, and lower costs. This demand is fueled by the popularity of AI sensors in various devices and systems, ranging from smartphones and wearables to autonomous vehicles and industrial machinery, driving the growth of artificial intelligence sensors. Furthermore, the growing preference for AI-sensors-enabled wearables, such as watches, and smartphones opens an opportunity for the market. For instance, the Apple Watch series incorporates AI sensors such as heart rate monitors, accelerometers, gyroscopes, and even an ECG app, enabling users to track their fitness, activity levels, and heart health, and receive personalized health insights. However, high installation and maintenance costs hinder the growth of the market. The initial investment required for deploying AI sensor systems can be substantial, including the costs of purchasing and integrating the sensors into existing infrastructure. In addition, ongoing maintenance and calibration expenses can add to the overall cost burden, limiting the adoption of AI sensors, particularly for small-scale businesses or organizations with budget constraints.

The main purpose of artificial intelligence (AI) sensors is to collect and process data from the environment or from specific sources

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to enable AI systems to perceive and understand their surroundings. These sensors play a key role in providing input to AI algorithms, enabling machines to analyze and interpret sensory information such as visual, auditory, tactile, and even biological data. AI sensors collect and interpret real-time data to enable intelligent systems to make informed decisions, adapt to changing conditions, interact more effectively with their environment, and ultimately improve holistic functionalities and enable a wide range of applications in various fields.

The artificial intelligence sensor market is segmented based on type, technology, application, and region. By type, the market is divided into pressure, temperature, optical, and motion sensor. By technology, the market is segmented into NLP, machine learning, and computer vision. By application, the market is classified into automotive, consumer electronic, manufacturing, aerospace and defense, and others.

By region, it is analyzed across North America (the U.S., Canada, and Mexico), Europe (UK, Germany, France, and the rest of Europe), Asia-Pacific (China, Japan, India, South Korea, and the rest of Asia-Pacific), and LAMEA (Latin America, the Middle East, and Africa).

The key players profiled in the artificial intelligence sensor market, such as Robert Bosch GmbH, Teledyne Technologies Incorporated, Sensirion AG, Sensata Technologies, Inc., MEMSIC Semiconductor, Goertek Inc., Hoken Electric Industry, Sony Corporation, TE Connectivity, and STMicroelectronics N.V. are provided in this report. Market players have adopted various strategies such as product launches, and acquisitions, to expand their foothold in the artificial intelligence sensor market.

#### Key Benefits For Stakeholders

- This report provides a quantitative analysis of the market segments, current trends, estimations, and dynamics of the artificial intelligence sensor market analysis from 2022 to 2032 to identify the prevailing artificial intelligence sensor market opportunities.
- The market research is offered along with information related to key drivers, restraints, and opportunities.
- Porter's five forces analysis highlights the potency of buyers and suppliers to enable stakeholders make profit-oriented business decisions and strengthen their supplier-buyer network.
- In-depth analysis of the artificial intelligence sensor market segmentation assists to determine the prevailing market opportunities.
- Major countries in each region are mapped according to their revenue contribution to the global market.
- Market player positioning facilitates benchmarking and provides a clear understanding of the present position of the market players.
- The report includes the analysis of the regional as well as global artificial intelligence sensor market trends, key players, market segments, application areas, and market growth strategies.

Additional benefits you will get with this purchase are:

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Possible Customization with this report (with additional cost and timeline talk to the sales executive to know more)

- Product Life Cycles
- Technology Trend Analysis
- Market share analysis of players by products/segments

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- New Product Development/ Product Matrix of Key Players
- Additional company profiles with specific to client's interest
- Additional country or region analysis- market size and forecast
- Key player details (including location, contact details, supplier/vendor network etc. in excel format)
- Market share analysis of players at global/region/country level

#### Key Market Segments

##### By Type

- Pressure
- Temperature
- Optical
- Motion

##### By Technology

- NLP
- Machine Learning
- Computer Vision

##### By Application

- Automotive
- Consumer Electronic
- Manufacturing
- Aerospace and Defense
- Others

##### By Region

- North America
- U.S.
- Canada
- Mexico
- Europe
- UK
- Germany
- France
- Italy
- Rest of Europe
- Asia-Pacific
- China
- India
- Japan
- South Korea
- Rest of Asia-Pacific
- LAMEA
- Latin America
- Middle East
- Africa
- Key Market Players
- Goertek Inc.
- TE Connectivity Ltd.
- HOKURIKU ELECTRIC INDUSTRY CO., LTD.
- STMicroelectronics N.V.

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- Sensirion AG
- Robert Bosch GmbH
- Sensata Technologies, Inc.
- Sony Corporation
- MEMSIC Semiconductor Co., Ltd.

## **Table of Contents:**

### CHAPTER 1: INTRODUCTION

- 1.1. Report description
- 1.2. Key market segments
- 1.3. Key benefits to the stakeholders
- 1.4. Research Methodology
  - 1.4.1. Primary research
  - 1.4.2. Secondary research
  - 1.4.3. Analyst tools and models

### CHAPTER 2: EXECUTIVE SUMMARY

- 2.1. CXO Perspective

### CHAPTER 3: MARKET OVERVIEW

- 3.1. Market definition and scope
- 3.2. Key findings
  - 3.2.1. Top impacting factors
  - 3.2.2. Top investment pockets
- 3.3. Porter's five forces analysis
  - 3.3.1. Low to high bargaining power of suppliers
  - 3.3.2. Moderate to high threat of new entrants
  - 3.3.3. Moderate threat of substitutes
  - 3.3.4. Low to high intensity of rivalry
  - 3.3.5. Moderate to high bargaining power of buyers
- 3.4. Market dynamics
  - 3.4.1. Drivers
    - 3.4.1.1. Rise in demand for smart consumer devices
    - 3.4.1.2. Growing demand for internet of things (IoT)
    - 3.4.1.3. Increase in adoption of AI technologies
  - 3.4.2. Restraints
    - 3.4.2.1. High installation and maintenance cost
  - 3.4.3. Opportunities
    - 3.4.3.1. The surge in the development of smart cities and infrastructure
    - 3.4.3.2. Growing preference for AI-sensor-enabled wearables

- 3.5. COVID-19 Impact Analysis on the market

### CHAPTER 4: ARTIFICIAL INTELLIGENCE SENSOR MARKET, BY TYPE

- 4.1. Overview
  - 4.1.1. Market size and forecast
- 4.2. Pressure

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- 4.2.1. Key market trends, growth factors and opportunities
  - 4.2.2. Market size and forecast, by region
  - 4.2.3. Market share analysis by country
  - 4.3. Temperature
    - 4.3.1. Key market trends, growth factors and opportunities
    - 4.3.2. Market size and forecast, by region
    - 4.3.3. Market share analysis by country
  - 4.4. Optical
    - 4.4.1. Key market trends, growth factors and opportunities
    - 4.4.2. Market size and forecast, by region
    - 4.4.3. Market share analysis by country
  - 4.5. Motion
    - 4.5.1. Key market trends, growth factors and opportunities
    - 4.5.2. Market size and forecast, by region
    - 4.5.3. Market share analysis by country
- CHAPTER 5: ARTIFICIAL INTELLIGENCE SENSOR MARKET, BY TECHNOLOGY
- 5.1. Overview
    - 5.1.1. Market size and forecast
  - 5.2. NLP
    - 5.2.1. Key market trends, growth factors and opportunities
    - 5.2.2. Market size and forecast, by region
    - 5.2.3. Market share analysis by country
  - 5.3. Machine Learning
    - 5.3.1. Key market trends, growth factors and opportunities
    - 5.3.2. Market size and forecast, by region
    - 5.3.3. Market share analysis by country
  - 5.4. Computer Vision
    - 5.4.1. Key market trends, growth factors and opportunities
    - 5.4.2. Market size and forecast, by region
    - 5.4.3. Market share analysis by country
- CHAPTER 6: ARTIFICIAL INTELLIGENCE SENSOR MARKET, BY APPLICATION
- 6.1. Overview
    - 6.1.1. Market size and forecast
  - 6.2. Automotive
    - 6.2.1. Key market trends, growth factors and opportunities
    - 6.2.2. Market size and forecast, by region
    - 6.2.3. Market share analysis by country
  - 6.3. Consumer Electronic
    - 6.3.1. Key market trends, growth factors and opportunities
    - 6.3.2. Market size and forecast, by region
    - 6.3.3. Market share analysis by country
  - 6.4. Manufacturing
    - 6.4.1. Key market trends, growth factors and opportunities
    - 6.4.2. Market size and forecast, by region
    - 6.4.3. Market share analysis by country
  - 6.5. Aerospace and Defense
    - 6.5.1. Key market trends, growth factors and opportunities

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- 6.5.2. Market size and forecast, by region
- 6.5.3. Market share analysis by country
- 6.6. Others
  - 6.6.1. Key market trends, growth factors and opportunities
  - 6.6.2. Market size and forecast, by region
  - 6.6.3. Market share analysis by country
- CHAPTER 7: ARTIFICIAL INTELLIGENCE SENSOR MARKET, BY REGION
  - 7.1. Overview
    - 7.1.1. Market size and forecast By Region
  - 7.2. North America
    - 7.2.1. Key market trends, growth factors and opportunities
    - 7.2.2. Market size and forecast, by Type
    - 7.2.3. Market size and forecast, by Technology
    - 7.2.4. Market size and forecast, by Application
    - 7.2.5. Market size and forecast, by country
      - 7.2.5.1. U.S.
        - 7.2.5.1.1. Market size and forecast, by Type
        - 7.2.5.1.2. Market size and forecast, by Technology
        - 7.2.5.1.3. Market size and forecast, by Application
      - 7.2.5.2. Canada
        - 7.2.5.2.1. Market size and forecast, by Type
        - 7.2.5.2.2. Market size and forecast, by Technology
        - 7.2.5.2.3. Market size and forecast, by Application
      - 7.2.5.3. Mexico
        - 7.2.5.3.1. Market size and forecast, by Type
        - 7.2.5.3.2. Market size and forecast, by Technology
        - 7.2.5.3.3. Market size and forecast, by Application
  - 7.3. Europe
    - 7.3.1. Key market trends, growth factors and opportunities
    - 7.3.2. Market size and forecast, by Type
    - 7.3.3. Market size and forecast, by Technology
    - 7.3.4. Market size and forecast, by Application
    - 7.3.5. Market size and forecast, by country
      - 7.3.5.1. UK
        - 7.3.5.1.1. Market size and forecast, by Type
        - 7.3.5.1.2. Market size and forecast, by Technology
        - 7.3.5.1.3. Market size and forecast, by Application
      - 7.3.5.2. Germany
        - 7.3.5.2.1. Market size and forecast, by Type
        - 7.3.5.2.2. Market size and forecast, by Technology
        - 7.3.5.2.3. Market size and forecast, by Application
      - 7.3.5.3. France
        - 7.3.5.3.1. Market size and forecast, by Type
        - 7.3.5.3.2. Market size and forecast, by Technology
        - 7.3.5.3.3. Market size and forecast, by Application
      - 7.3.5.4. Italy
        - 7.3.5.4.1. Market size and forecast, by Type

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- 7.3.5.4.2. Market size and forecast, by Technology
- 7.3.5.4.3. Market size and forecast, by Application
- 7.3.5.5. Rest of Europe
  - 7.3.5.5.1. Market size and forecast, by Type
  - 7.3.5.5.2. Market size and forecast, by Technology
  - 7.3.5.5.3. Market size and forecast, by Application
- 7.4. Asia-Pacific
  - 7.4.1. Key market trends, growth factors and opportunities
  - 7.4.2. Market size and forecast, by Type
  - 7.4.3. Market size and forecast, by Technology
  - 7.4.4. Market size and forecast, by Application
  - 7.4.5. Market size and forecast, by country
    - 7.4.5.1. China
      - 7.4.5.1.1. Market size and forecast, by Type
      - 7.4.5.1.2. Market size and forecast, by Technology
      - 7.4.5.1.3. Market size and forecast, by Application
    - 7.4.5.2. India
      - 7.4.5.2.1. Market size and forecast, by Type
      - 7.4.5.2.2. Market size and forecast, by Technology
      - 7.4.5.2.3. Market size and forecast, by Application
    - 7.4.5.3. Japan
      - 7.4.5.3.1. Market size and forecast, by Type
      - 7.4.5.3.2. Market size and forecast, by Technology
      - 7.4.5.3.3. Market size and forecast, by Application
    - 7.4.5.4. South Korea
      - 7.4.5.4.1. Market size and forecast, by Type
      - 7.4.5.4.2. Market size and forecast, by Technology
      - 7.4.5.4.3. Market size and forecast, by Application
    - 7.4.5.5. Rest of Asia-Pacific
      - 7.4.5.5.1. Market size and forecast, by Type
      - 7.4.5.5.2. Market size and forecast, by Technology
      - 7.4.5.5.3. Market size and forecast, by Application
- 7.5. LAMEA
  - 7.5.1. Key market trends, growth factors and opportunities
  - 7.5.2. Market size and forecast, by Type
  - 7.5.3. Market size and forecast, by Technology
  - 7.5.4. Market size and forecast, by Application
  - 7.5.5. Market size and forecast, by country
    - 7.5.5.1. Latin America
      - 7.5.5.1.1. Market size and forecast, by Type
      - 7.5.5.1.2. Market size and forecast, by Technology
      - 7.5.5.1.3. Market size and forecast, by Application
    - 7.5.5.2. Middle East
      - 7.5.5.2.1. Market size and forecast, by Type
      - 7.5.5.2.2. Market size and forecast, by Technology
      - 7.5.5.2.3. Market size and forecast, by Application
    - 7.5.5.3. Africa

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- 7.5.5.3.1. Market size and forecast, by Type
- 7.5.5.3.2. Market size and forecast, by Technology
- 7.5.5.3.3. Market size and forecast, by Application

## CHAPTER 8: COMPETITIVE LANDSCAPE

- 8.1. Introduction
- 8.2. Top winning strategies
- 8.3. Product Mapping of Top 10 Player
- 8.4. Competitive Dashboard
- 8.5. Competitive Heatmap
- 8.6. Top player positioning, 2022

## CHAPTER 9: COMPANY PROFILES

- 9.1. Robert Bosch GmbH
  - 9.1.1. Company overview
  - 9.1.2. Key Executives
  - 9.1.3. Company snapshot
  - 9.1.4. Operating business segments
  - 9.1.5. Product portfolio
  - 9.1.6. Business performance
  - 9.1.7. Key strategic moves and developments
- 9.2. Teledyne Technologies Incorporated
  - 9.2.1. Company overview
  - 9.2.2. Key Executives
  - 9.2.3. Company snapshot
  - 9.2.4. Operating business segments
  - 9.2.5. Product portfolio
  - 9.2.6. Business performance
  - 9.2.7. Key strategic moves and developments
- 9.3. Sensirion AG
  - 9.3.1. Company overview
  - 9.3.2. Key Executives
  - 9.3.3. Company snapshot
  - 9.3.4. Operating business segments
  - 9.3.5. Product portfolio
  - 9.3.6. Business performance
- 9.4. Sensata Technologies, Inc.
  - 9.4.1. Company overview
  - 9.4.2. Key Executives
  - 9.4.3. Company snapshot
  - 9.4.4. Operating business segments
  - 9.4.5. Product portfolio
  - 9.4.6. Business performance
- 9.5. MEMSIC Semiconductor Co., Ltd.
  - 9.5.1. Company overview
  - 9.5.2. Key Executives
  - 9.5.3. Company snapshot
  - 9.5.4. Operating business segments
  - 9.5.5. Product portfolio

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- 9.6. Goertek Inc.
  - 9.6.1. Company overview
  - 9.6.2. Key Executives
  - 9.6.3. Company snapshot
  - 9.6.4. Operating business segments
  - 9.6.5. Product portfolio
  - 9.6.6. Business performance
- 9.7. HOKURIKU ELECTRIC INDUSTRY CO., LTD.
  - 9.7.1. Company overview
  - 9.7.2. Key Executives
  - 9.7.3. Company snapshot
  - 9.7.4. Operating business segments
  - 9.7.5. Product portfolio
  - 9.7.6. Business performance
- 9.8. Sony Corporation
  - 9.8.1. Company overview
  - 9.8.2. Key Executives
  - 9.8.3. Company snapshot
  - 9.8.4. Operating business segments
  - 9.8.5. Product portfolio
  - 9.8.6. Business performance
- 9.9. TE Connectivity Ltd.
  - 9.9.1. Company overview
  - 9.9.2. Key Executives
  - 9.9.3. Company snapshot
  - 9.9.4. Operating business segments
  - 9.9.5. Product portfolio
  - 9.9.6. Business performance
- 9.10. STMicroelectronics N.V.
  - 9.10.1. Company overview
  - 9.10.2. Key Executives
  - 9.10.3. Company snapshot
  - 9.10.4. Operating business segments
  - 9.10.5. Product portfolio
  - 9.10.6. Business performance

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