

# **Drone Inspection and Monitoring Market by Solution (Platform, Software, Infrastructure And Service), Type (Fixed Wing, Multirotor, Hybrid), Applications (Constructions & Infrastructure, Agriculture), Mode Of Operations & Region - Global Forecast to 2027**

<https://marketpublishers.com/r/D58B74E5F54EEN.html>

Date: February 2023

Pages: 330

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

ID: D58B74E5F54EEN

## **Abstracts**

The drone inspection and monitoring market is projected to grow from USD 10.5 Billion in 2022 to USD 21.3 Billion by 2027, at a CAGR of 15.1% from 2022 to 2027. Increasing demand for safe and accurate inspection & monitoring to drive the market growth during the forecast period.

Drones for inspection and monitoring have been increasingly used by various industries, such as logistics, mining, agriculture, real estate, oil & gas due to their cost-effective, timeless and data acquisition benefits. The conventional data acquisition and inspection methods are constrained by safety and time, often resulting in a shortage of detailed information for evaluation and monitoring. Extraordinary time efficiency, cost-effectiveness and high precision make drones a reliable data acquisition solution that can offer accurate results and synchronous monitoring for various end-use industry applications. The effective monitoring area of drones is nearly 100–10,000 m<sup>2</sup>, and the corresponding error is about 2–20 cm.

Drones showcase significant potential in mining inspection and monitoring application at medium or large scales. Drones equipped with different payloads such as camera or sensor depending on application need. Such payloads gathered basic data which can help to perform various monitoring operations and, hence, are largely used in various applications, including ecological restoration assessment, pollution monitoring, land damage calculation, ecological & geological hazards monitoring, land reclamation activities, and terrain surveying and 3D modeling. Some of the popular drones currently

available in the market for inspection and monitoring are DJI Matrice 300 RTK, DJI Matrice 210 v2, Flyability Elios 2, AceCore Zoe, DJI M600 containing PhaseOne imaging technology, DJI Mavic Enterprise, and Parrot Anafi.

In 2020, as per the National Safety council, construction sites had face high risks due to the human intervention in inspection process. So now, after the use of drone LiDAR to inspect fill levels, the risk has been reduced.

Based on application, construction & infrastructure to witness high growth during 2022–2027

Based on application, the drone inspection and monitoring market has been segmented into construction & infrastructure, agriculture, oil & gas, utilities, mining, and others. Among these construction & infrastructure is expected to grow at higher CAGR during the forecast period. Drone inspections utilize ultra-high-resolution image capture devices, jointly with technologies such as LiDAR and thermal imaging, to accumulate thorough data of bridges, property and real estate, and railways on a single flight. This data helps firms undertake a complete evaluation of their asset's condition quite quickly. Assets can then be linked against their proposed lifecycle, and data from earlier inspections determined if remedial or preventative maintenance is needed. This can add many years of life to a critical asset and prevent the excessive capital expenditure of replacing a component before its valuable life ends. This acceptance of technology is driven chiefly by remarkable technological developments in drone hardware in terms of size and endurance, the sensor equipment that drones can bear, and major software improvements. The US has a high budget for infrastructure revamping and, thus, is a potential market for drone inspection and monitoring. For instance, during his presidency, Donald Trump campaigned for 1 trillion dollars to revamp highways, bridges, tunnels, etc., which increased the adoption of drones for construction & infrastructure inspection and monitoring application.

The North America region dominated the market with largest share in 2022

North America is estimated to account for largest share in 2022. With the increased use of drones for asset monitoring and oil and gas applications, their procurement is expected to contribute to the growth of the drone inspection and monitoring market in this region. The US and Canada are increasingly investing in the development of drones owing to their surging demand for various applications.

Major players in the drone inspection and monitoring market are Intel Corporation (US),

Lockheed Martin Corporation (US), Wipro (India), Intertek Group plc (UK), and MISTRAS Group, Inc. (US). These companies adopted strategies including product and service launches, contracts, partnerships, agreements, and expansions to sustain their position in the market. Also focusing on expanding distribution networks in North America, Europe, Asia Pacific, Middle East and Rest of the World in turn driving the demand for drone inspection and monitoring market.

## Research Coverage

This research report categorizes classified the drone inspection and monitoring market into solution, type, application, mode of operation, distribution channel, and region. The drone inspection and monitoring market has been studied for North America, Europe, Asia Pacific, Middle and Rest of the World.

The scope of the report covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the drone inspection and monitoring market. A detailed analysis of the key industry players has been done to provide insights into their business overviews; solutions and services; key strategies; contracts, joint ventures, partnerships & agreements, acquisitions, and new product launches associated with the drone inspection and monitoring market. Competitive analysis of upcoming startups in the drone inspection and monitoring market ecosystem is covered in this report.

## Reasons to Buy this Report

This report is expected to help market leaders/new entrants with information on the closest approximations of the revenue numbers for the overall drone inspection and monitoring market and its segments. This study is also expected to provide application-wise information about the end-use industrial sectors, wherein fixed-wing, multirotor, and hybrid drones are used for various industry inspection and monitoring. This report aims at helping the stakeholders understand the competitive landscape of the market, gain insights to improve the position of their businesses, and plan suitable go-to-market strategies. This report is also expected to help them understand the pulse of the market and provide them with information on key drivers, restraints, challenges, and opportunities influencing the growth of the market.

The report provides insights on the following pointers:

**Market Penetration:** Comprehensive information on drone inspection and

monitoring system offered by the top players in the market.

**Product Development/Innovation:** Detailed insights on upcoming technologies, research & development activities, and new product and services launches in the drone inspection and monitoring market.

**Market Development:** Comprehensive information about lucrative markets – the report analyzes the drone inspection and monitoring market across varied regions.

**Market Diversification:** Exhaustive information about new products, untapped geographies, recent developments, and investments in the drone inspection and monitoring market

**Competitive Assessment:** In-depth assessment of market shares, growth strategies, products, and manufacturing capabilities of leading players in the drone inspection and monitoring market

## Contents

### 1 INTRODUCTION

#### 1.1 STUDY OBJECTIVES

#### 1.2 MARKET DEFINITION

#### 1.3 MARKET SCOPE

##### 1.3.1 MARKETS COVERED

#### FIGURE 1 DRONE INSPECTION AND MONITORING MARKET SEGMENTATION

##### 1.3.2 YEARS CONSIDERED

##### 1.3.3 REGIONAL SCOPE

#### 1.4 INCLUSIONS AND EXCLUSIONS

#### TABLE 1 DRONE INSPECTION AND MONITORING MARKET: INCLUSIONS AND EXCLUSIONS

#### 1.5 CURRENCY CONSIDERED

#### TABLE 2 USD EXCHANGE RATES

#### 1.6 MARKET STAKEHOLDERS

#### 1.7 LIMITATIONS

#### 1.8 SUMMARY OF CHANGES

### 2 RESEARCH METHODOLOGY

#### 2.1 RESEARCH DATA

#### FIGURE 2 RESEARCH PROCESS FLOW

#### FIGURE 3 DRONE INSPECTION AND MONITORING MARKET: RESEARCH DESIGN

##### 2.1.1 SECONDARY DATA

###### 2.1.1.1 Key data from secondary sources

##### 2.1.2 PRIMARY DATA

###### 2.1.2.1 Key industry insights

###### 2.1.2.2 Key data from primary sources

###### 2.1.2.3 Primary sources

###### 2.1.2.4 Breakdown of primaries

#### FIGURE 4 BREAKDOWN OF PRIMARY INTERVIEWS: BY COMPANY TYPE, DESIGNATION, AND REGION

#### 2.2 RECESSION IMPACT ANALYSIS

##### 2.2.1 DEMAND-SIDE INDICATORS

#### FIGURE 5 GLOBAL DRONE INVESTMENT VALUE (USD MILLION), 2015–2021

##### 2.2.2 SUPPLY-SIDE INDICATORS

#### FIGURE 6 HALF-YEAR RESULT OF TOP FIVE PLAYERS, 2019–2022

## 2.3 FACTOR ANALYSIS

### 2.3.1 INTRODUCTION

### 2.3.2 DEMAND-SIDE INDICATORS

### 2.3.3 SUPPLY-SIDE INDICATORS

## 2.4 MARKET SIZE ESTIMATION

## 2.5 RESEARCH APPROACH AND METHODOLOGY

### 2.5.1 BOTTOM-UP APPROACH

#### 2.5.1.1 Platform market approach

#### 2.5.1.2 Software market approach

#### 2.5.1.3 Infrastructure market approach

#### 2.5.1.4 Services market approach

#### 2.5.1.5 Regional split of drone inspection and monitoring market

### FIGURE 7 MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH

### 2.5.2 TOP-DOWN APPROACH

### FIGURE 8 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH

## 2.6 TRIANGULATION AND VALIDATION

### 2.6.1 TRIANGULATION THROUGH PRIMARY AND SECONDARY RESEARCH

### FIGURE 9 DATA TRIANGULATION

## 2.7 RESEARCH ASSUMPTIONS

### FIGURE 10 ASSUMPTIONS FOR RESEARCH STUDY

#### 2.7.1 ASSUMPTIONS USED IN MARKET SIZING AND FORECAST

## 2.8 LIMITATIONS

## 2.9 RISKS

## 3 EXECUTIVE SUMMARY

FIGURE 11 BY TYPE, HYBRID SEGMENT TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD

FIGURE 12 BY MODE OF OPERATION, OPTIONALLY PILOTED SEGMENT TO LEAD MARKET FROM 2022 TO 2027

FIGURE 13 BY APPLICATION, AGRICULTURE SEGMENT TO ACCOUNT FOR LARGEST MARKET SIZE BY 2027

FIGURE 14 DRONE INSPECTION AND MONITORING MARKET IN ASIA PACIFIC TO REGISTER HIGHEST CAGR FROM 2022 TO 2027

## 4 PREMIUM INSIGHTS

4.1 ATTRACTIVE GROWTH OPPORTUNITIES FOR PLAYERS IN DRONE INSPECTION AND MONITORING MARKET

FIGURE 15 IMPROVEMENT IN REGULATORY FRAMEWORK TO DRIVE MARKET GROWTH FROM 2022 TO 2027

4.2 DRONE INSPECTION AND MONITORING MARKET, BY TYPE

FIGURE 16 BY TYPE, MULTIROTOR SEGMENT EXPECTED TO LEAD DRONE INSPECTION AND MONITORING MARKET FROM 2022 TO 2027

4.3 DRONE INSPECTION AND MONITORING MARKET, BY APPLICATION

FIGURE 17 BY APPLICATION, CONSTRUCTION & INFRASTRUCTURE SEGMENT PROJECTED TO DRIVE MARKET FROM 2022 TO 2027

4.4 DRONE INSPECTION AND MONITORING MARKET, BY MODE OF OPERATION

FIGURE 18 BY MODE OF OPERATION, OPTIONALLY PILOTED DRONE SEGMENT FORECASTED TO ACCOUNT FOR MOST SIGNIFICANT MARKET SHARE FROM 2022 TO 2027

4.5 DRONE INSPECTION AND MONITORING MARKET, BY SOLUTION

FIGURE 19 BY SOLUTION, SERVICES SEGMENT FORECASTED TO LEAD MARKET FROM 2022 TO 2027

4.6 DRONE INSPECTION AND MONITORING MARKET, BY DISTRIBUTION CHANNEL

FIGURE 20 BY DISTRIBUTION CHANNEL, OFFLINE SEGMENT ESTIMATED TO BOOST MARKET FROM 2022 TO 2027

4.7 DRONE INSPECTION AND MONITORING MARKET, BY REGION

FIGURE 21 NORTH AMERICA ESTIMATED TO LEAD MARKET IN 2022

## **5 MARKET OVERVIEW**

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

FIGURE 22 DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES IN DRONE INSPECTION AND MONITORING MARKET

5.2.1 DRIVERS

5.2.1.1 Increase in demand for safe and accurate inspection & monitoring

5.2.1.2 Increased cost-saving and human safety

5.2.1.3 Rise in usage of drones as remote visual inspection (RVI) tools for critical infrastructure applications

TABLE 3 COST COMPARISON: DRONE VS. UNDER-BRIDGE INSPECTION VEHICLES

5.2.2 RESTRAINTS

5.2.2.1 Lack of skilled personnel to operate drones for inspection & monitoring applications

5.2.2.2 Issues with drone safety and security

### 5.2.3 OPPORTUNITIES

5.2.3.1 Technology advancements in drones

5.2.3.2 Advancements in LiDAR technology for commercial drones

### 5.2.4 CHALLENGES

5.2.4.1 Regulatory hurdles and budgetary & other constraints

5.2.4.2 Limited flight endurance & payload capacity

### 5.3 AVERAGE SELLING PRICE

TABLE 4 AVERAGE SELLING PRICE OF DRONES, BY APPLICATION

### 5.4 VALUE CHAIN ANALYSIS

FIGURE 23 VALUE CHAIN: DRONE INSPECTION AND MONITORING MARKET

### 5.5 MARKET ECOSYSTEM MAP

FIGURE 24 DRONE INSPECTION AND MONITORING MARKET ECOSYSTEM MAP

### 5.6 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS

5.6.1 REVENUE SHIFT AND NEW REVENUE POCKETS FOR DRONE INSPECTION AND MONITORING MARKET

FIGURE 25 REVENUE SHIFT CURVE FOR DRONE INSPECTION AND MONITORING MARKET

### 5.7 PORTER'S FIVE FORCES ANALYSIS

FIGURE 26 PORTER'S FIVE FORCES ANALYSIS FOR DRONE INSPECTION AND MONITORING MARKET

5.7.1 THREAT OF NEW ENTRANTS

5.7.2 THREAT OF SUBSTITUTES

5.7.3 BARGAINING POWER OF SUPPLIERS

5.7.4 BARGAINING POWER OF BUYERS

5.7.5 INTENSITY OF COMPETITIVE RIVALRY

### 5.8 TRADE DATA STATISTICS

TABLE 5 LIST OF IMPORTERS FOR PRODUCT: 880211 HELICOPTERS OF AN UNLADEN WEIGHT



## I would like to order

Product name: Drone Inspection and Monitoring Market by Solution (Platform, Software, Infrastructure And Service), Type (Fixed Wing, Multirotor, Hybrid), Applications (Constructions & Infrastructure, Agriculture), Mode Of Operations & Region - Global Forecast to 2027

Product link: <https://marketpublishers.com/r/D58B74E5F54EEN.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](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/D58B74E5F54EEN.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