



BYD, Geely, Isuzu and Nissan Adopt NVIDIA Hyperion for Level 4 Vehicles

Leading Automakers and Mobility Providers Build on NVIDIA's End-to-End Autonomous Vehicle Platform as NVIDIA Advances Level 4 Hardware

Editor's note: The name of NVIDIA DRIVE Hyperion was changed to NVIDIA Hyperion in September 2026. All references to the name have been updated in this press release.

News Summary:

- BYD, Geely, Isuzu and Nissan are building level 4-ready vehicles on the NVIDIA Hyperion platform.
- NVIDIA full-stack robotaxis to launch with Uber across 28 markets by 2028, beginning with Los Angeles and San Francisco in the first half of 2027.
- Bolt, Grab, Lyft and TIER IV are scaling global robotaxi development using NVIDIA Hyperion.
- NVIDIA Halos OS introduces a unified safety architecture for AI-driven vehicles, providing a production-ready safety foundation for L4 autonomy on Hyperion.
- The NVIDIA Alpamayo 1.5 open model and NVIDIA Omniverse NuRec technologies help developers train, simulate and refine autonomous driving systems at scale.

GTC--NVIDIA today announced that [NVIDIA Hyperion](#)™ platform adoption is growing expansively, including with global automakers BYD, Geely, Isuzu and Nissan, as well as leading mobility providers -- reflecting rapid momentum toward safe, scalable autonomous vehicle (AV) development.

Standardizing on Hyperion -- supported by the NVIDIA Halos OS safety architecture -- enables these partners to accelerate validation cycles and streamline global deployment strategies. By using a standardized reference architecture that integrates compute, sensors, networking and safety systems, manufacturers and mobility leaders can achieve faster fleet learning and more efficient global scaling.

"The autonomous vehicle revolution is here -- the first multitrillion-dollar robotics industry," said Jensen Huang, founder and CEO of NVIDIA. "Everything that moves will eventually be autonomous. The NVIDIA Hyperion platform and our Alpamayo open reasoning models give vehicles the ability to perceive their surroundings, reason through complex situations and act safely -- making scalable, level 4 autonomy possible."

Hyperion Scales L4 Vehicle Programs and Robotaxi Platforms

Leading automakers BYD, Geely and [Nissan \(powered by Wayve software\)](#) are developing next-generation [level 4](#) AV programs built on NVIDIA Hyperion production-ready compute and sensor architecture.

Isuzu and [TIER IV](#) are also collaborating on L4 autonomous bus development using the NVIDIA DRIVE AGX Thor™ system-on-a-chip, part of NVIDIA Hyperion.

In addition, NVIDIA is collaborating with [Amazon](#) to advance Alexa Custom Assistant with multimodal edge AI capabilities on NVIDIA DRIVE AGX™ accelerated compute, enabling automakers to deliver ambient in-cabin intelligence with privacy in mind and enhanced performance.

Uber is building one of the world's most expansive autonomous ride-hailing networks powered by NVIDIA Hyperion. Supported by a growing roster of automaker platforms, NVIDIA and [Uber](#) today announced an expanded partnership to launch a fleet of autonomous vehicles entirely powered by the full-stack NVIDIA DRIVE AV software across 28 cities and four continents by 2028.

The rollout will begin with Los Angeles and the San Francisco Bay Area in the first half of 2027. This Hyperion-powered fleet will tap into NVIDIA Alpamayo open models and the NVIDIA Halos operating system to accelerate the development and deployment of safe, scalable [robotaxi](#) services worldwide.

Other mobility leaders including [Bolt](#), Grab and [Lyft](#) are also leveraging NVIDIA Hyperion to accelerate autonomous mobility initiatives, signaling broader industry momentum toward software-defined robotaxi fleets.

Advancing Level 4 Hardware

Extending NVIDIA DRIVE's full-stack approach to software safety, [NVIDIA Halos OS](#) delivers a universal safety foundation for production-ready, scalable autonomy on Hyperion.

Built on ASIL D-certified DriveOS foundations, its unified, three-layer safety architecture integrates safety middleware and

deployable safety applications -- including an [NCAP five-star](#) active safety stack to provide the guardrails that enable reasoning-based AI systems to operate with verifiable, automotive-grade integrity at scale.

To continuously validate and support the rigorous AV safety ecosystem, [AEye](#), Flex, [Gatik](#), [Hesai](#), Lucid, MIRA, [PlusAI](#), [Qt Group](#), Saphira and Valeo are joining the [NVIDIA Halos AI Systems Inspection Lab](#).

NVIDIA Alpamayo 1.5: A Reasoning Engine and Steerable Driving Model

In addition, NVIDIA today introduced Alpamayo 1.5, a major upgrade that expands [NVIDIA Alpamayo](#) -- an open portfolio of AI models, simulation frameworks and physical AI datasets for building safe, transparent, reasoning-based AVs -- with an interactive, steerable reasoning model.

Building on the [Alpamayo 1 model](#), Alpamayo 1.5 takes driving video, ego-motion history, navigation guidance and natural language prompts as inputs. Then, it outputs driving trajectories with reasoning traces. This enables developers to steer behavior and specify constraints directly through navigation and text prompts.

Alongside Alpamayo 1.5, the Alpamayo portfolio now includes post-training scripts to enable model adaptation for researchers and developers. Since launching earlier this year, Alpamayo has already been downloaded by more than 100,000 automotive developers worldwide.

With Alpamayo 1.5, vehicles can more effectively learn from rare or unpredictable events -- such as unusual road hazards and complex human behavior -- by replaying scenarios, querying model decisions and applying updated behavioral guidance through prompts and navigation settings.

The model also adds flexible multi-camera support and configurable camera parameters, simplifying reuse of the same AI driving stack across vehicle lines and sensor configurations while preserving compatibility with existing Alpamayo integrations.

Accelerate Reasoning AV Development With NVIDIA Omniverse NuRec

Testing and validating reasoning-based AVs requires high-fidelity simulation that covers the diversity of real-world driving. NVIDIA Omniverse NuRec is a set of 3D Gaussian Splatting technologies that ingest real-world data to reconstruct and render interactive simulation.

NuRec will be generally available on the [NVIDIA NGC](#) catalog, helping AV developers stress-test reasoning behaviors and simulate edge cases without the time and costs of manual worldbuilding.

Leading AV toolchain providers such as [51WORLD](#), [dSPACE](#) and Foretellix have integrated NuRec into their simulation solutions. [Voxel51](#) is using NuRec in its Physical AI Workbench for customers such as Porsche Research, while [Parallel Domain](#) is using the NuRec Fixer model to enhance its reconstruction pipeline. Mcity, an AV research facility run by the University of Michigan, is using NuRec to build a Gaussian-based digital twin of its physical test track for the AV industry and research community.

Watch the [GTC keynote](#) from Huang and explore [sessions](#).

About NVIDIA

[NVIDIA](#) (NASDAQ: NVDA) is the world leader in AI and accelerated computing.

Certain statements in this press release including, but not limited to, statements as to: Everything that moves eventually being robotic and the NVIDIA Hyperion platform and Alpamayo open reasoning models being the engines of this transformation, providing the essential foundation for vehicles to perceive, reason and act with humanlike judgment to make safe, scalable level 4 autonomy a reality; the benefits, impact, performance, and availability of NVIDIA's products, services, and technologies; expectations with respect to NVIDIA's third party arrangements, including with its collaborators and partners; expectations with respect to technology developments; and other statements that are not historical facts are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which are subject to the "safe harbor" created by those sections based on management's beliefs and assumptions and on information currently available to management and are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: global economic and political conditions; NVIDIA's reliance on third parties to manufacture, assemble, package and test NVIDIA's products; the impact of technological development and competition; development of new products and technologies or enhancements to NVIDIA's existing product and technologies; market acceptance of NVIDIA's products or NVIDIA's partners' products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of NVIDIA's products or technologies when integrated into systems; and changes in applicable laws and regulations, as well as other factors detailed from time to time in the most recent reports NVIDIA files with the Securities and Exchange Commission, or SEC, including, but not limited to, its annual report on Form 10-K and quarterly reports on Form 10-Q. Copies of reports filed with the SEC are posted on the company's website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

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Jessica Soares
Corporate Communications
NVIDIA Corporation
press@nvidia.com