

# **Global Autonomous Driving Software Market Size Study, by Level of Autonomy (L2+, L3, L4), by Vehicle Type (Passenger Cars, Commercial Vehicles), and Regional Forecasts 2022-2032**

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## **Abstracts**

The global autonomous driving software market is valued at approximately USD 1.59 billion in 2023 and is anticipated to grow at a robust CAGR of 13.30% over the forecast period 2024-2032. Autonomous driving software represents a pivotal technological breakthrough, integrating artificial intelligence, machine learning, and data analytics to enable advanced vehicular automation. This software orchestrates functions ranging from perception and planning to real-time monitoring and control, paving the way for safer and more efficient transportation systems. Increasing demand for Level 2+ and Level 3 autonomy in passenger and commercial vehicles underscores the growing reliance on these sophisticated systems.

Governments and private sectors alike are investing heavily in autonomous technologies to enhance road safety, reduce emissions, and optimize traffic flows. The rise of electric propulsion further complements autonomous software by creating synergies in smart mobility ecosystems. Software solutions for perception and planning, coupled with interior sensing systems, are witnessing accelerated adoption as manufacturers seek to bolster driver assistance and autonomous capabilities. Moreover, the market is supported by stringent safety standards and policies promoting semi-autonomous and autonomous vehicle adoption across major economies.

While the market outlook remains promising, challenges such as regulatory complexities, high R&D costs, and cybersecurity concerns present notable hurdles. The integration of advanced algorithms with existing vehicle platforms demands significant technological expertise and infrastructure upgrades. However, ongoing collaborations

between automotive OEMs and technology providers are poised to address these challenges, ensuring the deployment of scalable and secure software solutions.

Regionally, North America leads the market due to its mature automotive sector, robust investments in R&D, and favorable regulatory frameworks. Europe follows closely, driven by stringent emission norms and advancements in autonomous vehicle testing. Meanwhile, the Asia-Pacific region is expected to witness the fastest growth, fueled by increasing vehicle production, a burgeoning middle class, and progressive government initiatives in countries like China, Japan, and South Korea.

Major market players included in this report are:

NVIDIA Corporation

Waymo LLC

Mobileye (An Intel Company)

Aptiv PLC

Tesla, Inc.

Bosch Mobility Solutions

General Motors (Cruise LLC)

Hyundai Mobis

Baidu, Inc.

ZF Friedrichshafen AG

Continental AG

Valeo

Aurora Innovation, Inc.

NXP Semiconductors

## Argo AI

The detailed segments and sub-segment of the market are explained below:

### By Level of Autonomy:

L2+

L3

L4

### By Vehicle Type:

Passenger Cars

Commercial Vehicles

### By Propulsion:

ICE

Electric

### By Software Type:

Perception & Planning

Chauffeur

Interior Sensing

Monitoring

## By Region:

### North America

U.S.

Canada

### Europe

UK

Germany

France

Spain

Italy

Rest of Europe

### Asia Pacific

China

India

Japan

Australia

South Korea

Rest of Asia Pacific

## Latin America

Brazil

Mexico

Rest of Latin America

## Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

Years considered for the study are as follows:

Historical year – 2022

Base year – 2023

Forecast period – 2024 to 2032

## Key Takeaways:

Market estimates & forecasts for 10 years from 2022 to 2032.

Annualized revenues and regional-level analysis for each market segment.

Detailed analysis of geographical landscape with country-level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations for future market

approaches.

Analysis of the competitive structure of the market.

Demand-side and supply-side analysis of the market.

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