

# Machine Vision Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

https://marketpublishers.com/r/M1031C03D07EN.html

Date: January 2023

Pages: 110

Price: US\$ 2,499.00 (Single User License)

ID: M1031C03D07EN

# **Abstracts**

The global machine vision market size reached US\$ 12.1 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 19.7 Billion by 2028, exhibiting a growth rate (CAGR) of 9.3% during 2023-2028.

Machine vision, also known as vision system or industrial vision, is a technology used for observing all types of machinery processes. It usually consists of various cameras which are installed over the machines depending upon the requirement so that the entire process can undergo a proper vigilance. These cameras are fixed to perform the task of capturing and interpreting along with giving a signal as per the requirements. Machine vision technology works by the precise coordination of software and hardware. Machine vision is currently providing numerous benefits to organizations such as improving quality, increasing productivity, lowering production costs, reducing floor space, increasing production flexibility, lowering capital equipment costs, etc.

Whereas human vision is ideal for qualitative interpretation of a complex, unstructured scene, machine vision stands out at quantitative measurement of a structured scene catalyzed by its speed, accuracy, and repeatability. For instance, during a production process, a machine vision system has the capability to inspect hundreds, or even thousands, of parts per minute. A machine vision system built around the right camera resolution and optics can effortlessly inspect object details that may otherwise be too small to be viewed by the human eye. In addition, in removing physical contact between a test system and the parts that are being tested, machine vision averts part damage and reduces the maintenance time and costs linked with the wear and tear on mechanical components. Moreover, machine vision provides additional safety and operational advantages by reducing manual involvement in the production process. Nevertheless, machine vision also helps in preventing human contamination of clean



rooms and protects human workers from environments that could be hazardous.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global machine vision market report, along with forecasts at the global and regional level from 2023-2028. Our report has categorized the market based on product, component, application, and industry.

Vision Systems
Cameras
Others

Breakup by Product:

Based on the product, the market has been segmented as vision systems, cameras and others.

Breakup by Component:

Hardware Software

Based on the component, the market has been segmented as hardware and software.

Breakup by Application:

Positioning
Identification
Verification
Measurement

Flaw Detection

Others

Based on the application, the market has been segmented as positioning, identification, verification, measurement, flaw detection and others.

Breakup by Industry:



Electronics and Semiconductor Automotive Medical and Pharmaceutical Food, Packaging and Printing Security and Surveillance Intelligent Traffic System Others

Based on the industry, the market has been segmented as electronics and semiconductor; automotive; medical and pharmaceutical; food; packaging and printing; security and surveillance; intelligent traffic system; and others.

## Regional Insights:

Asia Pacific
Europe
North America
Middle East and Africa
Latin America

Region-wise, the market has been segmented into Asia Pacific, Europe, North America, Middle East and Africa, and Latin America.

#### Competitive Landscape:

The report has also analyzed the competitive landscape of the market with some of the key players being Cognex Corporation, Basler AG, Omron Corporation, National Instruments Corporation, Keyence Corporation, Sony Corporation, Teledyne Technologies, Inc., Texas Instruments, Inc, Allied Vision Technologies GmbH, Intel Corporation, Baumer Optronic GmbH and Jai A/S.

This report provides a deep insight into the global machine vision market covering all its essential aspects. This ranges from macro overview of the market to micro details of the industry performance, recent trends, key market drivers and challenges, SWOT analysis, Porter's five forces analysis, value chain analysis, etc. This report is a must-read for entrepreneurs, investors, researchers, consultants, business strategists, and all those who have any kind of stake or are planning to foray into the machine vision market in any manner.

#### Key Questions Answered in This Report



- 1. What was the size of the global machine vision market in 2022?
- 2. What is the expected growth rate of the global machine vision market during 2023-2028?
- 3. What are the key factors driving the global machine vision market?
- 4. What has been the impact of COVID-19 on the global machine vision market?
- 5. What is the breakup of the global machine vision market based on the product?
- 6. What is the breakup of the global machine vision market based on the component?
- 7. What is the breakup of the global machine vision market based on the application?
- 8. What is the breakup of the global machine vision market based on the industry?
- 9. What are the key regions in the global machine vision market?
- 10. Who are the key players/companies in the global machine vision market?



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