

# **Military Robots Market by Type (Wheeled, Tracked, Legged, USV, AUV, ROV, Small UAV, Tactical UAV, Strategic UAV), Operational Technology, Propulsion, Application, System, Range, End Use and Region-Global Forecast to 2029**

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## **Abstracts**

The Military robots market is projected to reach USD 26.49 billion by 2029, from USD 18.20 billion in 2024, at a CAGR of 7.8%. The increased demand for autonomous systems, adoption of UUVs for mine countermeasures, and increased use of UAVs as loitering munition in the defense sector is driving the Military robots market, supported by the increasing military expenditure globally but, the lack of skilled and trained operators is creating challenges to the market. Various opportunities in the market include Technological Advancements in Drone Payloads and full-scale Conversion of Drones for the Simulation of War Scenarios.

Innovations in artificial intelligence (AI) and machine learning are enhancing the autonomy of military robots, allowing them to perform complex missions such as target identification, path navigation, and decision-making with minimal human intervention. Advancements in sensor technologies and data fusion have improved situational awareness, enabling real-time intelligence, surveillance, and reconnaissance (ISR) capabilities. Additionally, the development of swarming technology allows multiple robots to operate collaboratively, enhancing mission efficiency in combat and reconnaissance operations. Improvements in power and energy systems, including hybrid propulsion and advanced batteries, are increasing operational endurance and reducing energy dependency. Integration of cybersecurity solutions ensures the protection of communication links and critical data from cyber threats.

“Based on the type, the marine robots segment is forecasted to grow at the highest

## CAGR”

Based on type, the marine robot segment is expected to grow at the highest CAGR in the military robots market due to increasing demand for underwater surveillance, mine countermeasures, and anti-submarine warfare capabilities. With growing geopolitical tensions and the strategic importance of securing maritime borders and critical sea routes, naval forces are investing heavily in Unmanned Marine Vehicles (UMVs) for enhanced operational efficiency and reduced risks to personnel. Advancements in autonomous technologies, sensor integration, and underwater communication systems are enabling marine robots to perform complex missions such as reconnaissance, intelligence gathering, and underwater mapping with greater accuracy and endurance. Additionally, the rise in naval modernization programs and the need to address asymmetric threats like underwater mines and enemy submarines are further driving the adoption of marine robots. Their ability to operate autonomously in challenging underwater environments makes them a vital asset, fueling their rapid growth in the military robots market.

“Based on end user, the defense segment is estimated to capture the largest share in the market during the forecast period”

Based on end users, the defense segment is leading the military robots market with the highest market size due to the increasing need for advanced autonomous systems to enhance operational efficiency, reduce human risk, and strengthen combat capabilities. Military forces across the globe are prioritizing the adoption of robotic systems for a wide range of applications, including intelligence, surveillance, reconnaissance (ISR), explosive ordnance disposal (EOD), logistics support, and combat operations. Rising defense budgets, coupled with growing geopolitical tensions, have accelerated investments in cutting-edge technologies such as artificial intelligence, machine learning, and autonomous navigation to improve the capabilities of military robots. Additionally, the demand for unmanned systems to perform critical tasks in hazardous and contested environments, where human intervention is risky, has further fueled the dominance of the defense segment. The integration of military robots into modern defense strategies ensures enhanced mission effectiveness, cost savings, and minimized casualties, contributing to the segment's higher market share.

“ The North American region is to have the largest share during the forecast period”

The market for military robots is dominated by North America due to the US's large defense expenditure. The United States makes significant investments in all forms of

military robotics, including airborne, marine, and terrestrial robots. The adoption of new technology, such as autonomous navigation, artificial intelligence, and advanced sensors—all essential for military robots—is facilitated by this military expenditure. Large defense companies like Lockheed Martin (US), Northrop Grumman (US), and General Dynamics (US) are based in North America and support the continent's unmanned systems sector by innovating and dominating the market with high-end solutions. The region's technical prospects are aided by strong R&D skills supported by efforts from organizations like DARPA. Additionally, the US military's needs for border security, counterterrorism, and geopolitical stability continue to be major motivators for the use of UAVs, UGVs, and maritime robots in their defensive capabilities.

In-depth interviews have been conducted with chief executive officers (CEOs), Directors, and other executives from various key organizations operating in the military robots marketplace.

By Company Type: Tier 1 – 35%, Tier 2 – 45%, and Tier 3 – 20%

By Designation: C-level – 35%, Director Level – 25%, and Others – 40%

By Region: North America– 30%, Europe – 20%, Asia Pacific– 35%, Middle East & Africa– 10%, and Latin America– 5%

Northrop Grumman (US), Boeing (US), Lockheed Martin Corporation (US), Elbit Systems (Israel), Teledyne Technologies Incorporated (US), General Dynamics Corporation (US), BAE Systems (UK), Thales (France), L3harris Technologies Inc. (US), and Leonardo S.p.A (Italy) are some of the leading players operating in the military robots market.

## Research Coverage

This research report categorizes the Military robots market by type (Land Robots, Marine Robots, and Airborne Robots), End User (Defense, and Government & Law Enforcement), Propulsion (Electric, Mechanical, Hybrid), Operational Technology, Application, System, Deployment Method, Range, End Use and by Region (North America, Europe, Asia Pacific, Middle East & Africa and Latin America). The scope of the report covers detailed information regarding the major factors, such as drivers,

restraints, challenges, and opportunities, influencing the growth of the military robots market. A detailed analysis of the key industry players has been done to provide insights into their business overview, products, and services; key strategies; Contracts, partnerships, agreements, new product launches, and recent developments associated with the military robots market. Competitive analysis of upcoming startups in the military robots market ecosystem is covered in this report.

**Key benefits of buying this report:** This report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall military robots market and its subsegments. The report covers the entire ecosystem of the military robots market. It will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report will also help stakeholders understand the pulse of the market and provide them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key Drivers (Growing demand for autonomous systems in the defense sector, Increasing use of robots in areas affected by chemical, biological, radiological, and nuclear (CBRN) attacks, Improving intelligence, surveillance, reconnaissance, and target acquisition capabilities of defense forces, Increasing adoption of UUVs for mine countermeasures, Increasing use of UAVs in life-threatening military missions, Increasing use of UAVs as loitering munition), Restraints (Requirement for developing sophisticated and highly reliable UGVs, Limited Advanced Visual Capabilities in UGVs, Low Reliability of UUVs), Opportunities (Increased defense budgets of different countries, Technological Advancements in Drone Payloads in the Military Robots Market, Full-Scale Conversion of Drones for Simulation of War Scenarios) and Challenges (Lack of Skilled and Trained Operators and

requirement for continuous and uninterrupted power supply in UGVs) influencing the growth of the market.

**Product Development/Innovation:** Detailed Insights on upcoming technologies, R&D activities, and new products/solutions launched in the market.

**Market Development:** Comprehensive information about lucrative markets – the report analyses the military robots market across varied regions

**Market Diversification:** Exhaustive information about new solutions, recent developments, and investments in the military robots market

**Competitive Assessment:** In-depth assessment of market shares, growth strategies, and service offerings of leading players including Northrop Grumman (US), Boeing (US), Lockheed Martin Corporation (US), Elbit Systems (US), and Teledyne Technologies Incorporated (US) among others in the military robots market.

## Contents

### 1 INTRODUCTION

#### 1.1 STUDY OBJECTIVES

#### 1.2 MARKET DEFINITION

#### 1.3 MARKET SCOPE

##### 1.3.1 MILITARY ROBOTS MARKET SEGMENTATION AND GEOGRAPHICAL SPREAD

##### 1.3.2 YEARS CONSIDERED

#### 1.4 CURRENCY & PRICING

#### 1.5 INCLUSIONS AND EXCLUSIONS

#### 1.6 STAKEHOLDERS

#### 1.7 SUMMARY OF CHANGES

### 2 RESEARCH METHODOLOGY

#### 2.1 RESEARCH DATA

##### 2.1.1 SECONDARY DATA

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

##### 2.1.2 PRIMARY DATA

###### 2.1.2.1 Primary insights

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

#### 2.2 FACTOR ANALYSIS

##### 2.2.1 INTRODUCTION

##### 2.2.2 DEMAND-SIDE INDICATORS

##### 2.2.3 SUPPLY-SIDE INDICATORS

#### 2.3 RUSSIA-UKRAINE WAR IMPACT ANALYSIS

##### 2.3.1 IMPACT OF RUSSIA'S INVASION OF UKRAINE ON DEFENSE INDUSTRY'S MACRO FACTORS

##### 2.3.2 IMPACT OF RUSSIA-UKRAINE WAR ON MICRO FACTORS OF MILITARY ROBOTS MARKET

###### 2.3.2.1 R&D investment

###### 2.3.2.2 Procurement

###### 2.3.2.3 Import/Export control

#### 2.4 MARKET SIZE ESTIMATION

##### 2.4.1 BOTTOM-UP APPROACH

##### 2.4.2 MARKET SIZE ESTIMATION AND METHODOLOGY FOR LAND ROBOTS

##### 2.4.3 MARKET SIZE ESTIMATION AND METHODOLOGY FOR MARINE ROBOTS

## 2.4.4 MARKET SIZE ESTIMATION AND METHODOLOGY FOR AIRBORNE ROBOTS

### 2.4.5 TOP-DOWN APPROACH

## 2.5 DATA TRIANGULATION

## 2.6 RESEARCH ASSUMPTIONS

## 2.7 RESEARCH LIMITATIONS

## 2.8 RISK ANALYSIS

# 3 EXECUTIVE SUMMARY

# 4 PREMIUM INSIGHTS

## 4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN MILITARY ROBOTS MARKET

## 4.2 MILITARY ROBOTS MARKET, BY TYPE

## 4.3 MILITARY ROBOTS MARKET, BY PROPULSION

## 4.4 MILITARY ROBOTS MARKET, BY LAND ROBOT TYPE

## 4.5 MILITARY ROBOTS MARKET, BY END USER

# 5 MARKET OVERVIEW

## 5.1 INTRODUCTION

## 5.2 MARKET DYNAMICS

### 5.2.1 DRIVERS

#### 5.2.1.1 Land

5.2.1.1.1 Increasing use of robots in areas affected by chemical, biological, radiological, and nuclear attacks

5.2.1.1.2 Growing demand for autonomous systems in defense industry

5.2.1.1.3 Developing smart robots to carry out combat operations

5.2.1.1.4 Improving intelligence, surveillance, reconnaissance, and target acquisition capabilities of defense forces

#### 5.2.1.2 Marine

5.2.1.2.1 Increasing adoption of unmanned maritime vehicles for mine countermeasures

5.2.1.2.2 Maritime security and threats

#### 5.2.1.3 Airborne

5.2.1.3.1 Increasing use of unmanned aerial vehicles in life-threatening military missions

5.2.1.3.2 Increasing use of modern warfare techniques by defense forces

5.2.1.3.3 Increasing use of UAVs as loitering munitions



5.2.1.3.4 Increasing use of UAVs in advanced patrolling of marine borders

5.2.1.3.5 Growing use of UAVs for counter-terrorism

## 5.2.2 RESTRAINTS

### 5.2.2.1 Land

5.2.2.1.1 Requirement for developing sophisticated and highly reliable unmanned ground vehicles

5.2.2.1.2 Limited advanced visual capabilities in unmanned ground vehicles

### 5.2.2.2 Marine

5.2.2.2.1 Low reliability of unmanned underwater vehicles

### 5.2.2.3 Airborne

5.2.2.3.1 Lack of skilled and trained operators

## 5.2.3 OPPORTUNITIES

### 5.2.3.1 Land

5.2.3.1.1 Increasing defense budgets by various countries

5.2.3.1.2 Development of fully autonomous unmanned ground vehicles

### 5.2.3.2 Marine

5.2.3.2.1 Advancements in underwater robotics technology

### 5.2.3.3 Airborne

5.2.3.3.1 Technological advancements in drone payloads

5.2.3.3.2 Full-scale conversion of drones for simulation of war scenarios

## 5.2.4 CHALLENGES

### 5.2.4.1 Land

5.2.4.1.1 Autonomy and decision-making

5.2.4.1.2 Battery life and power management

### 5.2.4.2 Marine

5.2.4.2.1 Communication limitations for marine robots

### 5.2.4.3 Airborne

5.2.4.3.1 Defining secure identification

5.2.4.3.2 Lack of sustainable power sources to improve drone endurance

## 5.3 OPERATIONAL DATA

## 5.4 TRENDS AND DISRUPTIONS IMPACTING CUSTOMER BUSINESS

## 5.5 VALUE CHAIN ANALYSIS

### 5.5.1 RESEARCH & DEVELOPMENT

### 5.5.2 RAW MATERIAL

### 5.5.3 MANUFACTURING

### 5.5.4 ASSEMBLY AND INTEGRATION

### 5.5.5 END USER

## 5.6 ECOSYSTEM ANALYSIS

### 5.6.1 PROMINENT COMPANIES



- 5.6.2 PRIVATE AND SMALL ENTERPRISES
- 5.6.3 END USERS
- 5.7 PRICING ANALYSIS
  - 5.7.1 INDICATIVE PRICING ANALYSIS, BY TYPE
  - 5.7.2 INDICATIVE PRICING ANALYSIS, BY END USER
- 5.8 CASE STUDY ANALYSIS
  - 5.8.1 ENHANCING WARFIGHTER MOBILITY: DEVELOPMENT OF LEGGED SQUAD SUPPORT SYSTEM (LS3) BY DARPA
  - 5.8.2 ADVANCING MILITARY OPERATIONS WITH AUTONOMOUS GROUND VEHICLES: THEMIS AND TALON SWORDS SOLUTIONS
  - 5.8.3 ENHANCING MINE COUNTERMEASURE CAPABILITIES FOR US NAVY: KNIFEFISH UUV BY BLUEFIN ROBOTICS
  - 5.8.4 ENHANCING MARITIME COUNTER-TRAFFICKING OPERATIONS WITH AEROVIRONMENT'S UAS
- 5.9 REGULATORY LANDSCAPE
  - 5.9.1 NORTH AMERICA
  - 5.9.2 EUROPE
  - 5.9.3 ASIA PACIFIC
  - 5.9.4 MIDDLE EAST & AFRICA
  - 5.9.5 LATIN AMERICA
- 5.10 TRADE DATA
  - 5.10.1 IMPORT SCENARIO
  - 5.10.2 EXPORT SCENARIO
- 5.11 TECHNOLOGY ANALYSIS
  - 5.11.1 KEY TECHNOLOGIES
    - 5.11.1.1 LiDAR
    - 5.11.1.2 Advanced navigation systems
  - 5.11.2 COMPLEMENTARY TECHNOLOGIES
    - 5.11.2.1 Electro-optical and radar sensor payloads
  - 5.11.3 ADJACENT TECHNOLOGIES
    - 5.11.3.1 Exoskeleton technology
- 5.12 KEY STAKEHOLDERS AND BUYING CRITERIA
  - 5.12.1 KEY STAKEHOLDERS IN BUYING PROCESS
  - 5.12.2 BUYING CRITERIA
- 5.13 KEY CONFERENCES AND EVENTS, 2025–2026
- 5.14 BILL OF MATERIALS
  - 5.14.1 BILL OF MATERIALS FOR AIRBORNE ROBOT COMPONENTS
  - 5.14.2 BILL OF MATERIALS FOR LAND ROBOT COMPONENTS
  - 5.14.3 BILL OF MATERIALS FOR MARINE ROBOT COMPONENTS

## 5.15 BUSINESS MODELS

### 5.15.1 BUSINESS MODELS IN AIRBORNE MILITARY ROBOTS MARKET

#### 5.15.1.1 Direct sales model

#### 5.15.1.2 Operating lease model

### 5.15.2 BUSINESS MODELS IN LAND-BASED MILITARY ROBOTS MARKET

#### 5.15.2.1 Equipment sales and leasing model

#### 5.15.2.2 Customized solutions model

### 5.15.3 BUSINESS MODELS IN MARINE MILITARY ROBOTS MARKET

#### 5.15.3.1 Product-based sales model

#### 5.15.3.2 Leasing and rental model

## 5.16 TOTAL COST OF OWNERSHIP

### 5.16.1 TOTAL COST OF OWNERSHIP FOR AIRBORNE ROBOTS

### 5.16.2 TOTAL COST OF OWNERSHIP OF LAND ROBOTS

### 5.16.3 TOTAL COST OF OWNERSHIP OF MARINE ROBOTS

## 5.17 TECHNOLOGY ROADMAP

### 5.17.1 EMERGING TRENDS IN MILITARY ROBOTS MARKET

## 5.18 IMPACT OF ARTIFICIAL INTELLIGENCE

### 5.18.1 INTRODUCTION

### 5.18.2 IMPACT OF ARTIFICIAL INTELLIGENCE ON DEFENSE INDUSTRY

### 5.18.3 ADOPTION OF ARTIFICIAL INTELLIGENCE IN MILITARY, BY TOP

## COUNTRIES

### 5.18.4 IMPACT OF ARTIFICIAL INTELLIGENCE ON MILITARY ROBOTS MARKET

## 5.19 MACROECONOMIC OUTLOOK

### 5.19.1 INTRODUCTION

### 5.19.2 NORTH AMERICA

### 5.19.3 EUROPE

### 5.19.4 ASIA PACIFIC

### 5.19.5 MIDDLE EAST

### 5.19.6 LATIN AMERICA

### 5.19.7 AFRICA

## 5.20 INVESTMENT AND FUNDING SCENARIO

# 6 INDUSTRY TRENDS

## 6.1 INTRODUCTION

## 6.2 TECHNOLOGY TRENDS

### 6.2.1 SWARM OPERATION

### 6.2.2 HUMAN-ROBOT INTERACTION

### 6.2.3 ADVANCED SENSOR

#### 6.2.4 ADVANCED COMMUNICATIONS SYSTEMS

### 6.3 IMPACT OF MEGA TRENDS

#### 6.3.1 ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

#### 6.3.2 ADVANCED MATERIALS AND MANUFACTURING

#### 6.3.3 BIG DATA ANALYTICS

### 6.4 SUPPLY CHAIN ANALYSIS

### 6.5 PATENT ANALYSIS

## 7 DEPLOYMENT METHOD FOR MILITARY ROBOTS

### 7.1 INTRODUCTION

### 7.2 LAND ROBOTS

#### 7.2.1 GROUND DEPLOYMENT

##### 7.2.1.1 Advantages

##### 7.2.1.2 Limitations

7.2.1.3 Use case: FirstLook enhancing mission safety and efficiency with Teledyne FLIR defense ground robots

#### 7.2.2 HAND-TOSSSED DEPLOYMENT

##### 7.2.2.1 Advantages

##### 7.2.2.2 Limitations

7.2.2.3 Use case: Enhancing mine clearance operations with MV-4 vehicles in Ukraine

#### 7.2.3 AIR DEPLOYMENT

##### 7.2.3.1 Advantages

##### 7.2.3.2 Limitations

##### 7.2.3.3 Use case: Air-deployed UGVs for defense missions

### 7.3 MARINE ROBOTS

#### 7.3.1 SURFACE DEPLOYMENT

##### 7.3.1.1 Advantages

##### 7.3.1.2 Limitations

##### 7.3.1.3 Use case: Taiwan's deployment of Huilong UUV via Torpedo Launch Tube

#### 7.3.2 TUBE-LAUNCHED DEPLOYMENT

##### 7.3.2.1 Advantages

##### 7.3.2.2 Limitations

##### 7.3.2.3 Use case: BlueWhale autonomous submarine for NATO's maritime security

#### 7.3.3 AIR DEPLOYMENT

##### 7.3.3.1 Advantages

##### 7.3.3.2 Limitations

##### 7.3.3.3 Use Case: US Navy tests air deployment of underwater glider

## 7.4 AIRBORNE ROBOTS

### 7.4.1 RUNWAY TAKEOFF

#### 7.4.1.1 Advantages

#### 7.4.1.2 Limitations

7.4.1.3 Use case: Enhancing reconnaissance in high-altitude border areas with Heron MALE

### 7.4.2 CATAPULT LAUNCHED

#### 7.4.2.1 Advantages

#### 7.4.2.2 Limitations

7.4.2.3 Use case: Catapult-launched ScanEagle UAV enhancing maritime surveillance

### 7.4.3 HAND LAUNCHED

#### 7.4.3.1 Advantages

#### 7.4.3.2 Limitations

7.4.3.3 Use case: Deploying hand-launched RQ-11 Raven drones for tactical surveillance

### 7.4.4 AIR DEPLOYMENT

#### 7.4.4.1 Advantages

#### 7.4.4.2 Limitation

#### 7.4.4.3 Use case: Phoenix Ghost drones used by Ukraine

## 8 MILITARY ROBOTS MARKET, BY TYPE

### 8.1 INTRODUCTION

### 8.2 LAND ROBOTS

#### 8.2.1 WHEELED

##### 8.2.1.1 Highly effective in diverse terrains

8.2.1.2 Use case: Ukraine's Ironclad wheeled robot enhances tactical capabilities in modern warfare

#### 8.2.2 LEGGED

##### 8.2.2.1 Ability to operate in high-risk environments to drive demand

8.2.2.2 Use case: Indian Army inducts robotic MULEs to enhance logistical support in challenging terrain

#### 8.2.3 TRACKED

##### 8.2.3.1 Ability to operate in unpredictable terrains to drive demand

8.2.3.2 Use case: Viking enhancing military operations with multi-role capabilities for UK Ministry of Defence

### 8.3 MARINE ROBOTS

#### 8.3.1 UNMANNED SURFACE VEHICLES

8.3.1.1 Ability to conduct high-risk maritime operations to drive market

8.3.1.2 Use case: MANTAS T-12 USVs for surveillance, swarming operations, and electronic warfare

#### 8.3.2 AUTONOMOUS UNDERWATER VEHICLES

8.3.2.1 Increasing need for underwater reconnaissance missions to drive demand

8.3.2.2 Use Case: US Navy Orca Extra Large Unmanned Underwater Vehicle (XLUUV) offers long-range, autonomous operations for critical missions

#### 8.3.3 REMOTELY OPERATED VEHICLES

8.3.3.1 Increasing mine countermeasures and anti-submarine warfare to drive demand

8.3.3.2 Use case: Deep Trekker's underwater ROV for US military operations

### 8.4 AIRBORNE ROBOTS

#### 8.4.1 SMALL UAV

8.4.1.1 Supports covert surveillance and reconnaissance missions

8.4.1.2 Use case: AeroVironment's UAS for maritime counter-trafficking operations

#### 8.4.2 TACTICAL UAV

8.4.2.1 Increasing demand for tactical drones that can be hand-launched to drive market

8.4.2.2 Use case: Integration of UAVs in Israel's military operations

#### 8.4.3 STRATEGIC UAV

8.4.3.1 Increasing need for operational superiority to drive demand

8.4.3.2 Use case: Counter-terrorism operations with MQ-9 Reaper

## 9 MILITARY ROBOTS MARKET, BY APPLICATION

### 9.1 INTRODUCTION

#### 9.2 LAND

9.2.1 EXPLOSIVE ORDNANCE DISPOSAL TO BE LEADING SEGMENT OF LAND APPLICATION

9.2.2 INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE

9.2.3 SEARCH AND RESCUE

9.2.4 COMBAT SUPPORT

9.2.5 TRANSPORTATION

9.2.6 EXPLOSIVE ORDNANCE DISPOSAL

9.2.7 MINE CLEARANCE

9.2.8 FIREFIGHTING

9.2.9 OTHERS

#### 9.3 MARINE

9.3.1 ABILITY OF MILITARY ROBOTS TO ENHANCE OPERATIONAL EFFICIENCY

## TO DRIVE MARKET

9.3.2 INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE

9.3.3 SEARCH AND RESCUE

9.3.4 COMBAT SUPPORT

9.3.5 MINE CLEARANCE

9.3.6 SECURITY, DETECTION, AND INSPECTION

9.3.7 OTHERS

## 9.4 AIRBORNE

9.4.1 AIRBORNE MILITARY ROBOTS- INTEGRAL TO MODERN MILITARY OPERATIONS

9.4.2 INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE

9.4.3 COMBAT

9.4.4 DELIVERY

## 10 MILITARY ROBOTS MARKET, BY END USER

### 10.1 INTRODUCTION

### 10.2 DEFENSE

#### 10.2.1 ARMY

10.2.1.1 Focus on modernizing military capabilities to drive market

#### 10.2.2 NAVY

10.2.2.1 Increasing investments to modernize naval fleets and improve operational readiness to drive market

#### 10.2.3 AIR FORCE

10.2.3.1 Increasing demand for superior situational awareness to drive market

### 10.3 GOVERNMENT AND LAW ENFORCEMENT

10.3.1 GROWING NEED FOR ENHANCED PUBLIC SAFETY AND SECURITY TO DRIVE SEGMENTAL GROWTH

## 11 MILITARY ROBOTS MARKET, BY OPERATIONAL TECHNOLOGY

### 11.1 INTRODUCTION

### 11.2 LAND

#### 11.2.1 TELEOPERATED

11.2.1.1 Technological advancements in wireless communication and remote control systems to drive market

11.2.1.2 Use case: TALON Robot for explosive ordnance disposal

#### 11.2.2 AUTONOMOUS

11.2.2.1 Enhanced operational efficiency and safety to drive market

11.2.2.2 Use case: Multi-utility Tactical Transport (MUTT)- US Army's Supply Chain  
4.0 initiative

## 11.3 MARINE

### 11.3.1 REMOTELY OPERATED

11.3.1.1 Rising need for remote operation for mine countermeasures to drive market

11.3.1.2 Use case: US Navy used remotely operated vehicles for mine  
countermeasures and naval operations in Strait of Hormuz

### 11.3.2 AUTONOMOUS

11.3.2.1 Growing focus on reducing human risk in naval operations to drive market

11.3.2.2 Use case: US Navy planning to adopt autonomous systems for ISR, mine  
countermeasures, and hybrid integration

## 11.4 AIRBORNE

### 11.4.1 TETHERED

11.4.1.1 Ability to provide persistent surveillance and long-duration missions to drive  
market

11.4.1.2 Use case: Wasp AE- tethered airborne military robot for ISR operations

### 11.4.2 REMOTELY PILOTED

11.4.2.1 Increasing defense budgets to drive market

11.4.2.2 Use case: Phoenix Ghost drone deployed in Ukraine for rapid deployment in  
hostile environments

### 11.4.3 OPTIONALLY PILOTED

11.4.3.1 Growing demand for cost-effective and high-performance solutions to drive  
market

11.4.3.2 Use case: Sikorsky UH-60M Black Hawk for transporting cargo or  
performing casualty evacuations

### 11.4.4 FULLY AUTONOMOUS

11.4.4.1 Increasing need for surveillance over contested regions, border patrols, and  
counter-terrorism operations to drive market

11.4.4.2 Use case: Autonomous counter-drone defense for military operations

## 12 MILITARY ROBOTS MARKET, BY PROPULSION

### 12.1 INTRODUCTION

### 12.2 ELECTRIC

12.2.1 INCREASING ADOPTION OF ELECTRIC-POWERED SYSTEMS TO  
IMPROVE OPERATIONAL EFFECTIVENESS IN MODERN WARFARE TO DRIVE  
MARKET

12.2.1.1 Use case: US Navy's Sea Hunter enhancing naval stealth and efficiency

### 12.3 MECHANICAL



### 12.3.1 ABILITY TO CARRY OUT COMPLEX, HIGH-LOAD OPERATIONS WHILE MAINTAINING MOBILITY AND VERSATILITY TO DRIVE MARKET

12.3.1.1 Use case: TALON Robot for bomb disposal and reconnaissance

### 12.4 HYBRID

#### 12.4.1 HIGH OPERATIONAL RANGE AND ENDURANCE TO DRIVE MARKET

12.4.1.1 Use case: Rooster hybrid ground-aerial drone system used by Spanish Army

## 13 MILITARY ROBOTS MARKET, BY RANGE

### 13.1 INTRODUCTION

### 13.2 LAND

#### 13.2.1 5 KM

13.2.3.1 Increasing need for combat support in modern warfare to drive market

### 13.3 MARINE

13.3.1 13.3.1.1 Increasing need for cost-effective and efficient solutions for patrolling harbors to drive market

#### 13.3.2 3-5 NAUTICAL MILES (5.5 KM–9.3 KM)

13.3.2.1 Need for surveillance capabilities over larger territories to drive market

#### 13.3.3 >5 NAUTICAL MILES (>9.6 KM)

13.3.3.1 Ability to conduct long-range operations and continuous real-time monitoring to drive market

### 13.4 AIRBORNE

#### 13.4.1 VISUAL LINE OF SIGHT

13.4.1.1 Increasing short-range missions to drive market

#### 13.4.2 EXTENDED VISUAL LINE OF SIGHT

13.4.2.1 Increasing need for enhanced surveillance capabilities over larger territories to drive market

#### 13.4.3 BEYOND VISUAL LINE OF SIGHT

13.4.3.1 Growing need for operational flexibility and strategic advantages to drive market

## 14 MILITARY ROBOTS MARKET, BY SYSTEM

### 14.1 INTRODUCTION

### 14.2 LAND

#### 14.2.1 PAYLOAD

14.2.1.1 Development of more advanced and specialized autonomous ground systems to drive market

#### 14.2.1.2 Sensor

14.2.1.3 Radar

14.2.1.4 Laser

14.2.1.5 Camera

14.2.1.6 Manipulator arm

14.2.1.7 Land combat system

#### 14.2.2 CONTROLLER SYSTEM

14.2.2.1 Increasing need to manage multiple operations to drive demand

#### 14.2.3 NAVIGATION SYSTEM

14.2.3.1 Ability to navigate difficult terrains to drive demand

#### 14.2.4 OTHERS

### 14.3 MARINE

#### 14.3.1 CAMERA

14.3.1.1 Rising need to detect submerged objects or threats to drive demand

#### 14.3.2 SENSOR AND RADAR

14.3.2.1 Increasing mine detection and anti-submarine warfare operations to drive demand

#### 14.3.3 LIGHTING SYSTEM

14.3.3.1 Growing need for continuous monitoring of maritime areas to drive demand

#### 14.3.4 NAVIGATION SYSTEM

14.3.4.1 Rising long-duration missions to drive demand

#### 14.3.5 POWER SYSTEM

14.3.5.1 Advancements in power systems to drive demand

#### 14.3.6 NAVAL COMBAT SYSTEM

14.3.6.1 Development of more advanced and reliable naval combat systems to drive demand

#### 14.3.7 OTHERS

### 14.4 AIRBORNE

#### 14.4.1 PAYLOAD

14.4.1.1 Increasing need to enhance military capabilities to drive demand

14.4.1.2 UAV camera

14.4.1.3 UAV CBRN sensor

14.4.1.4 UAV electronic intelligence payload

14.4.1.5 UAV radar

14.4.1.6 UAV combat system

#### 14.4.2 SENSOR

14.4.2.1 Rapid innovations in sensor technology to drive market

#### 14.4.3 NAVIGATION SYSTEM

14.4.3.1 Increasing complexity of military missions to drive market

#### 14.4.4 COMMUNICATIONS SYSTEM

14.4.4.1 Growth of swarm technology to drive market

#### 14.4.5 PROPULSION SYSTEM

14.4.5.1 Increasing demand for long-range surveillance, intelligence gathering, and precision strikes to drive demand

#### 14.4.6 POWER SYSTEM

14.4.6.1 Growing shift toward hybrid or electric power systems to drive demand

#### 14.4.7 OTHERS

### 15 MILITARY ROBOTS MARKET, BY REGION

#### 15.1 INTRODUCTION

#### 15.2 NORTH AMERICA

##### 15.2.1 PESTLE ANALYSIS

##### 15.2.2 US

15.2.2.1 Advanced R&D and government initiatives to drive market

##### 15.2.3 CANADA

15.2.3.1 Focus on increasing unmanned capabilities to drive market

#### 15.3 EUROPE

##### 15.3.1 PESTLE ANALYSIS

##### 15.3.2 UK

15.3.2.1 Rising demand for advanced unmanned systems in defense industry to drive market

##### 15.3.3 FRANCE

15.3.3.1 Government focus on advancing unmanned systems for defense applications to drive market

##### 15.3.4 GERMANY

15.3.4.1 Increasing investment in unmanned systems to drive market

##### 15.3.5 ITALY

15.3.5.1 Advancing autonomous systems for enhanced defense and security operations to drive market

##### 15.3.6 REST OF EUROPE

#### 15.4 ASIA PACIFIC

##### 15.4.1 PESTLE ANALYSIS

##### 15.4.2 INDIA

15.4.2.1 Defense modernization and need to combat cross-border terrorism to drive market

##### 15.4.3 JAPAN

15.4.3.1 Defense technology enhancement and automation needs to drive market

##### 15.4.4 SOUTH KOREA

15.4.4.1 Investment in robotics technologies to drive market

#### 15.4.5 AUSTRALIA

15.4.5.1 Need for enhanced border security and maritime surveillance to drive market

#### 15.4.6 REST OF ASIA PACIFIC

### 15.5 MIDDLE EAST & AFRICA

#### 15.5.1 PESTLE ANALYSIS

#### 15.5.2 GCC COUNTRIES

##### 15.5.2.1 UAE

15.5.2.1.1 Advancement in ISR capabilities to drive market

##### 15.5.2.2 Saudi Arabia

15.5.2.2.1 Military modernization and unmanned technology development to drive market

#### 15.5.3 ISRAEL

15.5.3.1 Need for advanced unmanned systems to enhance security and defense to drive market

#### 15.5.4 TURKEY

15.5.4.1 Strengthening security amid regional instability and internal threats to drive market

#### 15.5.5 SOUTH AFRICA

15.5.5.1 Need for enhanced border security and anti-poaching operations to drive market

### 15.6 LATIN AMERICA

#### 15.6.1 PESTLE ANALYSIS

#### 15.6.2 BRAZIL

15.6.2.1 Border security and surveillance needs to drive market

#### 15.6.3 MEXICO

15.6.3.1 Modernization of defense infrastructure to drive market

## 16 COMPETITIVE LANDSCAPE

### 16.1 INTRODUCTION

### 16.2 KEY PLAYER STRATEGIES/RIGHT TO WIN, 2020–2024

### 16.3 REVENUE ANALYSIS

### 16.4 MARKET SHARE ANALYSIS, 2023

### 16.5 BRAND/PRODUCT COMPARISON

### 16.6 COMPANY FINANCIAL METRICS AND VALUATION

### 16.7 COMPANY EVALUATION MATRIX: KEY PLAYERS, 2023

#### 16.7.1 STARS

#### 16.7.2 EMERGING LEADERS

### 16.7.3 PERVASIVE PLAYERS

### 16.7.4 PARTICIPANTS

### 16.7.5 COMPANY FOOTPRINT, 2023

#### 16.7.5.1 Company footprint

#### 16.7.5.2 Company type footprint

#### 16.7.5.3 Company end user footprint

#### 16.7.5.4 Company propulsion footprint

#### 16.7.5.5 Company region footprint

### 16.8 COMPANY EVALUATION MATRIX: STARTUPS/SMES, 2023

#### 16.8.1 PROGRESSIVE COMPANIES

#### 16.8.2 RESPONSIVE COMPANIES

#### 16.8.3 DYNAMIC COMPANIES

#### 16.8.4 STARTING BLOCKS

#### 16.8.5 COMPETITIVE BENCHMARKING

##### 16.8.5.1 List of key startups/SMEs

##### 16.8.5.2 Competitive benchmarking of key startups/SMEs

### 16.9 COMPETITIVE SCENARIO

#### 16.9.1 PRODUCT LAUNCHES

#### 16.9.2 DEALS

#### 16.9.3 OTHERS

## 17 COMPANY PROFILES

### 17.1 KEY PLAYERS

#### 17.1.1 NORTHROP GRUMMAN

##### 17.1.1.1 Business overview

##### 17.1.1.2 Products offered

##### 17.1.1.3 Recent developments

###### 17.1.1.3.1 Product launches

###### 17.1.1.3.2 Deals

###### 17.1.1.3.3 Other developments

##### 17.1.1.4 MnM view

###### 17.1.1.4.1 Right to win

###### 17.1.1.4.2 Strategic choices

###### 17.1.1.4.3 Weaknesses and competitive threats

#### 17.1.2 BOEING

##### 17.1.2.1 Business overview

##### 17.1.2.2 Products offered

##### 17.1.2.3 Recent developments

- 17.1.2.3.1 Deals
- 17.1.2.3.2 Other developments
- 17.1.2.4 MnM view
  - 17.1.2.4.1 Right to win
  - 17.1.2.4.2 Strategic choices
  - 17.1.2.4.3 Weaknesses and competitive threats
- 17.1.3 LOCKHEED MARTIN CORPORATION
  - 17.1.3.1 Business overview
  - 17.1.3.2 Products offered
  - 17.1.3.3 Recent developments
    - 17.1.3.3.1 Deals
    - 17.1.3.3.2 Other developments
  - 17.1.3.4 MnM view
    - 17.1.3.4.1 Right to win
    - 17.1.3.4.2 Strategic choices
    - 17.1.3.4.3 Weaknesses and competitive threats
- 17.1.4 ELBIT SYSTEMS LTD.
  - 17.1.4.1 Business overview
  - 17.1.4.2 Products offered
  - 17.1.4.3 Recent developments
    - 17.1.4.3.1 Product launches
    - 17.1.4.3.2 Deals
    - 17.1.4.3.3 Other developments
  - 17.1.4.4 MnM view
    - 17.1.4.4.1 Right to win
    - 17.1.4.4.2 Strategic choices
    - 17.1.4.4.3 Weaknesses and competitive threats
- 17.1.5 TELEDYNE TECHNOLOGIES INCORPORATED
  - 17.1.5.1 Business overview
  - 17.1.5.2 Products offered
  - 17.1.5.3 Recent developments
    - 17.1.5.3.1 Product launches
    - 17.1.5.3.2 Deals
    - 17.1.5.3.3 Other developments
  - 17.1.5.4 MnM view
    - 17.1.5.4.1 Right to win
    - 17.1.5.4.2 Strategic choices
    - 17.1.5.4.3 Weaknesses and competitive threats
- 17.1.6 ISRAEL AEROSPACE INDUSTRIES

- 17.1.6.1 Business overview
- 17.1.6.2 Products offered
- 17.1.6.3 Recent developments
  - 17.1.6.3.1 Deals
  - 17.1.6.3.2 Other developments
- 17.1.7 BAE SYSTEMS
  - 17.1.7.1 Business overview
  - 17.1.7.2 Products offered
  - 17.1.7.3 Recent developments
    - 17.1.7.3.1 Product launches
    - 17.1.7.3.2 Deals
    - 17.1.7.3.3 Other developments
- 17.1.8 EDGE PJSC GROUP
  - 17.1.8.1 Business overview
  - 17.1.8.2 Products offered
  - 17.1.8.3 Recent developments
    - 17.1.8.3.1 Product launches
    - 17.1.8.3.2 Deals
    - 17.1.8.3.3 Other developments
- 17.1.9 L3HARRIS TECHNOLOGIES, INC.
  - 17.1.9.1 Business overview
  - 17.1.9.2 Products offered
  - 17.1.9.3 Recent developments
    - 17.1.9.3.1 Deals
    - 17.1.9.3.2 Other developments
- 17.1.10 LEONARDO S.P.A.
  - 17.1.10.1 Business overview
  - 17.1.10.2 Products offered
  - 17.1.10.3 Recent developments
    - 17.1.10.3.1 Deals
    - 17.1.10.3.2 Other developments
- 17.1.11 THALES
  - 17.1.11.1 Business overview
  - 17.1.11.2 Products offered
  - 17.1.11.3 Recent developments
    - 17.1.11.3.1 Deals
- 17.1.12 GENERAL DYNAMICS CORPORATION
  - 17.1.12.1 Business overview
  - 17.1.12.2 Products offered



- 17.1.12.3 Recent developments
  - 17.1.12.3.1 Other developments
- 17.1.13 TEXTRON INC.
  - 17.1.13.1 Business overview
  - 17.1.13.2 Products offered
  - 17.1.13.3 Recent developments
    - 17.1.13.3.1 Deals
    - 17.1.13.3.2 Other developments
- 17.1.14 RTX
  - 17.1.14.1 Business overview
  - 17.1.14.2 Products offered
  - 17.1.14.3 Recent developments
    - 17.1.14.3.1 Other developments
- 17.1.15 KRATOS DEFENSE & SECURITY SOLUTIONS, INC.
  - 17.1.15.1 Business overview
  - 17.1.15.2 Products offered
  - 17.1.15.3 Recent developments
    - 17.1.15.3.1 Other developments
- 17.1.16 GENERAL ATOMICS
  - 17.1.16.1 Business overview
  - 17.1.16.2 Products offered
  - 17.1.16.3 Recent developments
    - 17.1.16.3.1 Product launches
    - 17.1.16.3.2 Deals
    - 17.1.16.3.3 Other developments
- 17.1.17 RHEINMETALL AG
  - 17.1.17.1 Business overview
  - 17.1.17.2 Products offered
  - 17.1.17.3 Recent developments
    - 17.1.17.3.1 Product launches
    - 17.1.17.3.2 Deals
- 17.1.18 QINETIQ
  - 17.1.18.1 Business overview
  - 17.1.18.2 Products offered
- 17.1.19 AEROVIRONMENT, INC.
  - 17.1.19.1 Business overview
  - 17.1.19.2 Products offered
  - 17.1.19.3 Recent developments
    - 17.1.19.3.1 Other Developments

#### 17.1.20 SAAB AB

##### 17.1.20.1 Business overview

##### 17.1.20.2 Products offered

##### 17.1.20.3 Recent developments

##### 17.1.20.3.1 Other developments

#### 17.2 OTHER PLAYERS

##### 17.2.1 BOSTON DYNAMICS

##### 17.2.2 SHIELD AI

##### 17.2.3 CLEARPATH ROBOTICS INC.

##### 17.2.4 MARITIME ROBOTICS

##### 17.2.5 ANDURIL

### 18 APPENDIX

#### 18.1 DISCUSSION GUIDE

#### 18.2 ANNEXURE A

#### 18.3 ANNEXURE B

#### 18.4 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL

#### 18.5 CUSTOMIZATION OPTIONS

#### 18.6 RELATED REPORTS

#### 18.7 AUTHOR DETAILS

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