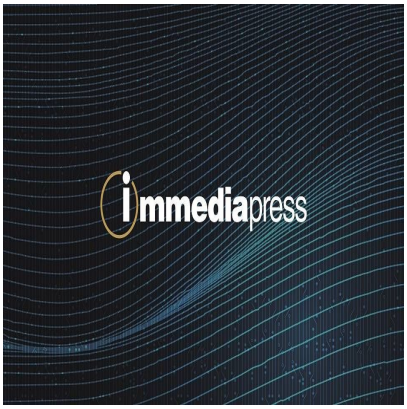



# PATEO Advances In-Vehicle AI with NVIDIA Nemotron and ByteDance Doubao on its AI Box built on NVIDIA DRIVE AGX Thor

## Descrizione

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SHANGHAI, Nov. 3, 2026 /PRNewswire/ â?? PATEO is advancing in-vehicle AI by deploying NVIDIA Nemotron and the 35-billion-parameter ByteDance Doubao language model in its AI Box, built on NVIDIA DRIVE AGX Thor. The solution combines local AI inference with PATEOâ??s AI Agent platform to support multilingual interaction, understand cabin context and coordinate vehicle functions.

At Auto China 2026 in Beijing, PATEO announced joint development of the solution with ByteDance and a leading new energy vehicle automaker. PATEO has also secured a project nomination for a new-generation vehicle from a leading new energy vehicle automaker, with mass production for that program expected in the second quarter of 2027.

In-vehicle local inference with Nemotron and Doubao

PATEO has integrated
NVIDIA Nemotron 3.5 ASR for speech recognition into its in-vehicle model suite. In collaboration with ByteDance, PATEO has also integrated Doubao, a 35-billion-parameter mixture-of-experts language model. The suite includes text-to-speech synthesis and a 2-billion-parameter language model for semantic classification and request rejection.

The integrated suite can run inference locally without a cloud connection, supporting multilingual voice interaction and real-time streaming speech recognition. This enables core AI functions to remain available when connectivity is limited, while connected services and cloud updates extend the systemâ??s capabilities.

The PATEO AI Agent platform combines voice, visual and sensor inputs to interpret user requests and cabin conditions. Within vehicle safety permissions, it can invoke cabin controls and online services, coordinate concurrent tasks and manage longer-running requests. With user authorization, it can

remember preferences and habits to personalize future interactions.

AI Box Brings Proactive Intelligence to the Cockpit

PATEOâ??s AI Box supports practical scenarios throughout the driving experience. Sentinel AI can identify and issue alerts for risks such as parking violations, flooding and fire. On hot commutes, occupants can independently adjust driver and passenger climate settings through voice commands or gestures. During extended highway driving, the AI agent can detect driver fatigue and ask whether the driver would like to open a window or activate seat massage. In areas with poor air quality, it can suggest closing windows and switching to recirculation based on location and learned driving habits.

Built on NVIDIA DRIVE AGX Thor, the AI Box connects perception, reasoning, execution and learning. Sustaining these experiences requires memory bandwidth alongside peak compute measured in TOPS. As context accumulates across conversation turns and agent actions during a trip, the modelâ??s key-value (KV) cache grows, increasing demands on memory capacity and bandwidth. Thorâ??s accelerated compute and high memory bandwidth help support responsive local inference. Within automotive safety permissions, the AI Box coordinates cockpit controls, connected services and concurrent or longer-running tasks. With user authorization, it remembers preferences and habits, while cloud updates help refine its capabilities.

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The AI Boxâ??s modular software architecture and integration with in-vehicle systems and NVIDIAâ??s edge and cloud AI ecosystem support model deployment, tuning and customization across vehicle programs. By adding dedicated AI computing capacity without replacing the original main control chip, it also offers an upgrade path for existing vehicles whose processors cannot support larger models, concurrent multimodal interactions and proactive agents through software updates alone.

Expanding Beyond Hardware with Tokenomics and Physical AI

PATEO is building on the AI Box to expand from one-time hardware delivery into ongoing AI services and operations. Its in-vehicle Tokenomics strategy aims to create recurring revenue around the deployment and use of AI capabilities, extending the business opportunity beyond the initial hardware sale.

In June 2026, PATEO formed partnerships with Mininglamp Technology, Xunce Technology and Saimo Technology to jointly develop a token-based physical AI world model and TokenOS. The collaboration brings together on-device hardware, simulation testing, data infrastructure, creating a foundation for delivering and operating AI services.

Built on NVIDIA DRIVE AGX Thor, the AI Box provides a reusable platform that PATEO can adapt to different automakers and vehicle programs. The company is also extending its expertise in intelligent interaction and hardware engineering into robotics. PATEO reports a project nomination from a leading domestic robotics computing provider, opening an opportunity to apply its platform capabilities to physical AI applications beyond vehicles.

As on-device models and AI agents move toward broader automotive deployment, PATEO is combining NVIDIA accelerated computing with its cockpit software and hardware expertise to support that transition. Its focus on reusable technology, deployment across vehicle programs and ongoing AI services supports its evolution from a smart cockpit supplier into an AI platform company, with

opportunities for growth across automotive and broader physical AI markets.

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