

Automated Truck Market Forecasts to 2032 – Global Analysis By Truck Type (Light-duty Trucks, Medium-duty Trucks and Heavy-duty Trucks), Level of Automation, Component, Propulsion, Application, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Automated Truck Market is accounted for \$44.4 billion in 2025 and is expected to reach \$101.9 billion by 2032 growing at a CAGR of 12.60% during the forecast period. An automated truck, also known as a self-driving or autonomous truck, is a commercial vehicle equipped with advanced technologies that allow it to operate with little or no human intervention. These trucks use a combination of sensors, cameras, radar, LiDAR, artificial intelligence, and GPS systems to perceive their environment, navigate roads, detect obstacles, and make driving decisions. Automated trucks are designed to improve safety, reduce human error, enhance fuel efficiency, and optimize logistics operations. They can operate in different levels of automation, from driver-assist features to fully autonomous driving, revolutionizing freight transportation and the future of the logistics industry.

Market Dynamics:

Driver:

Severe truck driver shortages & rising labor costs

Autonomous systems are being deployed to handle long-haul and repetitive routes, reducing dependency on human labor. AI-driven optimization is improving delivery speed and fuel efficiency. E-commerce growth is amplifying demand for scalable transport infrastructure. Investments in autonomous fleets are helping mitigate labor

volatility. These trends are reinforcing the strategic value of automation in freight operations.

Restraint:

Regulatory fragmentation & uncertainty

Differences in safety protocols, testing procedures, and liability frameworks hinder cross-border scalability. Regulatory ambiguity slows OEM investment and pilot expansion. Public road access and insurance coverage remain unresolved in many markets. Smaller firms face barriers in navigating complex approval processes. These issues are delaying widespread adoption and ecosystem development.

Opportunity:

Enhanced operational efficiency & cost savings

Predictive maintenance and real-time monitoring are improving uptime and asset performance. Integration with digital platforms is streamlining routing and dispatch. Autonomous systems are minimizing human error and improving safety outcomes. Fleet operators are achieving better cost control and delivery reliability. These advantages are driving adoption across freight-intensive industries.

Threat:

Workforce displacement & labor resistance

Concerns over skill redundancy and economic impact are influencing regulatory decisions. Public sentiment is shaping pilot approvals and deployment strategies. Absence of structured retraining programs is complicating stakeholder engagement. Companies are under pressure to balance innovation with social responsibility. These dynamics are introducing reputational and policy risks.

Covid-19 Impact:

The Covid-19 pandemic had a mixed impact on the automated truck market. Supply chain disruptions and manufacturing halts initially slowed production and delayed deployments. However, the crisis highlighted the importance of contactless and efficient logistics, accelerating interest in automation. Labor shortages and rising demand for e-

commerce fueled adoption, as automated trucks offered resilience and safety. Investments in research and pilot projects grew despite uncertainties. Overall, the pandemic acted as both a short-term restraint and a long-term growth catalyst.

The heavy-duty trucks segment is expected to be the largest during the forecast period

The heavy-duty trucks segment is expected to account for the largest market share during the forecast period due to their suitability for autonomous long-distance freight. High payload capacity and highway compatibility make them ideal for automation. Integration with ADAS and telematics is enhancing safety and performance. Electrification and modular design are supporting platform innovation. Regulatory support for freight efficiency is boosting investment. This segment will remain dominant due to scale and infrastructure alignment.

The logistics & freight transportation segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the logistics & freight transportation segment is predicted to witness the highest growth rate owing to demand for scalable and efficient delivery systems. Automated trucks are streamlining supply chains and reducing last-mile delays. Integration with warehouse automation and digital platforms is improving throughput. E-commerce growth and urban expansion are driving adoption. Strategic collaborations are accelerating deployment across networks. This segment is set for rapid growth as automation becomes integral to freight operations.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share by the adoption of advanced driver assistance systems and ongoing infrastructure upgrades to support autonomous operations. Major players are focusing on technology integration, such as LiDAR, radar, and AI-powered navigation, to enhance safety and efficiency. Strong government regulations and initiatives for reducing carbon emissions are encouraging fleet modernization. The logistics and e-commerce sectors are fuelling demand for automated medium- and heavy-duty trucks. Partnerships between tech companies and traditional truck manufacturers are accelerating innovation, while pilot projects and real-world deployments are gradually increasing acceptance among transport operators.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR due to rapid industrialization and expanding freight volumes are key growth factors for the automated truck market. Countries are investing heavily in smart highways and autonomous-friendly infrastructure to accommodate next-generation transportation solutions. The market is characterized by a mix of local and international players focusing on cost-effective automation technologies suitable for diverse terrains and traffic conditions. Government policies are promoting digital logistics and automation to improve supply chain efficiency. Rising urbanization, e-commerce growth, and logistics modernization are encouraging early adoption of automated trucks. Collaborative ventures and pilot programs are actively shaping market dynamics across the region.

Key players in the market

Some of the key players in Automated Truck Market include Daimler Truck AG, Volvo Group, PACCAR Inc., Tesla Inc., Aurora Innovation Inc., TuSimple Holdings Inc., Embark Trucks Inc., Kodiak Robotics Inc., PlusAI Inc., Einride AB, Waymo LLC, Hyundai Motor Company, Navistar International Corporation, Scania AB and MAN Truck & Bus SE.

Key Developments:

In July 2025, Daimler Truck North America expanded its partnership with Aeva to scale production of 4D LiDAR sensors for autonomous Freightliner Cascadia trucks. The collaboration enables deployment of up to 200,000 units annually, supporting SAE Level 4 automation with high-resolution velocity and range detection.

In February 2025, Volvo Autonomous Solutions and Waabi announced plans to launch commercial pilots of the Volvo VNL Autonomous in Texas. The truck integrates Waabi's AV2.0 system and will be factory-built with embedded autonomy hardware, targeting full driverless deployment

Truck Types Covered:

Light-duty Trucks

Medium-duty Trucks

Heavy-duty Trucks

Level of Automations Covered:

Level 1 (Driver Assistance)

Level 2 (Partial Automation)

Level 3 (Conditional Automation)

Level 4 (High Automation)

Level 5 (Full Automation)

Components Covered:

Hardware

Software

Services

Propulsions Covered:

Diesel

Electric

Hybrid

Fuel Cell

Applications Covered:

Freight Transportation

Mining

Construction

Other Applications

End Users Covered:

E-commerce & Retail

Manufacturing

Logistics Companies

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

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