Unmanned Ground Vehicle - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-07-01 | 120 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License $4750.00
- Team License (1-7 Users) $5250.00
- Site License $6500.00
- Corporate License $8750.00

Report description:

Unmanned Ground Vehicle Market Analysis

The unmanned ground vehicle (UGV) market is valued at USD 3.44 billion in 2025 and is forecast to reach USD 4.74 billion by 2030, advancing at a 6.62% CAGR. Rising defense modernization programs, a sharp focus on casualty reduction, and accelerating automation across logistics and mining jointly expand addressable demand. The unmanned ground vehicle market also benefits from falling sensor and computing costs that enable sophisticated autonomy without proportionate price increases. At the same time, dual-use procurement strategies let defense buyers tap commercial innovation while warehouse and mining operators leverage proven military reliability. Software-defined differentiation, modular payload bays, and secure 5G links are becoming decisive purchase criteria as buyers seek platforms that can be upgraded through code rather than metal. Regional spending patterns accentuate the picture: North America keeps the lead on absolute budgets, yet Asia-Pacific's fast-rising capital expenditure supplies the highest incremental volume for the unmanned ground vehicle market.

Global Unmanned Ground Vehicle Market Trends and Insights

Military Demand for Casualty-Evacuation UGVs in Contested Environments

Combat medical evacuation drives near-term procurement as the US Army's TRV-150 demonstrator ferries 68 kg of supplies over 70 km during NATO drills, proving value in denied airspace. Ukraine's December 2024 UGV-led assault further validates autonomous ground operations under fire. Defense agencies note that ground robots can reach urban hot zones where helicopters

face anti-air threats, integrating into existing logistics networks with minimal change. This driver also spills into disaster-response agencies that adapt the technology for hazardous-material removal. Together, these factors lift the unmanned ground vehicle market by expanding mission envelopes and shortening acquisition cycles.

Deployment of Counter-IED Robot Fleets for Route-Clearance Missions

Route-clearance doctrine is shifting from single robots to coordinated fleets such as Northrop Grumman's ANDROS and Wheelbarrow Mk9, which now sweep roads in synchronized swarms. Multi-sensor payloads combine ground-penetrating radar with chemical sniffers to neutralize hidden threats while cutting the human risk and economic toll of IED strikes. Civil bomb-disposal squads are following suit, reinforcing demand beyond front-line militaries and solidifying the unmanned ground vehicle market as a versatile security tool.

Interoperability Gaps Across Proprietary UGV Command-and-Control Protocols

Fragmented radio links and software stacks hinder joint operations, pushing defense buyers to fund middleware that inflates lifecycle costs. The Defense Innovation Unit flags integration delays as a key brake on large-scale fielding, while the AUVSI "Trusted UGV" initiative tackles security certification yet stops short of a universal language. Logistics operators face similar headaches when mixing warehouse robots from different vendors, dampening the near-term expansion tempo of the unmanned ground vehicle market.

Other drivers and restraints analyzed in the detailed report include:

Rapid Adoption of Autonomous Logistics Carts in E-commerce Warehouses / Mining Sector's Shift Toward Unmanned Haulage for Zero-Harm Initiatives / Challenging SWaP Trade-offs for Long-Endurance Missions /

For complete list of drivers and restraints, kindly check the Table Of Contents.

Segment Analysis

Military programs generated USD 2.2 billion in 2024, 64.10% of total revenue, anchoring the unmanned ground vehicle market. Large contracts such as the US Army's S-MET Increment II keep demand steady, yet lengthy budget cycles slow annual volume ramp-up. Defense buyers value ruggedization, secure communications, and NATO-grade interoperability, supporting premium pricing and high margins.

Civil and commercial platforms delivered USD 1.2 billion in 2024 and are scaling at 9.84% CAGR, narrowing the gap each year. Labor constraints in fulfillment centers, zero-harm mandates in mines, and autonomous agriculture trials create diversified pull that widens the customer base for the unmanned ground vehicle market. If current trends persist, commercial operators could match defense volumes by 2028, tilting innovation agendas toward warehouse-grade safety systems and mining-ready perception software.

Tele-operated units led 2024 sales with a 55.56% share as commanders and warehouse supervisors stayed in the loop for complex tasks. The segment's maturity and proven reliability sustain core demand within the unmanned ground vehicle market. Yet growth is modest because manpower costs persist and bandwidth limits throttle scaling in remote areas.

Autonomous and hybrid platforms are expanding at 10.58% CAGR. Komatsu's FrontRunner system now steers more than 700 trucks without human drivers.With each software update, perception accuracy and fail-safe redundancy improve, raising buyer confidence. By 2027, autonomous modes are poised to equal tele-operated volumes, remaking control-room staffing models and

uplifting the software content per vehicle in the unmanned ground vehicle market.

The Unmanned Ground Vehicle Market Report is Segmented by Application (Military, and Civil and Commercial), Mobility (Wheeled, Legged, and Tracked), Size Class (Micro, Small, and More), Mode of Operation (Tele-Operated, and More), Component (Hardware, and More), Power Source (Electric Battery, and More), and Geography (North America, Europe, and More). The Market Forecasts are Provided in Terms of Value (USD).

Geography Analysis

North America produced USD 1.35 billion in 2024, equal to 39.34% of the unmanned ground vehicle market. Government test corridors, FAA BVLOS waivers, and a mature defense supply chain underpin this leadership. Contracts like the S-MET Increment II prototype deal demonstrate continued US Army appetite, while Amazon's automation spend injects large commercial volumes. Canada aligns its RPAS rules, smoothing cross-border fleet operations and reinforcing continental-scale advantages.

Europe contributed roughly USD 950 million as coordinated EU funding spurs common standards. The EUR 30.6 million (USD 35.29 million) ICUPS award to the Milrem-led team targets interoperability, directly addressing a leading market restraint. Germany's order for 127 Teledyne FLIR units and Sweden's Mission Master evaluation signify tangible military uptake. Regulatory clarity from UN ECE on cybersecurity for automated vehicles drives supplier investment, strengthening Europe's role as a standards exporter in the global unmanned ground vehicle market.

Asia-Pacific generated USD 675 million in 2024 but delivered the fastest 9.62% CAGR. China's Yimin project showcases mass deployment ability and 5 G-A scalability, while Australia's 907 autonomous mining assets provide an exportable operations model for Huawei. South Korea fields robotic mules for infantry brigades, and Japan channels stimulus funds into smart-factory logistics. Cost-effective manufacturing and large procurement programs give Asia-Pacific a clear path to overtake North America in the unmanned ground vehicle market share before 2028.

List of Companies Covered in this Report:

Teledyne FLIR LLC / General Dynamics Land Systems (General Dynamics Corporation) / Rheinmetall AG / Oshkosh Corporation / Exail SAS / Israel Aerospace Industries Ltd. / Milrem AS / QinetiQ Group plc / Robo-Team Ltd. / Textron Systems Corporation (Textron Inc.) / Peraton Corp. / Nexter Robotics (KNDS N.V.) / Clearpath Robotics (Rockwell Automation, Inc.) / AeroVironment, Inc. / HORIBA MIRA Ltd. / Aselsan AS / Hyundai Rotem Company / Leonardo S.p.A. / L3Harris Technologies, Inc. /

Additional Benefits:

The market estimate (ME) sheet in Excel format /
3 months of analyst support /

Table of Contents:

Unmanned Ground Vehicle - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-07-01 | 120 pages | Mordor Intelligence

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	$4750.00
	Team License (1-7 Users)	$5250.00
	Site License	$6500.00
	Corporate License	$8750.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2026-03-01
		Signature