Drive-by-Wire Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031)

> **Industry:** Autonomous Driving, ADAS & Safety (Automotive & Transportation)

> **Source:** https://www.mordorintelligence.com/industry-reports/drive-by-wire-market
> **Scraped Date:** 2026-09-17

Executive Market Summary

Market Metric	Details
Base Market Size	USD 42.40 billion
Projected Forecast (2031)	USD 42.40 billion
Growth Rate (CAGR)	19.39 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

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![Major players in Drive-by-Wire industry](images/chart_2.png)

![Drive-by-Wire Market (2026 - 2031)](images/chart_3.png)

![Drive-by-Wire Market: Market Share by Application](images/chart_4.png)

![Drive-by-Wire Market: Market Share by Component](images/chart_5.png)

![Drive-by-Wire Market CAGR (%), Growth Rate by Region](images/chart_6.png)

![Drive-by-Wire Market Concentration](images/chart_7.png)

![Icon](images/chart_8.png)

![footer background image](images/chart_10.png)

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![ESOMAR](images/chart_17.png)

![GPTW](images/chart_19.png)
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Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market OverviewStudy Period | 2019 - 2031 |
Market Size (2026) | USD 42.40 Billion |
Market Size (2031) | USD 102.84 Billion |
Growth Rate (2026 - 2031) | 19.39 % |
Fastest Growing Market | Europe |
Largest Market | Asia Pacific |
Market Concentration | Medium |
Major Players*Disclaimer: Major Players sorted in no particular order

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Market Overview

Drive-by-Wire Market Analysis by Mordor IntelligenceThe drive-by-wire market size is projected to be USD 33.88 billion in 2025, USD 42.40 billion in 2026, and reach USD 102.84 billion by 2031, growing at a CAGR of 19.39% from 2026 to 2031. Near-term acceleration reflects a synchrony of strict zero-emission rules, maturing ISO 26262 ASIL-D certification pathways that tame functional-safety risk, and zonal electrical topologies that trim wiring-harness weight by up to 40%. China's GB 17675-2025, set to take effect in July 2026, will phase out mechanical steering columns, paving the way for the widespread adoption of steer-by-wire technology. This move also hints at similar reforms in Europe and North America, anticipated within the next two years. Platforms for battery electric vehicles (BEVs) are driving heightened demand. These platforms do away with components like vacuum boosters, throttle bodies, and hydraulic pumps. This not only reduces the bill of materials for each vehicle but also harnesses significant regenerative braking benefits. Tier-1 suppliers, who have proactively integrated cybersecurity and functional safety measures, are reaping the rewards. As OEMs aim to streamline sourcing and cut validation lead times, these suppliers are securing multi-year contracts.

Key Report Takeaways* By application, throttle-by-wire led with 39.25% of the drive-by-wire market share in 2025, while steer-by-wire is forecast to register the fastest CAGR at 21.33% through 2031.
* By vehicle type, passenger cars accounted for 69.11% of 2025 volume, while medium and heavy commercial vehicles are projected to post a 20.15% CAGR through 2031.
* By propulsion, internal-combustion vehicles retained 64.28% share in 2025, whereas battery electric vehicles are forecast to rise at a 21.64% CAGR.
* By component, actuators accounted for 40.33% revenue in 2025, yet electronic control units are expected to grow at a 20.47% CAGR through 2031.
* By actuation technology, electromechanical accounted for a 59.41% share in 2025 and is set to grow at a 19.85% CAGR.
* By geography, Asia-Pacific accounted for 38.06% share in 2025, while Europe is set to expand at a 20.81% CAGR.

Key Market Trends

Market Trends and InsightsDrivers Impact Analysis of Drive-by-Wire Market*

Driver	(~) % Impact on CAGR Forecast	Geographic Relevance	Impact Timeline
ADAS and Autonomous Driving Growth	+4.2%	Global; early concentration in China, Germany, and the United States	Medium term (2-4 years)
Rising EV Platform Penetration	+3.8%	Asia-Pacific core with spill-over to Europe and North America	Medium term (2-4 years)
Weight-Reduction and Fuel-Efficiency	+2.5%	North America, Europe, and China	Long term (≥ 4 years)
Cyber-Secure Fail-Operational Architectures	+2.1%	Global; led by UNECE WP.29 signatories	Short term (≤ 2 years)
Architectures ReducingHarness Length	+1.9%	North America and Europe; broadening to Asia-Pacific	Medium term (2-4 years)
Rare-Earth-Free Motor Directives	+1.3%	Europe with technology transfer to Asia-Pacific	Long term (≥ 4 years)

Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

In 2025, the top five suppliers—Bosch, Continental, ZF, Nexteer, and JTEKT—accou nted for a significant share of the revenue, indicating a moderately concentrated market. Schaeffler and Hyundai Mobis, through vertical integration, managed to price their actuators lower than those of established players, while maintaining their profit margins. In a strategic move, JTEKT announced in February 2026 its commitment to steer-by-wire technology, transitioning from traditional hydraulic power steering. Meanwhile, Honda increased its stake in Hitachi Astemo in 2025 to ensure a secure supply chain.

As OEMs prioritize software readiness, competition has shifted focus from mere hardware performance. They now demand turnkey systems certified to standards such as ISO 26262 and ISO/SAE 21434, leading to accelerated launch schedules. Suppliers that integrate actuators, sensors, ECUs, middleware, and over-the-air infrastructure are reaping multi-platform contracts. In contrast, vendors offering stand-alone parts face relegation to Tier-2 status.

Supply chains are increasingly influenced by regional dynamics. While multinationals set up actuator plants in Jiangsu and Guangdong to cater to Chinese OEMs, they reserve ISO 26262-certified lines in Germany and Slovakia for their European clientele. Semiconductor giants like Infineon, NXP, and Renesas are innovating by merging motor-control, sensing, and cybersecurity functions onto single dies. This not only reduces validation costs but also opens doors for new system integrators.

Drive-by-Wire Industry Leaders* Robert Bosch GmbH

* Continental AG

* ZF Friedrichshafen AG

* Nexteer Automotive

* JTEKT Corporation

* *Disclaimer: Major Players sorted in no particular order

Component Component 3 Scope Of The Report Bottom

Global Drive-by-Wire Market Report ScopeThe scope includes segmentation by application (throttle-by-wire, brake-by-wire, steer-by-wire, shift-by-wire, park-by-wire, and suspension-by-wire), vehicle type (passenger cars, light commercial vehicles, medium and heavy commercial vehicles, and off-highway vehicles), propulsion type (internal-combustion engine vehicles, hybrid electric vehicles, and battery electric vehicles), component (actuators, sensors, electronic control units, software and middleware, wiring-harness and connectors, and others), and actuation technology (electro-mechanical, electro-hydraulic, and electro-pneumatic). The analysis also covers regional-level segmentation, including North America, South America, Europe, and Middle East, and Africa. Market size and growth forecasts are presented by value in USD.

By ApplicationThrottle-by-Wire |
Brake-by-Wire |
Steer-by-Wire |
Shift-by-Wire |
Park-by-Wire |
Suspension-by-Wire |

Segmentation Accordion Item

By GeographyNorth America | United States |
| Canada |
| Rest of North America |

South America	Brazil
	Argentina
	Rest of South America
Europe	Germany
	United Kingdom
	France
	Italy
	Spain
	Russia
	Rest of Europe
Asia-Pacific	China
	Japan
	India
	South Korea
	Rest of Asia-Pacific
Middle East and Africa	GCC
	Turkey
	South Africa
	Rest of Middle East and Africa

Frequently Asked Questions

What is the forecast value of the drive-by-wire market in 2031?

It is projected to reach USD 102.84 billion by 2031, expanding at a 19.39% CAGR.

Which application is growing fastest inside drive-by-wire?

Steer-by-wire is expected to record a 21.33% CAGR through 2031 due to its role in Level 3 autonomy and column-free cabin layouts.

Which region will grow fastest in drive-by-wire revenue?

Europe should grow at a 20.81% CAGR as rare-earth-free motor laws stimulate steer-by-wire investment.

What barrier most limits short-term penetration?

High system cost and complex ISO 26262 validation add up to USD 1,200 per vehicle and extend launch schedules by nearly two years, restraining budget-segment adoption.