

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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Report description:

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 UMVs 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

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 UMVs for mine countermeasures, Increasing use of UAVs in life-threatening military missions, Increasing use of UAVs as loitering munition), Restrains (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.

Table of Contents:

1 INTRODUCTION 48 1.1 STUDY OBJECTIVES 48 1.2 MARKET DEFINITION 48 1.3 MARKET SCOPE 49 1.3.1 MILITARY ROBOTS MARKET SEGMENTATION AND GEOGRAPHICAL SPREAD 49 1.3.2 YEARS CONSIDERED 50 1.4 CURRENCY & PRICING 50 1.5 INCLUSIONS AND EXCLUSIONS 51 1.6 STAKEHOLDERS 52 1.7 SUMMARY OF CHANGES 52 2 RESEARCH METHODOLOGY 53 2.1 RESEARCH DATA 53 2.1.1 SECONDARY DATA 54 2.1.1.1 Key data from secondary sources 55 2.1.2 PRIMARY DATA 55 2.1.2.1 Primary insights 56 2.1.2.2 Key data from primary sources 57 2.2 FACTOR ANALYSIS 58 2.2.1 INTRODUCTION 58 2.2.2 DEMAND-SIDE INDICATORS 58 2.2.3 SUPPLY-SIDE INDICATORS 59 2.3 RUSSIA-UKRAINE WAR IMPACT ANALYSIS 59 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 61

2.3.2.1 R&D investment 61

2.3.2.2[Procurement]61

2.3.2.3 Import/Export control 61

2.4 MARKET SIZE ESTIMATION 62

2.4.1 BOTTOM-UP APPROACH 62

2.4.2 MARKET SIZE ESTIMATION AND METHODOLOGY FOR LAND ROBOTS 62

2.4.3 MARKET SIZE ESTIMATION AND METHODOLOGY FOR MARINE ROBOTS 63

2.4.4 MARKET SIZE ESTIMATION AND METHODOLOGY FOR AIRBORNE ROBOTS 63

2.4.5 TOP-DOWN APPROACH 64

2.5 DATA TRIANGULATION 65

2.6 RESEARCH ASSUMPTIONS 66

2.7 RESEARCH LIMITATIONS 66

2.8 RISK ANALYSIS 67

3 EXECUTIVE SUMMARY 68

4 PREMIUM INSIGHTS 73

4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN MILITARY ROBOTS MARKET 73

4.2 MILITARY ROBOTS MARKET, BY TYPE 73

4.3 MILITARY ROBOTS MARKET, BY PROPULSION 74

4.4 MILITARY ROBOTS MARKET, BY LAND ROBOT TYPE 74

4.5 MILITARY ROBOTS MARKET, BY END USER 75

5 MARKET OVERVIEW 76

5.1 INTRODUCTION 76

5.2 MARKET DYNAMICS 76

5.2.1[]DRIVERS[]77

5.2.1.1[Land[]77

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 77

5.2.1.1.3 Developing smart robots to carry out combat operations 77

5.2.1.1.4 Improving intelligence, surveillance, reconnaissance, and target acquisition capabilities of defense forces 78

5.2.1.2[Marine[]79

5.2.1.2.1 Increasing adoption of unmanned maritime vehicles for mine countermeasures 79

5.2.1.2.2 Maritime security and threats 79

5.2.1.3[Airborne[]80

5.2.1.3.1 Increasing use of unmanned aerial vehicles in life-threatening military missions 80

5.2.1.3.2 Increasing use of modern warfare techniques by defense forces 81

5.2.1.3.3 Increasing use of UAVs as loitering munitions 81

5.2.1.3.4 Increasing use of UAVs in advanced patrolling of marine borders 81

5.2.1.3.5 Growing use of UAVs for counter-terrorism 82

5.2.2 RESTRAINTS 82

5.2.2.1[]Land[]82

5.2.2.1.1 Requirement for developing sophisticated and highly reliable unmanned ground vehicles 82

5.2.2.1.2 Limited advanced visual capabilities in unmanned ground vehicles 82

5.2.2.2 Marine 83

5.2.2.1 Low reliability of unmanned underwater vehicles 83

?

5.2.2.3[]Airborne[]83

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5.2.3 OPPORTUNITIES 84 5.2.3.1 [Land 84 5.2.3.1.1 Increasing defense budgets by various countries 84 5.2.3.1.2 Development of fully autonomous unmanned ground vehicles 85 5.2.3.2 Marine 85 5.2.3.2.1 Advancements in underwater robotics technology 85 5.2.3.3 Airborne 86 5.2.3.3.1 Technological advancements in drone payloads 86 5.2.3.3.2 Full-scale conversion of drones for simulation of war scenarios 86 5.2.4 CHALLENGES 86 5.2.4.1∏Land∏86 5.2.4.1.1 Autonomy and decision-making 86 5.2.4.1.2 Battery life and power management 87 5.2.4.2 Marine 87 5.2.4.2.1 Communication limitations for marine robots 87 5.2.4.3 Airborne 87 5.2.4.3.1 Defining secure identification 87 5.2.4.3.2 Lack of sustainable power sources to improve drone endurance 88 5.3 OPERATIONAL DATA 88 5.4 TRENDS AND DISRUPTIONS IMPACTING CUSTOMER BUSINESS 90 5.5 VALUE CHAIN ANALYSIS 91 5.5.1 RESEARCH & DEVELOPMENT 91 5.5.2 RAW MATERIAL 91 5.5.3 MANUFACTURING 91 5.5.4 ASSEMBLY AND INTEGRATION 92 5.5.5 END USER 92 5.6 ECOSYSTEM ANALYSIS 92 5.6.1 PROMINENT COMPANIES 92 5.6.2 PRIVATE AND SMALL ENTERPRISES 92 5.6.3 END USERS 92 5.7 PRICING ANALYSIS 94 5.7.1 INDICATIVE PRICING ANALYSIS. BY TYPE 94 5.7.2 INDICATIVE PRICING ANALYSIS, BY END USER 95 5.8 CASE STUDY ANALYSIS 95 5.8.1 ENHANCING WARFIGHTER MOBILITY: DEVELOPMENT OF LEGGED SQUAD SUPPORT SYSTEM (LS3) BY DARPA 95 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 96 5.8.4 ENHANCING MARITIME COUNTER-TRAFFICKING OPERATIONS WITH AEROVIRONMENT'S UAS 97 5.9 REGULATORY LANDSCAPE 97 5.9.1 NORTH AMERICA 97 5.9.2[EUROPE]98 5.9.3 ASIA PACIFIC 99 5.9.4 MIDDLE EAST & AFRICA 99 5.9.5 LATIN AMERICA 100 5.10 TRADE DATA 101 5.10.1 IMPORT SCENARIO 101

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5.2.2.3.1 Lack of skilled and trained operators 83

5.10.2 EXPORT SCENARIO 102 5.11 TECHNOLOGY ANALYSIS 103 5.11.1 KEY TECHNOLOGIES 103 5.11.1.1 [LiDAR]103 5.11.1.2 Advanced navigation systems 103 5.11.2 COMPLEMENTARY TECHNOLOGIES 104 5.11.2.1 Electro-optical and radar sensor payloads 104 5.11.3 ADJACENT TECHNOLOGIES 104 5.11.3.1 Exoskeleton technology 104 5.12 KEY STAKEHOLDERS AND BUYING CRITERIA 104 5.12.1 KEY STAKEHOLDERS IN BUYING PROCESS 104 5.12.2 BUYING CRITERIA 105 5.13 KEY CONFERENCES AND EVENTS, 2025-2026 107 5.14 BILL OF MATERIALS 108 5.14.1 BILL OF MATERIALS FOR AIRBORNE ROBOT COMPONENTS 108 5.14.2 BILL OF MATERIALS FOR LAND ROBOT COMPONENTS 109 5.14.3 BILL OF MATERIALS FOR MARINE ROBOT COMPONENTS 111 5.15 BUSINESS MODELS 113 5.15.1 BUSINESS MODELS IN AIRBORNE MILITARY ROBOTS MARKET 113 5.15.1.1 Direct sales model 113 5.15.1.2 Operating lease model 115 5.15.2 BUSINESS MODELS IN LAND-BASED MILITARY ROBOTS MARKET 116 5.15.2.1 Equipment sales and leasing model 116 5.15.2.2 Customized solutions model 116 5.15.3 BUSINESS MODELS IN MARINE MILITARY ROBOTS MARKET 117 5.15.3.1 Product-based sales model 118 5.15.3.2 Leasing and rental model 118 ? 5.16 TOTAL COST OF OWNERSHIP 119 5.16.1 TOTAL COST OF OWNERSHIP FOR AIRBORNE ROBOTS 119 5.16.2 TOTAL COST OF OWNERSHIP OF LAND ROBOTS 121 5.16.3 TOTAL COST OF OWNERSHIP OF MARINE ROBOTS 122 5.17 TECHNOLOGY ROADMAP 123 5.17.1 □ EMERGING TRENDS IN MILITARY ROBOTS MARKET □ 126 5.18 IMPACT OF ARTIFICIAL INTELLIGENCE 127 5.18.1 INTRODUCTION 127 5.18.2 IMPACT OF ARTIFICIAL INTELLIGENCE ON DEFENSE INDUSTRY 127 5.18.3 ADOPTION OF ARTIFICIAL INTELLIGENCE IN MILITARY, BY TOP COUNTRIES 5.18.4 IMPACT OF ARTIFICIAL INTELLIGENCE ON MILITARY ROBOTS MARKET 129 5.19 MACROECONOMIC OUTLOOK 131 5.19.1 INTRODUCTION 131 5.19.2 NORTH AMERICA 131 5.19.3 EUROPE 131 5.19.4 ASIA PACIFIC 131 5.19.5 MIDDLE EAST 131 5.19.6 LATIN AMERICA 132 5.19.7 AFRICA 132

5.20 INVESTMENT AND FUNDING SCENARIO 133 6[INDUSTRY TRENDS]134 6.1 INTRODUCTION 134 6.2 TECHNOLOGY TRENDS 134 6.2.1 SWARM OPERATION 134 6.2.2 HUMAN-ROBOT INTERACTION 134 6.2.3 ADVANCED SENSOR 135 6.2.4 ADVANCED COMMUNICATIONS SYSTEMS 135 6.3 IMPACT OF MEGA TRENDS 136 6.3.1 ⊓ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING □136 6.3.2∏ADVANCED MATERIALS AND MANUFACTURING∏136 6.3.3 BIG DATA ANALYTICS 137 6.4 SUPPLY CHAIN ANALYSIS 137 6.5 PATENT ANALYSIS 138 7 DEPLOYMENT METHOD FOR MILITARY ROBOTS 142 7.1 INTRODUCTION 142 7.2 LAND ROBOTS 142 7.2.1 GROUND DEPLOYMENT 142 7.2.1.1 Advantages 143 7.2.1.2 Limitations 143 7.2.1.3 Use case: FirstLook enhancing mission safety and efficiency with Teledyne FLIR defense ground robots 143 7.2.2 HAND-TOSSED DEPLOYMENT 143 7.2.2.1 Advantages 143 7.2.2.2 Limitations 144 7.2.2.3 Use case: Enhancing mine clearance operations with MV-4 vehicles in Ukraine 144 7.2.3 AIR DEPLOYMENT 144 7.2.3.1 Advantages 144 7.2.3.2 Limitations 145 7.2.3.3 Use case: Air-deployed UGVs for defense missions 145 7.3 MARINE ROBOTS 145 7.3.1 SURFACE DEPLOYMENT 145 7.3.1.1 Advantages 146 7.3.1.2□Limitations□146 7.3.1.3 Use case: Taiwan's deployment of Huilong UUV via Torpedo Launch Tube 146 7.3.2 TUBE-LAUNCHED DEPLOYMENT 146 7.3.2.1 Advantages 147 7.3.2.2 Limitations 147 7.3.2.3 Use case: BlueWhale autonomous submarine for NATO's maritime security 147 7.3.3 AIR DEPLOYMENT 147 7.3.3.1 Advantages 147 7.3.3.2 Limitations 148 7.3.3.3 Use Case: US Navy tests air deployment of underwater glider 148 7.4∏AIRBORNE ROBOTS∏148 7.4.1 RUNWAY TAKEOFF 148 7.4.1.1 Advantages 148 7.4.1.2 Limitations 149 7.4.1.3 Use case: Enhancing reconnaissance in high-altitude border areas with Heron MALE 149

7.4.2.1 Advantages 149 7.4.2.2 Limitations 149 7.4.2.3 Use case: Catapult-launched ScanEagle UAV enhancing maritime surveillance 149 7.4.3 HAND LAUNCHED 150 7.4.3.1 Advantages 150 7.4.3.2 Limitations 150 7.4.3.3 Use case: Deploying hand-launched RQ-11 Raven drones for tactical surveillance 150 ? 7.4.4 AIR DEPLOYMENT 151 7.4.4.1 Advantages 151 7.4.4.2 Limitation 151 7.4.4.3 Use case: Phoenix Ghost drones used by Ukraine 151 8 MILITARY ROBOTS MARKET, BY TYPE 152 8.1 INTRODUCTION 153 8.2 AND ROBOTS 154 8.2.1 WHEELED 155 8.2.1.1 Highly effective in diverse terrains 155 8.2.1.2 Use case: Ukraine's Ironclad wheeled robot enhances tactical capabilities in modern warfare 155 8.2.2 || LEGGED || 156 8.2.2.1 Ability to operate in high-risk environments to drive demand 156 8.2.2.2 Use case: Indian Army inducts robotic MULEs to enhance logistical support in challenging terrain 156 8.2.3 TRACKED 156 8.2.3.1 Ability to operate in unpredictable terrains to drive demand 156 8.2.3.2 Use case: Viking enhancing military operations with multi-role capabilities for UK Ministry of Defence 8.3 MARINE ROBOTS 157 8.3.1 UNMANNED SURFACE VEHICLES 158 8.3.1.1 Ability to conduct high-risk maritime operations to drive market 158 8.3.1.2[Use case: MANTAS T-12 USVs for surveillance, swarming operations, and electronic warfare[]158 8.3.2 AUTONOMOUS UNDERWATER VEHICLES 158 8.3.2.1 Increasing need for underwater reconnaissance missions to drive demand 158 8.3.2.2 Use Case: US Navy Orca Extra Large Unmanned Underwater Vehicle (XLUUV) offers long-range, autonomous operations for critical missions⊓159 8.3.3 REMOTELY OPERATED VEHICLES 159 8.3.3.1 Increasing mine countermeasures and anti-submarine warfare to drive demand 159 8.3.3.2 Use case: Deep Trekker's underwater ROV for US military operations 159 8.4⊓AIRBORNE ROBOTS⊓160 8.4.1 SMALL UAV 161 8.4.1.1 Supports covert surveillance and reconnaissance missions 161 8.4.1.2 Use case: AeroVironment's UAS for maritime counter-trafficking operations 161 8.4.2 TACTICAL UAV 161 8.4.2.1 [Increasing demand for tactical drones that can be hand-launched to drive market [161 8.4.2.2 Use case: Integration of UAVs in Israel's military operations 161 2 8.4.3 STRATEGIC UAV 162 8.4.3.1 Increasing need for operational superiority to drive demand 162 8.4.3.2 Use case: Counter-terrorism operations with MQ-9 Reaper 162

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7.4.2 CATAPULT LAUNCHED 149

9⊓MILITARY ROBOTS MARKET, BY APPLICATION⊓163 9.1 INTRODUCTION 164 9.2[[LAND[]164 9.2.1 EXPLOSIVE ORDNANCE DISPOSAL TO BE LEADING SEGMENT OF LAND APPLICATION 164 9.2.2 INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE 165 9.2.3 SEARCH AND RESCUE 165 9.2.4 COMBAT SUPPORT 166 9.2.5 TRANSPORTATION 166 9.2.6 EXPLOSIVE ORDNANCE DISPOSAL 166 9.2.7 MINE CLEARANCE 166 9.2.8 FIREFIGHTING 167 9.2.9 OTHERS 167 9.3 MARINE 167 9.3.1 ABILITY OF MILITARY ROBOTS TO ENHANCE OPERATIONAL EFFICIENCY TO DRIVE MARKET[167 9.3.2 INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE 169 9.3.3 SEARCH AND RESCUE 169 9.3.4 COMBAT SUPPORT 169 9.3.5 MINE CLEARANCE 169 9.3.6 SECURITY, DETECTION, AND INSPECTION 169 9.3.7 OTHERS 170 9.4∏AIRBORNE∏170 9.4.1 AIRBORNE MILITARY ROBOTS- INTEGRAL TO MODERN MILITARY OPERATIONS 170 9.4.2⊓INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE⊓171 9.4.3 COMBAT 171 9.4.4 DELIVERY 171 10 MILITARY ROBOTS MARKET, BY END USER 172 10.1 INTRODUCTION 173 10.2 DEFENSE 174 10.2.1[]ARMY[]174 10.2.1.1 Focus on modernizing military capabilities to drive market 174 10.2.2 NAVY 174 10.2.2.1 Increasing investments to modernize naval fleets and improve operational readiness to drive market 174 10.2.3 AIR FORCE 174 10.2.3.1 Increasing demand for superior situational awareness to drive market 174 ? 10.3 GOVERNMENT AND LAW ENFORCEMENT 175 10.3.1 GROWING NEED FOR ENHANCED PUBLIC SAFETY AND SECURITY TO DRIVE SEGMENTAL GROWTH 175 11 MILITARY ROBOTS MARKET, BY OPERATIONAL TECHNOLOGY 176 11.1 INTRODUCTION 177 11.2 AND 177 11.2.1 TELEOPERATED 178 11.2.1.1 Technological advancements in wireless communication and remote control systems to drive market 178 11.2.1.2 Use case: TALON Robot for explosive ordnance disposal 178 11.2.2 AUTONOMOUS 178 11.2.2.1 Enhanced operational efficiency and safety to drive market 178 11.2.2.2 Use case: Multi-utility Tactical Transport (MUTT)- US Army's Supply Chain 4.0 initiative 179 11.3 MARINE 179

11.3.1 REMOTELY OPERATED 180

11.3.1.1 Rising need for remote operation for mine countermeasures to drive market 180

11.3.1.2 Use case: US Navy used remotely operated vehicles for mine countermeasures and naval operations in Strait of Hormuz 180

11.3.2 AUTONOMOUS 180

11.3.2.1 Growing focus on reducing human risk in naval operations to drive market 180

11.3.2.2 Use case: US Navy planning to adopt autonomous systems for ISR, mine countermeasures, and hybrid integration 181

11.4 AIRBORNE 181

11.4.1[]TETHERED[]182

11.4.1.1 Ability to provide persistent surveillance and long-duration missions to drive market 182

11.4.1.2 Use case: Wasp AE- tethered airborne military robot for ISR operations 183

11.4.2 REMOTELY PILOTED 183

11.4.2.1 Increasing defense budgets to drive market 183

11.4.2.2 Use case: Phoenix Ghost drone deployed in Ukraine for rapid deployment in hostile environments 183

11.4.3 OPTIONALLY PILOTED 183

11.4.3.1 Growing demand for cost-effective and high-performance solutions to drive market 183

11.4.3.2 Use case: Sikorsky UH-60M Black Hawk for transporting cargo or performing casualty evacuations 184

11.4.4 FULLY AUTONOMOUS 184

11.4.4.1 [Increasing need for surveillance over contested regions, border patrols, and counter-terrorism operations to drive market []184

11.4.4.2 Use case: Autonomous counter-drone defense for military operations 184

12 MILITARY ROBOTS MARKET, BY PROPULSION 185

12.1 INTRODUCTION 186

12.2[]ELECTRIC[]187

12.2.1 INCREASING ADOPTION OF ELECTRIC-POWERED SYSTEMS TO IMPROVE OPERATIONAL EFFECTIVENESS IN MODERN WARFARE TO DRIVE MARKET 187

12.2.1.1 Use case: US Navy's Sea Hunter enhancing naval stealth and efficiency 187

12.3 MECHANICAL 188

12.3.1 ABILITY TO CARRY OUT COMPLEX, HIGH-LOAD OPERATIONS WHILE MAINTAINING MOBILITY AND VERSATILITY TO DRIVE MARKET 188

12.3.1.1 Use case: TALON Robot for bomb disposal and reconnaissance 188

12.4[]HYBRID[]188

12.4.1 HIGH OPERATIONAL RANGE AND ENDURANCE TO DRIVE MARKET 188

12.4.1.1 Use case: Rooster hybrid ground-aerial drone system used by Spanish Army 189

13 MILITARY ROBOTS MARKET, BY RANGE 190

13.1 INTRODUCTION 191

13.2[LAND[]191

13.2.1[]<1 KM[]192

13.2.1.1 Need for enhanced operational efficiency while reducing risks to soldiers in dangerous zones to drive market 192

13.2.2[]1-5 KM[]192

13.2.2.1 Growing demand for battlefield automation to drive market 192

13.2.3[]>5 KM[]193

13.2.3.1 Increasing need for combat support in modern warfare to drive market 193

13.3[]MARINE[]193

13.3.1 < 3 NAUTICAL MILES (5.5 KM) 194

13.3.1.1 Increasing need for cost-effective and efficient solutions for patrolling harbors to drive market 194

13.3.2[]3-5 NAUTICAL MILES (5.5 KM-9.3 KM)[]195

13.3.2.1 Need for surveillance capabilities over larger territories to drive market 195 13.3.3[]>5 NAUTICAL MILES (>9.6 KM)[]195 13.3.3.1 Ability to conduct long-range operations and continuous real-time monitoring to drive market 13.4 AIRBORNE 195 13.4.1 VISUAL LINE OF SIGHT 196 13.4.1.1 Increasing short-range missions to drive market 196 13.4.2 EXTENDED VISUAL LINE OF SIGHT 197 13.4.2.1 Increasing need for enhanced surveillance capabilities over larger territories to drive market 197 ? 13.4.3 BEYOND VISUAL LINE OF SIGHT 197 13.4.3.1 Growing need for operational flexibility and strategic advantages to drive market 197 14 MILITARY ROBOTS MARKET, BY SYSTEM 198 14.1 INTRODUCTION 199 14.2[LAND[]199 14.2.1 PAYLOAD 200 14.2.1.1 Development of more advanced and specialized autonomous ground systems to drive market 200 14.2.1.2 Sensor 200 14.2.1.3 Radar 200 14.2.1.4[Laser]201 14.2.1.5 Camera 201 14.2.1.6 Manipulator arm 201 14.2.1.7 Land combat system 201 14.2.2 CONTROLLER SYSTEM 201 14.2.2.1 Increasing need to manage multiple operations to drive demand 201 14.2.3 NAVIGATION SYSTEM 202 14.2.3.1 Ability to navigate difficult terrains to drive demand 202 14.2.4 OTHERS 202 14.3 MARINE 202 14.3.1 CAMERA 203 14.3.1.1 Rising need to detect submerged objects or threats to drive demand 203 14.3.2 SENSOR AND RADAR 203 14.3.2.1 Increasing mine detection and anti-submarine warfare operations to drive demand 203 14.3.3 LIGHTING SYSTEM 204 14.3.3.1∏Growing need for continuous monitoring of maritime areas to drive demand^[204] 14.3.4 NAVIGATION SYSTEM 204 14.3.4.1 Rising long-duration missions to drive demand 204 14.3.5 POWER SYSTEM 204 14.3.5.1 Advancements in power systems to drive demand 204 14.3.6 NAVAL COMBAT SYSTEM 204 14.3.6.1 Development of more advanced and reliable naval combat systems to drive demand 204 14.3.7 OTHERS 205 14.4 AIRBORNE 205 14.4.1 PAYLOAD 206 14.4.1.1 Increasing need to enhance military capabilities to drive demand 206 14.4.1.2 UAV camera 206 14.4.1.3 UAV CBRN sensor 207 14.4.1.4 UAV electronic intelligence payload 207

14.4.1.5 UAV radar 207 14.4.1.6 UAV combat system 207 14.4.2 SENSOR 207 14.4.2.1 Rapid innovations in sensor technology to drive market 207 14.4.3 NAVIGATION SYSTEM 208 14.4.3.1 Increasing complexity of military missions to drive market 208 14.4.4 COMMUNICATIONS SYSTEM 208 14.4.4.1 Growth of swarm technology to drive market 208 14.4.5 PROPULSION SYSTEM 208 14.4.5.1 Increasing demand for long-range surveillance, intelligence gathering, and precision strikes to drive demand 208 14.4.6 POWER SYSTEM 209 14.4.6.1 Growing shift toward hybrid or electric power systems to drive demand 209 14.4.7 OTHERS 209 15 MILITARY ROBOTS MARKET, BY REGION 210 15.1 INTRODUCTION 211 15.2 NORTH AMERICA 213 15.2.1 PESTLE ANALYSIS 214 15.2.2 US 225 15.2.2.1 Advanced R&D and government initiatives to drive market 225 15.2.3 CANADA 230 15.2.3.1 Focus on increasing unmanned capabilities to drive market 230 15.3[]EUROPE[]235 15.3.1 PESTLE ANALYSIS 235 15.3.2 UK 248 15.3.2.1 Rising demand for advanced unmanned systems in defense industry to drive market 248 15.3.3 FRANCE 252 15.3.3.1 Government focus on advancing unmanned systems for defense applications to drive market 252 15.3.4 GERMANY 257 15.3.4.1 Increasing investment in unmanned systems to drive market 257 15.3.5 || ITALY || 262 15.3.5.1 Advancing autonomous systems for enhanced defense and security operations to drive market 262 15.3.6 REST OF EUROPE 267 15.4 ASIA PACIFIC 272 15.4.1 PESTLE ANALYSIS 272 15.4.2 INDIA 285 15.4.2.1 Defense modernization and need to combat cross-border terrorism to drive market 285 ? 15.4.3 JAPAN 290 15.4.3.1 Defense technology enhancement and automation needs to drive market 290 15.4.4 SOUTH KOREA 295 15.4.4.1 Investment in robotics technologies to drive market 295 15.4.5 AUSTRALIA 300 15.4.5.1 Need for enhanced border security and maritime surveillance to drive market 300 15.4.6 REST OF ASIA PACIFIC 305 15.5 MIDDLE EAST & AFRICA 310 15.5.1 PESTLE ANALYSIS 310 15.5.2 GCC COUNTRIES 323

15.5.2.1 UAE 323 15.5.2.1.1 Advancement in ISR capabilities to drive market 323 15.5.2.2 Saudi Arabia 328 15.5.2.2.1 Military modernization and unmanned technology development to drive market 328 15.5.3[|ISRAEL[]333 15.5.3.1 Need for advanced unmanned systems to enhance security and defense to drive market 15.5.4 TURKEY 338 15.5.4.1 Strengthening security amid regional instability and internal threats to drive market 15.5.5 SOUTH AFRICA 343 15.5.5.1 Need for enhanced border security and anti-poaching operations to drive market 343 15.6 LATIN AMERICA 348 15.6.1 PESTLE ANALYSIS 349 15.6.2 BRAZIL 361 15.6.2.1 Border security and surveillance needs to drive market 361 15.6.3 MEXICO 366 15.6.3.1 Modernization of defense infrastructure to drive market 366 16 COMPETITIVE LANDSCAPE 371 16.1 INTRODUCTION 371 16.2 KEY PLAYER STRATEGIES/RIGHT TO WIN, 2020-2024 371 16.3 REVENUE ANALYSIS 373 16.4 MARKET SHARE ANALYSIS, 2023 374 16.5 BRAND/PRODUCT COMPARISON 376 16.6 COMPANY FINANCIAL METRICS AND VALUATION 377 16.7 COMPANY EVALUATION MATRIX: KEY PLAYERS, 2023 378 16.7.1 STARS 378 16.7.2 EMERGING LEADERS 378 16.7.3 PERVASIVE PLAYERS 378 16.7.4 PARTICIPANTS 378 16.7.5 COMPANY FOOTPRINT, 2023 380 16.7.5.1 Company footprint 380 16.7.5.2 Company type footprint 381 16.7.5.3 Company end user footprint 382 16.7.5.4 Company propulsion footprint 383 16.7.5.5 Company region footprint 384 16.8 COMPANY EVALUATION MATRIX: STARTUPS/SMES, 2023 385 16.8.1 PROGRESSIVE COMPANIES 385 16.8.2 RESPONSIVE COMPANIES 385 16.8.3 DYNAMIC COMPANIES 385 16.8.4 STARTING BLOCKS 385 16.8.5 COMPETITIVE BENCHMARKING 387 16.8.5.1 List of key startups/SMEs 387 16.8.5.2 Competitive benchmarking of key startups/SMEs 387 16.9 COMPETITIVE SCENARIO 388 16.9.1 ⊓PRODUCT LAUNCHES 388 16.9.2 DEALS 390 16.9.3 OTHERS 397 17 COMPANY PROFILES 406

17.1 KEY PLAYERS 406 17.1.1 NORTHROP GRUMMAN 406 17.1.1.1 Business overview 406 17.1.1.2 Products offered 407 17.1.1.3 Recent developments 409 17.1.1.3.1 Product launches 409 17.1.1.3.2 Deals 409 17.1.1.3.3 Other developments 410 17.1.1.4 MnM view 411 17.1.1.4.1 Right to win 411 17.1.1.4.2 Strategic choices 411 17.1.1.4.3 Weaknesses and competitive threats 411 17.1.2 BOEING 412 17.1.2.1 Business overview 412 17.1.2.2 Products offered 413 17.1.2.3 Recent developments 415 17.1.2.3.1 Deals 415 17.1.2.3.2 Other developments 415 17.1.2.4 MnM view 416 17.1.2.4.1 Right to win 416 17.1.2.4.2 Strategic choices 416 17.1.2.4.3 Weaknesses and competitive threats 416 17.1.3 LOCKHEED MARTIN CORPORATION 417 17.1.3.1 Business overview 417 17.1.3.2 Products offered 418 17.1.3.3 Recent developments 419 17.1.3.3.1 Deals 419 17.1.3.3.2 Other developments 419 17.1.3.4[MnM view]420 17.1.3.4.1 Right to win 420 17.1.3.4.2 Strategic choices 420 17.1.3.4.3 Weaknesses and competitive threats 420 17.1.4 ELBIT SYSTEMS LTD. 421 17.1.4.1 Business overview 421 17.1.4.2 Products offered 422 17.1.4.3 Recent developments 424 17.1.4.3.1 Product launches 424 17.1.4.3.2 Deals 425 17.1.4.3.3 Other developments 425 17.1.4.4 MnM view 426 17.1.4.4.1 Right to win 426 17.1.4.4.2 Strategic choices 426 17.1.4.4.3 Weaknesses and competitive threats 426 17.1.5 TELEDYNE TECHNOLOGIES INCORPORATED 427 17.1.5.1 Business overview 427 17.1.5.2 Products offered 428 17.1.5.3 Recent developments 431

17.1.5.3.1 Product launches 431 17.1.5.3.2 Deals 431 17.1.5.3.3 Other developments 432 17.1.5.4 MnM view 433 17.1.5.4.1 Right to win 433 17.1.5.4.2 Strategic choices 433 17.1.5.4.3 Weaknesses and competitive threats 433 17.1.6 ISRAEL AEROSPACE INDUSTRIES 434 17.1.6.1 Business overview 434 17.1.6.2 Products offered 435 17.1.6.3 Recent developments 437 17.1.6.3.1 Deals 437 17.1.6.3.2 Other developments 438 17.1.7 BAE SYSTEMS 439 17.1.7.1 Business overview 439 17.1.7.2 Products offered 440 17.1.7.3 Recent developments 441 17.1.7.3.1 Product launches 441 17.1.7.3.2 Deals 441 17.1.7.3.3 Other developments 442 17.1.8 EDGE PJSC GROUP 443 17.1.8.1 Business overview 443 17.1.8.2 Products offered 443 17.1.8.3 Recent developments 445 17.1.8.3.1 Product launches 445 17.1.8.3.2 Deals 446 17.1.8.3.3 Other developments 447 17.1.9 L3HARRIS TECHNOLOGIES, INC. 448 17.1.9.1 Business overview 448 17.1.9.2 Products offered 449 17.1.9.3 Recent developments 450 17.1.9.3.1 Deals 450 17.1.9.3.2 Other developments 450 17.1.10 LEONARDO S.P.A. 451 17.1.10.1 Business overview 451 17.1.10.2 Products offered 452 17.1.10.3 Recent developments 453 17.1.10.3.1 Deals 453 17.1.10.3.2 Other developments 454 17.1.11 THALES 455 17.1.11.1 □Business overview □455 17.1.11.2 Products offered 456 17.1.11.3 Recent developments 457 17.1.11.3.1 Deals 457 17.1.12 GENERAL DYNAMICS CORPORATION 458 17.1.12.1 Business overview 458 17.1.12.2 Products offered 459

17.1.12.3 Recent developments 460 17.1.12.3.1 Other developments 460 17.1.13 TEXTRON INC. 461 17.1.13.1 Business overview 461 17.1.13.2 Products offered 462 17.1.13.3 Recent developments 463 17.1.13.3.1 Deals 463 17.1.13.3.2 Other developments 464 17.1.14[RTX]465 17.1.14.1 Business overview 465 17.1.14.2 Products offered 466 17.1.14.3 Recent developments 466 17.1.14.3.1 Other developments 466 17.1.15 KRATOS DEFENSE & SECURITY SOLUTIONS, INC. 467 17.1.15.1 Business overview 467 17.1.15.2 Products offered 468 17.1.15.3 Recent developments 469 17.1.15.3.1 Other developments 469 17.1.16 GENERAL ATOMICS 470 17.1.16.1 Business overview 470 17.1.16.2 Products offered 470 17.1.16.3 Recent developments 472 17.1.16.3.1 Product launches 472 17.1.16.3.2 Deals 472 17.1.16.3.3 Other developments 472 17.1.17 RHEINMETALL AG 473 17.1.17.1 Business overview 473 17.1.17.2 Products offered 474 17.1.17.3 Recent developments 475 17.1.17.3.1 Product launches 475 17.1.17.3.2 Deals 475 17.1.18 QINETIQ 476 17.1.18.1 Business overview 476 17.1.18.2 Products offered 477 17.1.19 AEROVIRONMENT, INC. 479 17.1.19.1 Business overview 479 17.1.19.2 Products offered 480 17.1.19.3 Recent developments 481 17.1.19.3.1 Other Developments 481 17.1.20 SAAB AB 483 17.1.20.1 Business overview 483 17.1.20.2 Products offered 484 17.1.20.3 Recent developments 484 17.1.20.3.1 Other developments 484 17.2 OTHER PLAYERS 485 17.2.1 BOSTON DYNAMICS 485 17.2.2 SHIELD AI 485

17.2.3[CLEARPATH ROBOTICS INC.]486 17.2.4[MARITIME ROBOTICS]486 17.2.5[ANDURIL]487 ? 18[APPENDIX]488 18.1[DISCUSSION GUIDE]488 18.2[ANNEXURE A]490 18.3]ANNEXURE B]492 18.4[KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL]500 18.5[]CUSTOMIZATION OPTIONS]502 18.6[]RELATED REPORTS]503 18.7[]AUTHOR DETAILS]504



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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