

3D Machine Vision Market with COVID-19 impact Analysis by Offering (Hardware and Software), Product (PC-based and Smart Camera-based), Application, Vertical (Industrial and Non-Industrial) & Geography - Global Forecast till 2025

<https://marketpublishers.com/r/3AA5935D320EN.html>

Date: July 2020

Pages: 234

Price: US\$ 4,950.00 (Single User License)

ID: 3AA5935D320EN

Abstracts

Hardware expected to hold the largest share in the 3D machine vision market

The 3D machine vision market was valued at USD 1.5 billion in 2020 and is projected to reach

USD 2.4 billion by 2025; it is expected to grow at a CAGR of 9.4% from 2020 to 2025. The hardware segment of the market it is expected to hold the largest share from 2020 to 2025. The 3D machine vision systems are gaining significant traction worldwide, owing to the less chances of quality errors and easy availability of comprehensive software solutions required for developing and deploying 3D machine vision systems.

Software machine vision is expected to grow at a faster rate during the forecast period

The integration of AI in industrial machine vision software is expected to fuel the growth of the industrial 3D machine vision market for software during the forecasted period as deep learning enables machines to recognize objects. Also, deep learning-based machine vision software helps in minimizing human intervention and provide a real-time solution by distinguishing the acceptable variations in products and the defects in manufacturing industries.

The smart camera-based systems is projected to grow at the highest CAGR from 2020

to 2025.

The growth of the measurement segment can be attributed to the increased use of smart camera-based 3D machine vision systems for integrating programmable automation controllers with human-machine interfaces. A smart camera-based system comprises sensors, processors, camera-to-computer interfaces, and lenses. In other words, in a smart camera, all the components, from the camera to processors and input-output devices, are embedded in a small box. These systems are specially made to replace PC systems that rely on separate cameras, frame grabbers, and software components, among others. These systems consist of an embedded controller with integrated vision software, which is directly connected to one or more cameras that may vary in image resolution and size and imaging rates.

Quality assurance and inspection to hold the largest market share in the 3D machine vision market during the forecast period

The key factors driving the growth of the industrial machine vision market for quality assurance and inspection applications include the increasing demand for quality products, growing manufacturing capacity, and shortage of skilled labor. 3D Machine vision systems are also used for inspection and quality assurance of automotive components such as brake disks, height of the windshield, doors, and windows. In the semiconductor industry, 3D machine vision is used for inspecting the lead quality in leaded IC packages.

Food and beverages industry to grow at the fastest rate in the 3D machine vision market during the forecast period

The growth of this segment can be attributed to the increased use of 3D machine vision systems for checking the quality and dimensions of food; for instance, 3D machine vision systems are used to monitor the height of cookies on an assembly line. The food industry is highly labor-intensive. Labor cost is approximately 50% of the product cost, and most of it is repetitive work. This leads to poor quality control and accidents. If the labor cost is reduced by 3D automation by using machine vision systems, the overall cost is likely to be reduced, including labor and medical costs. The post-COVID-19 scenario is expected to witness high demand for automation in the food industry to ensure minimum human intervention during the manufacturing and the processing of food items.

APAC held the largest market share in the 3D machine vision market between 2020 and

2025

The machine vision market in APAC is expected to hold a major market share during the forecast period as countries in APAC such as China, Japan, India, and South Korea have some of the largest manufacturing facilities wherein automation of manufacturing processes has been taken as the highest priority. The decrease in the number of COVID-19 patients in China is slowly leading to normal manufacturing activities in the country. This, in turn, is expected to drive the growth of the machine vision market in APAC, but it is expected that this growth will not be as significant as it would have been in the pre-COVID-19 era.

In the process of determining and verifying the market size for several segments and subsegments gathered through secondary research, extensive primary interviews have been conducted with key industry experts in computational photography marketplace. The break-up of primary participants for the report has been shown below:

By Company Type: Tier 1 = 20%, Tier 2 = 55%, and Tier 3 = 25%

By Designation: C-Level Executives = 75% and Manager = 25%

By Region: North America = 60%, Europe = 20%, APAC = 10%, and RoW = 10%

The key players in the ecosystem of the 3D machine vision market profiled in this report are OMRON Corporation (Japan), Keyence Corporation (Japan), Cognex Corporation (US), Basler AG (Germany), National Instruments (US), ISRA Vision AG (Germany), TKH group (Netherlands), Stemmer Imaging (Germany), MVTec Software GmbH (Germany), and Tordivel AS (Norway).

Research Coverage:

This research report categorizes the global 3D machine vision based on offering, product, application, industrial & non-industrial verticals, and geography. The report describes the major drivers, restraints, challenges, and opportunities pertaining to the machine vision market and forecasts the same till 2025.

Key Benefits of Buying the Report

The report would help leaders/new entrants in this market in the following ways:

1. This report segments the machine vision market comprehensively and provides the closest market size projection for all subsegments across different regions.
2. The report helps stakeholders understand the pulse of the market and provides them with information on key drivers, restraints, challenges, and opportunities for market growth.
3. This report would help stakeholders understand their competitors better and gain more insights to improve their position in the business. The competitive landscape section includes product launches, acquisition, and partnership, and agreements.
4. This report would help understand the pre and post-COVID-19 scenarios as to how would the penetration of machine vision will look like for the forecast period. The region segment includes the country wise impact analysis of COVID-19 and initiatives taken to overcome these impacts.

Contents

1 INTRODUCTION

- 1.1 STUDY OBJECTIVES
- 1.2 MARKET DEFINITION
 - 1.2.1 INCLUSIONS AND EXCLUSIONS
- 1.3 STUDY SCOPE
 - 1.3.1 MARKETS COVERED
 - FIGURE 1 MARKET SEGMENTATION
 - 1.3.2 GEOGRAPHIC SCOPE
 - 1.3.3 YEARS CONSIDERED
- 1.4 CURRENCY
- 1.5 LIMITATIONS
- 1.6 STAKEHOLDERS

2 RESEARCH METHODOLOGY

- 2.1 RESEARCH DATA
 - FIGURE 2 3D MACHINE VISION MARKET: RESEARCH DESIGN
 - 2.1.1 SECONDARY AND PRIMARY RESEARCH
 - 2.1.1.1 Key industry insights
 - 2.1.2 SECONDARY DATA
 - 2.1.2.1 Major secondary sources
 - 2.1.2.2 Key data from secondary sources
 - 2.1.3 PRIMARY DATA
 - 2.1.3.1 Primary interviews with experts
 - 2.1.3.2 Breakdown of primaries
 - 2.1.3.3 Key data from primary sources
- 2.2 MARKET SIZE ESTIMATION
 - 2.2.1 BOTTOM-UP APPROACH
 - 2.2.1.1 Approach for capturing market share by bottom-up analysis
(demand side)
 - FIGURE 3 MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH
 - 2.2.2 TOP-DOWN APPROACH
 - 2.2.2.1 Approach for capturing market share by top-down analysis
(supply side)
 - FIGURE 4 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH

2.3 MARKET BREAKDOWN AND DATA TRIANGULATION

FIGURE 5 DATA TRIANGULATION

2.4 RESEARCH ASSUMPTIONS

FIGURE 6 ASSUMPTIONS FOR RESEARCH STUDY

3 EXECUTIVE SUMMARY

FIGURE 7 QUALITY ASSURANCE & INSPECTION SEGMENT TO HOLD THE LARGEST SIZE OF THE 3D MACHINE VISION MARKET FROM 2020 TO 2025

FIGURE 8 HARDWARE SEGMENT TO HOLD LARGE SIZE OF THE 3D MACHINE VISION MARKET FROM 2020 TO 2025

FIGURE 9 SMART CAMERA-BASED SYSTEMS SEGMENT TO HOLD LARGE SIZE OF THE 3D MACHINE VISION MARKET FROM 2020 TO 2025

FIGURE 10 NON-INDUSTRIAL SEGMENT TO GROW WITH THE HIGHEST CAGR IN

3D MACHINE VISION MARKET FROM 2020 TO 2025

FIGURE 11 3D MACHINE VISION MARKET, BY REGION, 2019

FIGURE 12 APAC TO LEAD THE 3D MACHINE VISION MARKET FROM 2020 TO 2025

4 PREMIUM INSIGHTS

4.1 3D MACHINE VISION MARKET, 2020–2025 (USD MILLION)

FIGURE 13 INDUSTRIAL SEGMENT HELD LARGE SHARE OF THE 3D MACHINE VISION MARKET IN 2019

4.2 3D MACHINE VISION MARKET, BY APPLICATION, 2020 & 2025

FIGURE 14 QUALITY ASSURANCE & INSPECTION SEGMENT TO HOLD THE LARGEST SIZE OF THE 3D MACHINE VISION MARKET BY 2025

4.3 3D MACHINE VISION MARKET, BY REGION, 2020–2025

FIGURE 15 3D MACHINE VISION MARKET IN APAC TO GROW AT THE HIGHEST RATE FROM 2020 TO 2025

4.4 3D MACHINE VISION MARKET, BY OFFERING, 2020 & 2025

FIGURE 16 HARDWARE SEGMENT TO HOLD LARGE SIZE OF THE 3D MACHINE VISION MARKET FROM 2020 TO 2025

4.5 3D MACHINE VISION MARKET, BY PRODUCT, 2020 & 2025

FIGURE 17 SMART CAMERA-BASED SYSTEMS SEGMENT TO HOLD LARGE SIZE OF THE 3D MACHINE VISION MARKET FROM 2020 TO 2025

4.6 3D MACHINE VISION MARKET, BY VERTICAL, 2020 & 2025

FIGURE 18 NON-INDUSTRIAL SEGMENT OF 3D MACHINE VISION MARKET TO GROW AT HIGH CAGR FROM 2020 TO 2025

5 COVID-19 IMPACT ON 3D MACHINE VISION MARKET

FIGURE 19 PRE-COVID-19 AND POST-COVID-19 SCENARIOS FOR 3D MACHINE VISION MARKET

5.1 PRE-COVID-19 SCENARIO

5.2 POST-COVID-19 SCENARIO

5.3 INDUSTRIAL IMPACT

5.4 REGIONAL IMPACT

6 MARKET OVERVIEW

6.1 INTRODUCTION

6.2 MARKET DYNAMICS

FIGURE 20 INCREASING DEMAND FOR 3D OBJECT ANALYSES IN MANUFACTURING APPLICATIONS DRIVING THE GROWTH OF THE 3D MACHINE VISION MARKET

6.2.1 DRIVERS

FIGURE 21 MACHINE VISION MARKET: DRIVERS AND THEIR IMPACT

6.2.1.1 Increasing need for quality inspection and automation

6.2.1.2 Growing demand for vision-guided robotics systems

6.2.1.3 Rising need for ASICs

6.2.1.4 Growing need for inspection in food and packaging industries

6.2.2 RESTRAINTS

FIGURE 22 MACHINE VISION MARKET RESTRAINTS AND THEIR IMPACT

6.2.2.1 Varying end-user requirements

6.2.2.2 Lack of skilled professionals in manufacturing factories

FIGURE 23 UNDERQUALIFIED WORKERS IN VARIOUS COUNTRIES IN 2019

6.2.3 OPPORTUNITIES

FIGURE 24 MACHINE VISION MARKET OPPORTUNITIES AND THEIR IMPACT

6.2.3.1 Increasing manufacturing of hybrid and electric cars

FIGURE 25 INCREASING DEMAND FOR HYBRID AND ELECTRIC VEHICLES BETWEEN 2020 AND 2040

6.2.3.2 Government initiatives to support industrial automation

6.2.3.3 Increasing demand for artificial intelligence (AI) in machine vision

6.2.3.4 Growing adoption of Industry 4.0

6.2.3.5 Increasing wages leading to opportunities in vision-guided industrial robots and other automation technologies in China

FIGURE 26 AVERAGE YEARLY WAGES IN THE MANUFACTURING SECTOR IN CHINA

6.2.4 CHALLENGES

FIGURE 27 3D MACHINE VISION MARKET CHALLENGES AND THEIR IMPACT

6.2.4.1 Complexity in integrating 3D machine vision systems

6.2.4.2 Lack of user awareness about rapidly changing 3D machine vision technology

7 3D MACHINE VISION MARKET, BY OFFERING

7.1 INTRODUCTION

FIGURE 28 HARDWARE SEGMENT TO HOLD LARGE SIZE OF THE 3D MACHINE VISION MARKET FROM 2020 TO 2025

TABLE 1 PRE-COVID-19: 3D MACHINE VISION MARKET, BY OFFERING, 2017–2022 (USD MILLION)

TABLE 2 POST-COVID-19: 3D MACHINE VISION MARKET, BY OFFERING, 2017–2025 (USD MILLION)

7.2 HARDWARE

TABLE 3 3D MACHINE VISION MARKET FOR HARDWARE, BY OFFERING, 2017–2019 (USD MILLION)

TABLE 4 3D MACHINE VISION MARKET FOR HARDWARE, BY OFFERING, 2020–2025 (USD MILLION)

TABLE 5 3D MACHINE VISION MARKET FOR HARDWARE, BY REGION, 2017–2019 (USD MILLION)

TABLE 6 3D MACHINE VISION MARKET FOR HARDWARE, BY REGION, 2020–2025 (USD MILLION)

7.2.1 CAMERAS

7.2.1.1 Camera type

7.2.1.1.1 Line scan cameras

7.2.1.1.2 Area scan cameras

TABLE 7 3D MACHINE VISION MARKET FOR CAMERAS, BY CAMERA TYPE, 2017–2019 (USD MILLION)

TABLE 8 3D MACHINE VISION MARKET FOR CAMERAS, BY CAMERA TYPE, 2020–2025 (USD MILLION)

7.2.1.2 Image detection technique

7.2.1.2.1 Stereoscopic vision systems

FIGURE 29 WORKING OF STEREOSCOPIC VISION CAMERAS

7.2.1.2.2 Structured light systems

7.2.1.2.3 Time-of-flight (TOF) technique

FIGURE 30 WORKING OF TIME-OF-FLIGHT SENSORS

TABLE 9 3D MACHINE VISION MARKET FOR CAMERAS, BY IMAGE DETECTION TECHNIQUE, 2017–2019 (USD MILLION)

TABLE 10 3D MACHINE VISION MARKET FOR CAMERAS, BY IMAGE DETECTION TECHNIQUE, 2020–2025 (USD MILLION)

7.2.1.2.4 Comparison between 3D machine vision technologies

TABLE 11 COMPARATIVE STUDY OF 3D MACHINE VISION TECHNOLOGIES

7.2.2 FRAME GRABBERS

7.2.3 OPTICS

7.2.4 LIGHTING

7.2.5 OTHERS

7.3 SOFTWARE

TABLE 12 3D MACHINE VISION MARKET FOR SOFTWARE, BY TYPE, 2017–2019 (USD MILLION)

TABLE 13 3D MACHINE VISION MARKET FOR SOFTWARE, BY TYPE, 2020–2025 (USD MILLION)

TABLE 14 3D MACHINE VISION MARKET FOR SOFTWARE, BY REGION, 2017–2019 (USD MILLION)

TABLE 15 3D MACHINE VISION MARKET FOR SOFTWARE, BY REGION, 2020–2025 (USD MILLION)

7.3.1 TRADITIONAL

7.3.2 DEEP LEARNING

8 3D MACHINE VISION MARKET, BY PRODUCT

8.1 INTRODUCTION

FIGURE 31 SMART CAMERA-BASED SYSTEMS SEGMENT TO HOLD LARGE SIZE OF THE 3D MACHINE VISION MARKET FROM 2020 TO 2025

TABLE 16 PRE-COVID-19: 3D MACHINE VISION MARKET, BY PRODUCT, 2017–2022 (USD MILLION)

TABLE 17 POST-COVID-19: 3D MACHINE VISION MARKET, BY PRODUCT, 2017–2025 (USD MILLION)

8.2 SMART CAMERA-BASED SYSTEMS

TABLE 18 3D MACHINE VISION MARKET FOR SMART CAMERA-BASED SYSTEMS, BY APPLICATION, 2017–2019 (USD MILLION)

TABLE 19 3D MACHINE VISION MARKET FOR SMART CAMERA-BASED SYSTEMS, BY APPLICATION, 2020–2025 (USD MILLION)

8.3 PC-BASED SYSTEMS

TABLE 20 3D MACHINE VISION MARKET FOR PC-BASED SYSTEMS, BY APPLICATION, 2017–2019 (USD MILLION)

TABLE 21 3D MACHINE VISION MARKET FOR PC-BASED SYSTEMS, BY APPLICATION, 2020–2025 (USD MILLION)

9 3D MACHINE VISION MARKET, BY APPLICATION

9.1 INTRODUCTION

FIGURE 32 QUALITY ASSURANCE & INSPECTION SEGMENT TO HOLD THE LARGEST SIZE OF THE 3D MACHINE VISION MARKET FROM 2020 TO 2025

TABLE 22 PRE-COVID-19: 3D MACHINE VISION MARKET, BY APPLICATION, 2017–2022 (USD MILLION)

TABLE 23 POST-COVID-19: 3D MACHINE VISION MARKET, BY APPLICATION, 2017–2025 (USD MILLION)

9.2 QUALITY ASSURANCE & INSPECTION

TABLE 24 3D MACHINE VISION MARKET FOR QUALITY ASSURANCE & INSPECTION, BY PRODUCT, 2017–2019 (USD MILLION)

TABLE 25 3D MACHINE VISION MARKET FOR QUALITY ASSURANCE & INSPECTION, BY PRODUCT, 2020–2025 (USD MILLION)

9.3 POSITIONING & GUIDANCE

TABLE 26 3D MACHINE VISION MARKET FOR POSITIONING & GUIDANCE, BY PRODUCT, 2017–2019 (USD MILLION)

TABLE 27 3D MACHINE VISION MARKET FOR POSITIONING & GUIDANCE, BY PRODUCT, 2020–2025 (USD MILLION)

9.4 MEASUREMENT

TABLE 28 3D MACHINE VISION MARKET FOR MEASUREMENT, BY PRODUCT, 2017–2019 (USD MILLION)

TABLE 29 3D MACHINE VISION MARKET FOR MEASUREMENT, BY PRODUCT, 2020–2025 (USD MILLION)

9.5 IDENTIFICATION

TABLE 30 3D MACHINE VISION MARKET FOR IDENTIFICATION APPLICATION, BY PRODUCT, 2017–2019 (USD MILLION)

TABLE 31 3D MACHINE VISION MARKET FOR IDENTIFICATION APPLICATION, BY PRODUCT, 2020–2025 (USD MILLION)

10 3D MACHINE VISION MARKET, BY VERTICAL

10.1 INTRODUCTION

FIGURE 33 3D MACHINE VISION MARKET, BY VERTICAL

FIGURE 34 INDUSTRIAL SEGMENT TO HOLD LARGE SIZE OF THE 3D MACHINE VISION MARKET FROM 2020 TO 2025

TABLE 32 PRE-COVID-19: 3D MACHINE VISION MARKET, BY VERTICAL, 2017–2022 (USD MILLION)

TABLE 33 POST-COVID-19: 3D MACHINE VISION MARKET, BY VERTICAL, 2017–2025 (USD MILLION)

10.2 INDUSTRIAL

TABLE 34 3D MACHINE VISION MARKET, BY INDUSTRIAL VERTICAL, 2017–2019 (USD MILLION)

TABLE 35 3D MACHINE VISION MARKET, BY INDUSTRIAL VERTICAL, 2020–2025 (USD MILLION)

TABLE 36 3D MACHINE VISION MARKET FOR INDUSTRIAL VERTICAL, BY REGION, 2017–2019 (USD MILLION)

TABLE 37 3D MACHINE VISION MARKET FOR INDUSTRIAL VERTICAL, BY REGION, 2020–2025 (USD MILLION)

10.2.1 AUTOMOTIVE

10.2.1.1 Impact of COVID-19

TABLE 38 3D MACHINE VISION MARKET FOR AUTOMOTIVE, BY REGION, 2017–2019 (USD MILLION)

TABLE 39 3D MACHINE VISION MARKET FOR AUTOMOTIVE, BY REGION, 2020–2025 (USD MILLION)

10.2.2 SEMICONDUCTOR, IC, AND PCB

10.2.2.1 Impact of COVID-19

TABLE 40 3D MACHINE VISION MARKET FOR SEMICONDUCTOR, IC, AND PCB, BY REGION, 2017–2019 (USD MILLION)

TABLE 41 3D MACHINE VISION MARKET FOR SEMICONDUCTOR, IC, AND PCB, BY REGION, 2020–2025 (USD MILLION)

10.2.3 CONSUMER ELECTRONICS

10.2.3.1 Impact of COVID-19

TABLE 42 3D MACHINE VISION MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2017–2019 (USD MILLION)

TABLE 43 3D MACHINE VISION MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2020–2025 (USD MILLION)

10.2.4 GLASS

10.2.4.1 Impact of COVID-19

TABLE 44 3D MACHINE VISION MARKET FOR GLASS, BY REGION, 2017–2019 (USD MILLION)

TABLE 45 3D MACHINE VISION MARKET FOR GLASS, BY REGION, 2020–2025 (USD MILLION)

10.2.5 METALS

10.2.5.1 Impact of COVID-19

TABLE 46 3D MACHINE VISION MARKET FOR METALS, BY REGION, 2017–2019 (USD MILLION)

TABLE 47 3D MACHINE VISION MARKET FOR METALS, BY REGION, 2020–2025 (USD MILLION)

10.2.6 WOOD & PAPER

10.2.6.1 Impact of COVID-19

TABLE 48 3D MACHINE VISION MARKET FOR WOOD & PAPER, BY REGION, 2017–2019 (USD MILLION)

TABLE 49 3D MACHINE VISION MARKET FOR WOOD & PAPER, BY REGION, 2020–2025 (USD MILLION)

10.2.7 PHARMACEUTICAL & MEDICAL DEVICES

10.2.7.1 Impact of COVID-19

TABLE 50 3D MACHINE VISION MARKET FOR PHARMACEUTICAL AND MEDICAL DEVICES, BY REGION, 2017–2019 (USD MILLION)

TABLE 51 3D MACHINE VISION MARKET FOR PHARMACEUTICAL AND MEDICAL DEVICES, BY REGION, 2020–2025 (USD MILLION)

10.2.8 RUBBER & PLASTICS

10.2.8.1 Impact of COVID-19

TABLE 52 3D MACHINE VISION MARKET FOR RUBBER & PLASTICS, BY REGION, 2017–2019 (USD MILLION)

TABLE 53 3D MACHINE VISION MARKET FOR RUBBER & PLASTICS, BY REGION, 2020–2025 (USD MILLION)

10.2.9 FOOD & BEVERAGES

10.2.9.1 Impact of COVID-19

TABLE 54 3D MACHINE VISION MARKET FOR FOOD & BEVERAGES, BY REGION, 2017–2019 (USD MILLION)

TABLE 55 3D MACHINE VISION MARKET FOR FOOD & BEVERAGES, BY REGION, 2020–2025 (USD MILLION)

10.2.10 PRINTING AND PUBLISHING

10.2.10.1 Impact of COVID-19

TABLE 56 3D MACHINE VISION MARKET FOR PRINTING AND PUBLISHING, BY REGION, 2017–2019 (USD MILLION)

TABLE 57 3D MACHINE VISION MARKET FOR PRINTING AND PUBLISHING, BY REGION, 2020–2025 (USD MILLION)

10.2.11 SOLAR PANEL MANUFACTURING

10.2.11.1 Impact of COVID-19

TABLE 58 3D MACHINE VISION MARKET FOR SOLAR PANEL MANUFACTURING,

BY REGION, 2017–2019 (USD MILLION)

TABLE 59 3D MACHINE VISION MARKET FOR SOLAR PANEL MANUFACTURING, BY REGION, 2020–2025 (USD MILLION)

10.2.12 MACHINERY TOOLS

TABLE 60 3D MACHINE VISION MARKET FOR MACHINERY TOOLS, BY REGION, 2017–2019 (USD MILLION)

TABLE 61 3D MACHINE VISION MARKET FOR MACHINERY TOOLS, BY REGION, 2020–2025 (USD MILLION)

10.3 NON-INDUSTRIAL

TABLE 62 3D MACHINE VISION MARKET, BY NON-INDUSTRIAL VERTICAL, 2017–2019 (USD MILLION)

TABLE 63 3D MACHINE VISION MARKET, BY NON-INDUSTRIAL VERTICAL, 2020–2025 (USD MILLION)

TABLE 64 3D MACHINE VISION MARKET FOR NON-INDUSTRIAL VERTICAL, BY REGION, 2017–2019 (USD MILLION)

TABLE 65 3D MACHINE VISION MARKET FOR NON-INDUSTRIAL VERTICAL, BY REGION, 2020–2025 (USD MILLION)

10.3.1 HEALTHCARE

10.3.1.1 Impact of COVID-19

TABLE 66 3D MACHINE VISION MARKET FOR HEALTHCARE, BY REGION, 2017–2019 (USD MILLION)

TABLE 67 3D MACHINE VISION MARKET FOR HEALTHCARE, BY REGION, 2020–2025 (USD MILLION)

10.3.2 SECURITY AND SURVEILLANCE

10.3.2.1 Impact of COVID-19

TABLE 68 3D MACHINE VISION MARKET FOR SECURITY AND SURVEILLANCE, BY REGION, 2017–2019 (USD MILLION)

TABLE 69 3D MACHINE VISION MARKET FOR SECURITY AND SURVEILLANCE, BY REGION, 2020–2025 (USD MILLION)

10.3.3 POSTAL AND LOGISTICS

10.3.3.1 Impact of COVID-19

TABLE 70 3D MACHINE VISION MARKET FOR POSTAL AND LOGISTICS, BY REGION, 2017–2019 (USD MILLION)

TABLE 71 3D MACHINE VISION MARKET FOR POSTAL AND LOGISTICS, BY REGION, 2020–2025 (USD MILLION)

10.3.4 INTELLIGENT TRANSPORTATION SYSTEMS

10.3.4.1 Impact of COVID-19

TABLE 72 3D MACHINE VISION MARKET FOR INTELLIGENT TRANSPORTATION SYSTEMS, BY REGION, 2017–2019 (USD MILLION)

TABLE 73 3D MACHINE VISION MARKET FOR INTELLIGENT TRANSPORTATION SYSTEMS, BY REGION, 2020–2025 (USD MILLION)

10.3.5 MILITARY & DEFENSE

10.3.5.1 Impact of COVID-19

TABLE 74 3D MACHINE VISION MARKET FOR MILITARY & DEFENSE, BY REGION, 2017–2019 (USD MILLION)

TABLE 75 3D MACHINE VISION MARKET FOR MILITARY & DEFENSE, BY REGION, 2020–2025 (USD MILLION)

11 GEOGRAPHIC ANALYSIS

11.1 INTRODUCTION

11.1.1 IMPACT OF COVID-19

FIGURE 35 GEOGRAPHIC SNAPSHOT OF THE 3D MACHINE VISION MARKET CAGR (2020–2025)

FIGURE 36 APAC TO LEAD THE 3D MACHINE VISION MARKET FROM 2020 TO 2025

TABLE 76 PRE-COVID-19: 3D MACHINE VISION MARKET, BY REGION, 2017–2022 (USD MILLION)

TABLE 77 POST-COVID-19: 3D MACHINE VISION MARKET, BY REGION, 2017–2025 (USD MILLION)

11.2 NORTH AMERICA

11.2.1 IMPACT OF COVID-19

FIGURE 37 SNAPSHOT OF THE 3D MACHINE VISION MARKET IN NORTH AMERICA

TABLE 78 3D MACHINE VISION MARKET IN NORTH AMERICA, BY VERTICAL, 2017–2019 (USD MILLION)

TABLE 79 3D MACHINE VISION MARKET IN NORTH AMERICA, BY VERTICAL, 2020–2025 (USD MILLION)

TABLE 80 3D MACHINE VISION MARKET IN NORTH AMERICA, BY INDUSTRIAL VERTICAL, 2017–2019 (USD MILLION)

TABLE 81 3D MACHINE VISION MARKET IN NORTH AMERICA, BY INDUSTRIAL VERTICAL, 2020–2025 (USD MILLION)

TABLE 82 3D MACHINE VISION MARKET IN NORTH AMERICA, BY NON-INDUSTRIAL VERTICAL, 2017–2019 (USD MILLION)

TABLE 83 3D MACHINE VISION MARKET IN NORTH AMERICA, BY NON-INDUSTRIAL VERTICAL, 2020–2025 (USD MILLION)

TABLE 84 3D MACHINE VISION MARKET IN NORTH AMERICA, BY OFFERING, 2017–2019 (USD MILLION)

TABLE 85 3D MACHINE VISION MARKET IN NORTH AMERICA, BY OFFERING, 2020–2025 (USD MILLION)

TABLE 86 3D MACHINE VISION MARKET FOR HARDWARE IN NORTH AMERICA, BY OFFERING, 2017–2019 (USD MILLION)

TABLE 87 3D MACHINE VISION MARKET FOR HARDWARE IN NORTH AMERICA, BY OFFERING, 2020–2025 (USD MILLION)

TABLE 88 3D MACHINE VISION MARKET FOR SOFTWARE IN NORTH AMERICA, BY OFFERING, 2017–2019 (USD MILLION)

TABLE 89 3D MACHINE VISION MARKET FOR SOFTWARE IN NORTH AMERICA, BY OFFERING, 2020–2025 (USD MILLION)

11.2.2 US

11.2.2.1 Impact of COVID-19

11.2.3 CANADA

11.2.3.1 Impact of COVID-19

11.2.4 MEXICO

TABLE 90 3D MACHINE VISION MARKET IN NORTH AMERICA, BY COUNTRY, 2017–2019 (USD MILLION)

TABLE 91 3D MACHINE VISION MARKET IN NORTH AMERICA, BY COUNTRY, 2020–2025 (USD MILLION)

11.3 EUROPE

11.3.1 IMPACT OF COVID-19

FIGURE 38 SNAPSHOT OF THE 3D MACHINE VISION MARKET IN EUROPE

TABLE 92 3D MACHINE VISION MARKET IN EUROPE, BY VERTICAL, 2017–2019 (USD MILLION)

TABLE 93 3D MACHINE VISION MARKET IN EUROPE, BY VERTICAL, 2020–2025 (USD MILLION)

TABLE 94 3D MACHINE VISION MARKET IN EUROPE, BY INDUSTRIAL VERTICAL, 2017–2019 (USD MILLION)

TABLE 95 3D MACHINE VISION MARKET IN EUROPE, BY INDUSTRIAL VERTICAL, 2020–2025 (USD MILLION)

TABLE 96 3D MACHINE VISION MARKET IN EUROPE, BY NON-INDUSTRIAL VERTICAL, 2017–2019 (USD MILLION)

TABLE 97 3D MACHINE VISION MARKET IN EUROPE, BY NON-INDUSTRIAL VERTICAL, 2020–2025 (USD MILLION)

TABLE 98 3D MACHINE VISION MARKET IN EUROPE, BY OFFERING, 2017–2019 (USD MILLION)

TABLE 99 3D MACHINE VISION MARKET IN EUROPE, BY OFFERING, 2020–2025 (USD MILLION)

TABLE 100 3D MACHINE VISION MARKET FOR HARDWARE IN EUROPE, BY

OFFERING, 2017–2019 (USD MILLION)

TABLE 101 3D MACHINE VISION MARKET FOR HARDWARE IN EUROPE, BY OFFERING, 2020–2025 (USD MILLION)

TABLE 102 3D MACHINE VISION MARKET FOR SOFTWARE IN EUROPE, BY OFFERING, 2017–2019 (USD MILLION)

TABLE 103 3D MACHINE VISION MARKET FOR SOFTWARE IN EUROPE, BY OFFERING, 2020–2025 (USD MILLION)

11.3.2 UK

11.3.2.1 Impact of COVID-19

11.3.3 GERMANY

11.3.3.1 Impact of COVID-19

11.3.4 FRANCE

11.3.4.1 Impact of COVID-19

11.3.5 ITALY

11.3.5.1 Impact of COVID-19

11.3.6 SPAIN

11.3.7 REST OF EUROPE

TABLE 104 3D MACHINE VISION MARKET IN EUROPE, BY COUNTRY, 2017–2019 (USD MILLION)

TABLE 105 3D MACHINE VISION MARKET IN EUROPE, BY COUNTRY, 2020–2025 (USD MILLION)

11.4 APAC

11.4.1 IMPACT OF COVID-19

FIGURE 39 SNAPSHOT OF THE 3D MACHINE VISION MARKET IN APAC

TABLE 106 3D MACHINE VISION MARKET IN APAC, BY VERTICAL, 2017–2019 (USD MILLION)

TABLE 107 3D MACHINE VISION MARKET IN APAC, BY VERTICAL, 2020–2025 (USD MILLION)

TABLE 108 3D MACHINE VISION MARKET IN APAC, BY INDUSTRIAL VERTICAL, 2017–2019 (USD MILLION)

TABLE 109 3D MACHINE VISION MARKET IN APAC, BY INDUSTRIAL VERTICAL, 2020–2025 (USD MILLION)

TABLE 110 3D MACHINE VISION MARKET IN APAC, BY NON-INDUSTRIAL VERTICAL, 2017–2019 (USD MILLION)

TABLE 111 3D MACHINE VISION MARKET IN APAC, BY NON-INDUSTRIAL VERTICAL, 2020–2025 (USD MILLION)

TABLE 112 3D MACHINE VISION MARKET IN APAC, BY OFFERING, 2017–2019 (USD MILLION)

TABLE 113 3D MACHINE VISION MARKET IN APAC, BY OFFERING, 2020–2025

(USD MILLION)

TABLE 114 3D MACHINE VISION MARKET FOR HARDWARE IN APAC, BY OFFERING, 2017–2019 (USD MILLION)

TABLE 115 3D MACHINE VISION MARKET FOR HARDWARE IN APAC, BY OFFERING, 2020–2025 (USD MILLION)

TABLE 116 3D MACHINE VISION MARKET FOR SOFTWARE IN APAC, BY OFFERING, 2017–2019 (USD MILLION)

TABLE 117 3D MACHINE VISION MARKET FOR SOFTWARE IN APAC, BY OFFERING, 2020–2025 (USD MILLION)

11.4.2 CHINA

11.4.2.1 Impact of COVID-19

11.4.3 JAPAN

11.4.3.1 Impact of COVID-19

11.4.4 SOUTH KOREA

11.4.4.1 Impact of COVID-19

11.4.5 INDIA

11.4.5.1 Impact of COVID-19

11.4.6 REST OF APAC

TABLE 118 3D MACHINE VISION MARKET IN APAC, BY COUNTRY, 2017–2019 (USD MILLION)

TABLE 119 3D MACHINE VISION MARKET IN APAC, BY COUNTRY, 2020–2025 (USD MILLION)

11.5 ROW

11.5.1 IMPACT OF COVID-19

TABLE 120 3D MACHINE VISION MARKET IN ROW, BY VERTICAL, 2017–2019 (USD MILLION)

TABLE 121 3D MACHINE VISION MARKET IN ROW, BY VERTICAL, 2020–2025 (USD MILLION)

TABLE 122 3D MACHINE VISION MARKET IN ROW, BY INDUSTRIAL VERTICAL, 2017–2019 (USD MILLION)

TABLE 123 3D MACHINE VISION MARKET IN ROW, BY INDUSTRIAL VERTICAL, 2020–2025 (USD MILLION)

TABLE 124 3D MACHINE VISION MARKET IN ROW, BY NON-INDUSTRIAL VERTICAL, 2017–2019 (USD MILLION)

TABLE 125 3D MACHINE VISION MARKET IN ROW, BY NON-INDUSTRIAL VERTICAL, 2020–2025 (USD MILLION)

TABLE 126 3D MACHINE VISION MARKET IN ROW, BY OFFERING, 2017–2019 (USD MILLION)

TABLE 127 3D MACHINE VISION MARKET IN ROW, BY OFFERING, 2020–2025

(USD MILLION)

TABLE 128 3D MACHINE VISION MARKET FOR HARDWARE IN ROW, BY OFFERING, 2017–2019 (USD MILLION)

TABLE 129 3D MACHINE VISION MARKET FOR HARDWARE IN ROW, BY OFFERING, 2020–2025 (USD MILLION)

TABLE 130 3D MACHINE VISION MARKET FOR SOFTWARE IN ROW, BY OFFERING, 2017–2019 (USD MILLION)

TABLE 131 3D MACHINE VISION MARKET FOR SOFTWARE IN ROW, BY OFFERING, 2020–2025 (USD MILLION)

11.5.2 MIDDLE EAST

11.5.3 AFRICA

11.5.4 SOUTH AMERICA

TABLE 132 3D MACHINE VISION MARKET IN ROW, BY REGION, 2017–2019 (USD MILLION)

TABLE 133 3D MACHINE VISION MARKET IN ROW, BY REGION, 2020–2025 (USD MILLION)

12 COMPETITIVE LANDSCAPE

12.1 OVERVIEW

FIGURE 40 ORGANIC AND INORGANIC STRATEGIES ADOPTED BY COMPANIES OPERATING IN 3D MACHINE VISION MARKET FROM JANUARY 2017 TO MAY 2020

12.2 MARKET RANK ANALYSIS

FIGURE 41 MAJOR 3D MACHINE VISION PROVIDERS

12.3 COMPETITIVE SITUATION AND TRENDS

12.3.1 PRODUCT LAUNCHES

TABLE 134 PRODUCT LAUNCHES (JANUARY 2019–MAY 2020)

12.3.2 MERGERS & ACQUISITIONS

TABLE 135 MERGERS & ACQUISITIONS (JANUARY 2017–MAY 2020)

12.3.3 OTHERS

TABLE 136 AGREEMENTS (FEBRUARY 2018–MAY 2020)

12.4 COMPETITIVE LEADERSHIP MAPPING

12.4.1 VISIONARY LEADERS

12.4.2 DYNAMIC DIFFERENTIATORS

12.4.3 INNOVATORS

12.4.4 EMERGING COMPANIES

FIGURE 42 3D MACHINE VISION MARKET (GLOBAL) COMPETITIVE LEADERSHIP MAPPING, 2019

13 COMPANY PROFILES

(Business Overview, Products Offered, Recent Developments, SWOT Analysis, and MnM View)*

13.1 KEY PLAYERS

13.1.1 COGNEX CORPORATION

FIGURE 43 COGNEX CORPORATION: COMPANY SNAPSHOT

13.1.2 KEYENCE CORPORATION

FIGURE 44 KEYENCE: COMPANY SNAPSHOT

13.1.3 BASLER AG

FIGURE 45 BASLER AG: COMPANY SNAPSHOT

13.1.4 OMRON CORPORATION

FIGURE 46 OMRON CORPORATION: COMPANY SNAPSHOT

13.1.5 NATIONAL INSTRUMENTS

FIGURE 47 NATIONAL INSTRUMENTS: COMPANY SNAPSHOT

13.1.6 SONY CORPORATION

FIGURE 48 SONY CORPORATION: COMPANY SNAPSHOT

13.1.7 ISRA VISION AG

FIGURE 49 ISRA VISION AG: COMPANY SNAPSHOT

13.1.8 TKH GROUP

FIGURE 50 TKH GROUP: COMPANY SNAPSHOT

13.1.9 INTEL CORPORATION

FIGURE 51 INTEL CORPORATION: COMPANY SNAPSHOT

13.1.10 STEMMER IMAGING

13.2 RIGHT-TO-WIN

13.3 OTHER PLAYERS

13.3.1 AMETEK INC.

13.3.2 QUALITAS TECHNOLOGIES

13.3.3 BAUMER OPTRONIC

13.3.4 ALGOLUX

13.3.5 TORDIVEL AS

13.3.6 INUITIVE

13.3.7 MVTEC SOFTWARE GMBH

13.3.8 JAI A/S

13.3.9 INDUSTRIAL VISION SYSTEMS LTD.

13.3.10 HERMARY OPTO ELECTRONICS INC.

*Details on Business Overview, Products Offered, Recent Developments, SWOT Analysis, and MnM View might not be captured in case of unlisted companies.

14 ADJACENT AND RELATED MARKETS

14.1 INTRODUCTION

TABLE 137 ADJACENT MARKET ANALYSIS

14.2 MACHINE VISION MARKET

TABLE 138 POST-COVID-19: MACHINE VISION MARKET, BY DEPLOYMENT, 2017–2025 (USD MILLION)

TABLE 139 POST-COVID-19: MACHINE VISION MARKET, BY COMPONENT, 2017–2025 (USD MILLION)

TABLE 140 POST-COVID-19: MACHINE VISION MARKET, BY PRODUCT, 2017–2025 (USD MILLION)

TABLE 141 POST-COVID-19: MACHINE VISION MARKET, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 142 POST-COVID-19: MACHINE VISION MARKET, BY END-USER INDUSTRY, 2017–2025 (USD MILLION)

14.3 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET

TABLE 143 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET, BY COMPONENT, 2017–2025 (USD BILLION)

TABLE 144 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET FOR COMPONENT, BY PROCESS INDUSTRY, 2017–2025 (USD BILLION)

TABLE 145 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET FOR COMPONENT, BY DISCRETE INDUSTRY, 2017–2025 (USD BILLION)

TABLE 146 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET FOR INDUSTRIAL ROBOTS, BY PROCESS INDUSTRY, 2017–2025 (USD MILLION)

TABLE 147 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET FOR INDUSTRIAL ROBOTS, BY DISCRETE INDUSTRY, 2017–2025 (USD MILLION)

TABLE 148 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET FOR INDUSTRIAL ROBOTS, BY REGION, 2017–2025 (USD BILLION)

TABLE 149 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET FOR MACHINE VISION, BY PROCESS INDUSTRY, 2017–2025 (USD MILLION)

TABLE 150 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET FOR MACHINE VISION, BY DISCRETE INDUSTRY, 2017–2025 (USD MILLION)

TABLE 151 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET FOR MACHINE VISION, BY REGION, 2017–2025 (USD MILLION)

TABLE 152 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET FOR CONTROL VALVES, BY PROCESS INDUSTRY, 2017–2025 (USD MILLION)

TABLE 153 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET FOR CONTROL VALVES, BY REGION, 2017–2025 (USD MILLION)

TABLE 154 INDUSTRIAL CONTROL AND FACTORY AUTOMATION MARKET, BY REGION, 2017–2025 (USD BILLION)

14.4 SMART MANUFACTURING

FIGURE 52 SMART MANUFACTURING MARKET ECOSYSTEM

TABLE 155 PRE- AND POST-COVID-19 ANALYSIS FOR SMART MANUFACTURING MARKET, BY ENABLING TECHNOLOGY, 2017–2025 (USD BILLION)

FIGURE 53 IMPACT OF COVID-19 ON SMART MANUFACTURING MARKET FOR COLLABORATIVE ROBOTS

TABLE 156 PRE- AND POST-COVID-19 ANALYSIS FOR SMART MANUFACTURING MARKET, BY COLLABORATIVE ROBOT, 2017–2025 (USD BILLION)

FIGURE 54 IMPACT OF COVID-19 ON SMART MANUFACTURING MARKET FOR DIGITAL TWIN

TABLE 157 PRE- AND POST-COVID-19 ANALYSIS FOR SMART MANUFACTURING MARKET, BY DIGITAL TWIN, 2017–2025 (USD BILLION)

FIGURE 55 IMPACT OF COVID-19 ON SMART MANUFACTURING MARKET FOR INDUSTRIAL 3D PRINTING

TABLE 158 PRE- AND POST-COVID-19 ANALYSIS FOR SMART MANUFACTURING MARKET, BY INDUSTRIAL 3D PRINTING, 2017–2025 (USD BILLION)

FIGURE 56 IMPACT OF COVID-19 ON SMART MANUFACTURING MARKET FOR MACHINE CONDITION MONITORING

TABLE 159 PRE- AND POST-COVID-19 ANALYSIS FOR SMART MANUFACTURING MARKET, BY MACHINE CONDITION MONITORING, 2017–2025 (USD BILLION)

FIGURE 57 IMPACT OF COVID-19 ON SMART MANUFACTURING MARKET FOR OTHER ENABLING TECHNOLOGIES

TABLE 160 PRE- AND POST-COVID-19 ANALYSIS FOR SMART MANUFACTURING MARKET, BY OTHER ENABLING TECHNOLOGY, 2017–2025 (USD BILLION)

FIGURE 58 IMPACT OF COVID-19 ON SMART MANUFACTURING MARKET FOR INFORMATION TECHNOLOGIES

TABLE 161 PRE- AND POST-COVID-19 ANALYSIS FOR SMART MANUFACTURING MARKET, BY INFORMATION TECHNOLOGY, 2017–2025 (USD BILLION)

FIGURE 59 IMPACT OF COVID-19 ON SMART MANUFACTURING MARKET FOR MANUFACTURING EXECUTION SYSTEM

TABLE 162 PRE- AND POST-COVID-19 ANALYSIS OF SMART MANUFACTURING

MARKET, BY MANUFACTURING EXECUTION SYSTEM, 2017–2025 (USD BILLION)

FIGURE 60 IMPACT OF COVID-19 ON SMART MANUFACTURING MARKET FOR PLANT ASSET MANAGEMENT

TABLE 163 PRE- AND POST-COVID-19 ANALYSIS OF SMART MANUFACTURING MARKET, BY PLANT ASSET MANAGEMENT, 2017–2025 (USD BILLION)

TABLE 164 SMART MANUFACTURING MARKET, BY REGION, 2017–2025 (USD BILLION)

FIGURE 61 IMPACT OF COVID-19 ON SMART MANUFACTURING MARKET IN NORTH AMERICA

TABLE 165 PRE- AND POST-COVID-19 ANALYSIS FOR SMART MANUFACTURING MARKET IN NORTH AMERICA, 2017–2025 (USD BILLION)

FIGURE 62 IMPACT OF COVID-19 ON SMART MANUFACTURING MARKET IN EUROPE

TABLE 166 PRE- AND POST-COVID-19 ANALYSIS FOR SMART MANUFACTURING MARKET IN EUROPE, 2017–2025 (USD BILLION)

FIGURE 63 IMPACT OF COVID-19 ON SMART MANUFACTURING MARKET IN APAC

TABLE 167 PRE- AND POST-COVID-19 ANALYSIS FOR SMART MANUFACTURING MARKET IN APAC, 2017–2025 (USD BILLION)

FIGURE 64 IMPACT OF COVID-19 ON SMART MANUFACTURING MARKET IN ROW

TABLE 168 PRE- AND POST-COVID-19 ANALYSIS FOR SMART MANUFACTURING MARKET IN ROW, 2017–2025 (USD BILLION)

14.5 INDUSTRIAL ROBOTICS MARKET

FIGURE 65 TRADITIONAL INDUSTRIAL ROBOTS MARKET TO DECLINE CONSIDERABLY DURING 2019–2020 OWING TO COVID-19 PANDEMIC

FIGURE 66 ROBOTICS ECOSYSTEM

TABLE 169 ARTICULATED ROBOTS MARKET, BY PRE- AND POST-COVID-19 SCENARIO, 2018–2025 (USD BILLION)

FIGURE 67 PRE- AND POST-COVID-19 ESTIMATES FOR ARTICULATED ROBOTS MARKET

TABLE 170 SCARA ROBOTS MARKET, BY PRE- AND POST-COVID-19 SCENARIO, 2018–2025 (USD BILLION)

FIGURE 68 PRE- AND POST-COVID-19 ESTIMATES FOR SCARA ROBOTS MARKET

TABLE 171 PARALLEL ROBOTS MARKET, BY PRE- AND POST-COVID-19 SCENARIO, 2018–2025 (USD BILLION)

FIGURE 69 PRE- AND POST-COVID-19 ESTIMATES FOR PARALLEL ROBOTS MARKET

TABLE 172 CARTESIAN ROBOTS MARKET, BY PRE- AND POST-COVID-19 SCENARIO, 2018–2025 (USD BILLION)

FIGURE 70 PRE- AND POST-COVID-19 ESTIMATES FOR CARTESIAN ROBOTS MARKET

FIGURE 71 IMPACT OF COVID-19 ON TRADITIONAL INDUSTRIAL ROBOTS MARKET FOR AUTOMOTIVE INDUSTRY

FIGURE 72 IMPACT OF COVID-19 ON TRADITIONAL INDUSTRIAL ROBOTS MARKET FOR ELECTRICAL AND ELECTRONICS INDUSTRY

FIGURE 73 IMPACT OF COVID-19 ON TRADITIONAL INDUSTRIAL ROBOTS MARKET FOR CHEMICALS, RUBBER, AND PLASTICS INDUSTRY

FIGURE 74 IMPACT OF COVID-19 ON TRADITIONAL INDUSTRIAL ROBOTS MARKET FOR FOOD & BEVERAGES INDUSTRY

FIGURE 75 IMPACT OF COVID-19 ON TRADITIONAL INDUSTRIAL ROBOTS MARKET FOR PRECISION ENGINEERING AND OPTICS INDUSTRY

FIGURE 76 IMPACT OF COVID-19 ON TRADITIONAL INDUSTRIAL ROBOTS MARKET FOR PHARMACEUTICALS AND COSMETICS INDUSTRY

TABLE 173 GLOBAL TRADITIONAL INDUSTRIAL ROBOTS MARKET, BY PRE- AND POST-COVID-19 SCENARIO, 2018–2025 (USD BILLION)

FIGURE 77 IMPACT OF COVID-19 ON GLOBAL TRADITIONAL INDUSTRIAL ROBOTS MARKET

TABLE 174 TRADITIONAL INDUSTRIAL ROBOTS MARKET IN NORTH AMERICA, BY PRE- AND POST-COVID-19 SCENARIO, 2018–2025 (USD BILLION)

FIGURE 78 IMPACT OF COVID-19 ON TRADITIONAL INDUSTRIAL ROBOTS MARKET IN NORTH AMERICA

TABLE 175 TRADITIONAL INDUSTRIAL ROBOTS MARKET IN EUROPE, BY PRE- AND POST-COVID-19 SCENARIO, 2018–2025 (USD BILLION)

FIGURE 79 IMPACT OF COVID-19 ON TRADITIONAL INDUSTRIAL ROBOTS MARKET IN EUROPE

TABLE 176 TRADITIONAL INDUSTRIAL ROBOTS MARKET IN APAC, BY PRE- AND POST-COVID-19 SCENARIO, 2018–2025 (USD BILLION)

FIGURE 80 IMPACT OF COVID-19 ON TRADITIONAL INDUSTRIAL ROBOTS MARKET IN APAC

TABLE 177 TRADITIONAL INDUSTRIAL ROBOTS MARKET IN ROW, BY PRE- AND POST-COVID-19 SCENARIO, 2018–2025 (USD MILLION)

FIGURE 81 IMPACT OF COVID-19 ON TRADITIONAL INDUSTRIAL ROBOTS MARKET IN ROW

14.6 3D SENSOR MARKET

TABLE 178 3D SENSORS MARKET, BY TYPE, 2017—2025 (USD MILLION)

FIGURE 82 CONSUMER ELECTRONICS EXPECTED TO BE THE LARGEST

MARKET FOR 3D IMAGE SENSORS DURING THE FORECAST PERIOD

TABLE 179 3D SENSORS MARKET, BY TECHNOLOGY, 2017—2025 (USD MILLION)

FIGURE 83 TIME-OF-FLIGHT TECHNOLOGY EXPECTED TO LEAD THE 3D SENSORS MARKET DURING THE FORECAST PERIOD

TABLE 180 3D SENSORS MARKET FOR CONSUMER ELECTRONICS, BY APPLICATION, 2017—2025 (USD MILLION)

TABLE 181 3D SENSORS MARKET, BY REGION, 2017—2025 (USD MILLION)

FIGURE 84 3D SENSORS MARKET IN APAC EXPECTED TO GROW AT THE HIGHEST CAGR DURING THE FORECAST PERIOD

15 APPENDIX

15.1 INSIGHTS OF INDUSTRY EXPERTS

15.2 DISCUSSION GUIDE

15.3 KNOWLEDGE STORE: MARKET SAND MARKETS' SUBSCRIPTION PORTAL

15.4 AVAILABLE CUSTOMIZATIONS

15.5 RELATED REPORT

15.6 AUTHOR DETAILS

I would like to order

Product name: 3D Machine Vision Market with COVID-19 impact Analysis by Offering (Hardware and Software), Product (PC-based and Smart Camera-based), Application, Vertical (Industrial and Non-Industrial) & Geography - Global Forecast till 2025

Product link: <https://marketpublishers.com/r/3AA5935D320EN.html>

Price: US\$ 4,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/3AA5935D320EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970