

Agricultural Robots and Mechatronics Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031)

> **Industry:** AgTech, Precision Farming & Irrigation (Agriculture & Agribusiness)
> **Source:** https://www.mordorintelligence.com/industry-reports/agricultural-robots-and-mechatronics-market
> **Scraped Date:** 2026-09-17

Executive Market Summary

Market Metric	Details
Base Market Size	USD 4.99 billion
Projected Forecast (2031)	USD 4.99 billion
Growth Rate (CAGR)	15.95 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

! [Major players in Agricultural Robots and Mechatronics industry] (images/chart_2.png)

! [Agricultural Robots and Mechatronics Market Size] (images/chart_3.png)

! [Agricultural Robots and Mechatronics Market Share by Type, 2025] (images/chart_4.png)

! [Agricultural Robots and Mechatronics Market Share by Application, 2025] (images/chart_5.png)

! [Agricultural Robots and Mechatronics Market Growth Rate by Region] (images/chart_6.png)

! [Agricultural Robots and Mechatronics Market Concentration] (images/chart_7.png)

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Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market Overview	Study Period	2021 - 2031
Market Size (2026)		USD 4.99 Billion
Market Size (2031)		USD 10.45 Billion
Growth Rate (2026 - 2031)		15.95 %
Fastest Growing Market		Asia Pacific

Largest Market | North America |

Market Concentration | Medium |

Major Players*Disclaimer: Major Players sorted in no particular order

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Market Overview

Agricultural Robots and Mechatronics Market Analysis by Mordor IntelligenceThe agricultural robots and mechatronics market size was valued at USD 4.30 billion in 2025 and estimated to grow from USD 4.99 billion in 2026 to reach USD 10.45 billion by 2031, at a CAGR of 15.95% during the forecast period (2026-2031). Persistent labor shortages, tightening environmental rules, and falling sensor prices are converting autonomy from an option to a necessity. Precision crop-level interventions that cut chemical inputs by up to 40% are becoming the new standard, while bundled software and data services are strengthening recurring-revenue streams. Regional specialists that focus on weed-laser, drone spraying, and livestock robots are exploiting white spaces that large original equipment manufacturers leave open. Intensifying competition is anticipated to accelerate technology cost declines below 15% per year, raising adoption among mid-size farms that historically lacked capital access.

Key Report Takeaways* By type, autonomous tractors led with 37.40% of the market share of the agricultural robots and mechatronics market in 2025, and unmanned aerial vehicles are forecast to expand at a 21.90% CAGR through 2031.

* By application, crop production accounted for 41.55% of the market share of the agricultural robots and mechatronics market in 2025, and is projected to expand at a 17.90% CAGR through 2031.

* By geography, North America held 39.30% market share of the agricultural robots and mechatronics market in 2025, and Asia-Pacific is set to grow at a 19.60% CAGR through 2031.

Key Market Trends

Market Trends and InsightsDrivers Impact Analysis of Agricultural Robots and Mechatronics Market*Driver | (~) % Impact on CAGR Forecast | Geographic Relevance | Impact Timeline |

Advanced Vision-Artificial intelligence (AI) Enables Sub-Centimeter Weeding Accuracy | +2.8% | Global, with early adoption in North America and Western Europe | Medium term (2-4 years) |

Declining Light Detection and Ranging (LIDAR) and Multispectral Sensor Costs Cut Robot Prices | +2.5% | Global, benefiting Asia-Pacific and South America | Short term (≤ 2 years) |

Shortage and Cost of Labor | +2.1% | North America, Western Europe, and Australia | Long term (≥ 4 years) |

Robot-as-a-Service Financing Unlocks Small and Medium Farm Adoption | +1.9% | Asia-Pacific, South America, and Africa | Medium term (2-4 years) |

Government Smart-Farming Incentives and Carbon-Credit Schemes | +1.6% | Europe, North America, and China | Medium term (2-4 years) |

Agricultural Original Equipment Manufacturers (OEMs) Autonomy Roadmaps | +1.4% | Global, led by North America and Europe | Long term (≥ 4 years) |

Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

The market exhibits moderate concentration, with key players accounting for a significant share of the projected 2024 revenue. Deere & Company is enhancing vertical integration by combining hardware, autonomy kits, and its cloud platform, w

high now generates a notable portion of its precision-segment revenue through subscriptions. SZ DJI Technology Co., Ltd. holds a substantial share of the global drone spraying market but faces competition from bundled service offerings in the Asia-Pacific region. AGCO Corporation and CNH Industrial N.V. are focusing on open APIs to reduce integration challenges for mixed fleets.

Specialty-crop automation is attracting startups. Companies are deploying vision-based pickers that achieve high efficiency at reduced costs. Monarch Tractor's electric MK-V, offered through a Robot-as-a-Service model, reduces ownership costs and appeals to organic producers seeking zero-emission certifications. Solar-powered weeders are extending operational shifts without requiring diesel, making them suitable for operations located far from supply depots.

Patent filings highlight strategic priorities within the market. Recent patents have focused on autonomy and implement interoperability. Compliance with ISO standards is increasingly influencing procurement decisions at large cooperatives. A key emerging area of competition is data monetization. Platforms that dominate agronomic intelligence, such as yield prediction, carbon documentation, and input optimization, are positioned to capture significant ecosystem value.

Agricultural Robots and Mechatronics Industry Leaders* Deere & Company

- * AGCO Corporation

- * CNH Industrial N.V.

- * Kubota Corporation

- * SZ DJI Technology Co., Ltd.

- * *Disclaimer: Major Players sorted in no particular order

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Scope Methodology P Space

For this report, the market includes revenue generated from agricultural robots and mechatronics systems used to automate or assist farm operations, mainly across crop production and animal husbandry. It covers the associated hardware and integrated control elements sold into farms.

Scope exclusions: It does not include general farm inputs or conventional machinery that lacks an autonomous or robotic mechatronics function.

Segmentation Container

- * By Type* Autonomous Tractors

- * Unmanned Aerial Vehicles (UAVs)

- * Milking Robots

- * Other Types

- * By Application* Crop Production

- * Animal Husbandry

- * Forest Control

- * Other Applications

- * By Geography* North America* United States

- * Canada

- * Mexico

- * Rest of North America

- * Europe* Spain

- * United Kingdom

- * France
- * Germany
- * Russia
- * Italy
- * Rest of Europe

- * Asia-Pacific* China
- * India
- * Japan
- * Australia
- * Rest of Asia-Pacific

- * South America* Brazil
- * Argentina
- * Rest of South America

- * Middle East* Saudi Arabia
- * United Arab Emirates
- * Rest of Middle East

- * Africa* South Africa
- * Nigeria
- * Rest of Africa

Frequently Asked Questions

What is the 2026 value of the agricultural robots and mechatronics market?

The agricultural robots and mechatronics market size is valued at USD 4.99 billion in 2026.

Which equipment segment is growing the fastest through 2031?

Unmanned aerial vehicles are forecast to post a 21.90% CAGR, the quickest among all equipment types.

How large is North America's share of total demand?

North America accounted for 39.30% of 2025 revenue, the largest regional share.

What business model helps small farms afford robotics?

Robot-as-a-Service leasing lets growers pay USD 20-50 per hectare, avoiding large capital outlays.