



# NVIDIA Jetson Orin Nano Sets New Standard for Entry-Level Edge AI and Robotics With 80x Performance Leap

## Canon, John Deere, Microsoft Azure, Teradyne, TK Elevator Join Over 1,000 Customers Adopting Jetson Orin Family Within Six Months of Launch

GTC -- NVIDIA today expanded the [NVIDIA@ Jetson™ lineup](#) with the launch of new Jetson Orin Nano™ system-on-modules that deliver up to 80x the performance over the prior generation, setting a new standard for entry-level edge AI and robotics.

For the first time, the NVIDIA Jetson family spans six Orin-based production modules to support a full range of edge AI and robotics applications. This includes the Orin Nano — which delivers up to 40 trillion operations per second (TOPS) of AI performance in the smallest Jetson form factor — up to the AGX Orin™, delivering 275 TOPS for advanced autonomous machines.

Jetson Orin features an NVIDIA Ampere architecture GPU, Arm-based CPUs, next-generation deep learning and vision accelerators, high-speed interfaces, fast memory bandwidth and multimodal sensor support. This performance and versatility empower more customers to commercialize products that once seemed impossible, from engineers deploying edge AI applications to Robotics Operating System (ROS) developers building next-generation intelligent machines.

“Over 1,000 customers and 150 partners have embraced Jetson AGX Orin since NVIDIA announced its availability just six months ago, and Orin Nano will significantly expand this adoption,” said Deepu Talla, vice president of embedded and edge computing at NVIDIA. “With an orders-of-magnitude increase in performance for millions of edge AI and ROS developers today, Jetson Orin is the ideal platform for virtually every kind of robotics deployment imaginable.”

### Making Edge AI and Robotics More Accessible

The Orin Nano modules are form-factor- and pin-compatible with the previously announced [Orin NX modules](#). Full emulation support allows customers to get started developing for the Orin Nano series today using the AGX Orin developer kit. This gives customers the flexibility to design one system to support multiple Jetson modules and easily scale their applications.

Orin Nano supports multiple concurrent AI application pipelines with high-speed I/O and an NVIDIA Ampere architecture GPU. Developers of entry-level devices and applications such as retail analytics and industrial quality control benefit from easier access to more complex AI models at lower cost.

The [Orin Nano modules](#) will be available in two versions. The Orin Nano 8GB delivers up to 40 TOPS with power configurable from 7W to 15W, while the 4GB version delivers up to 20 TOPS with power options as low as 5W to 10W.

The Jetson Orin platform is designed to solve the toughest robotics challenges and brings accelerated computing to over 700,000 ROS developers. Combined with the powerful hardware capabilities of Orin Nano, enhancements in the [latest NVIDIA Isaac™ software](#) for ROS put increased performance and productivity in the hands of roboticists.

### Strong Ecosystem and Software Support

Jetson Orin has seen broad support across the robotics and embedded computing ecosystem, including from Canon, John Deere, Microsoft Azure, Teradyne, TK Elevator and many more.

The NVIDIA [Jetson ecosystem](#) is growing rapidly, with over 1 million developers, 6,000 customers — including 2,000 startups — and 150 partners. Jetson partners offer a wide range of support from AI software, hardware and application design services to cameras, sensors and peripherals, developer tools and development systems.

Orin Nano is supported by the [NVIDIA JetPack™ software development kit](#) and is powered by the same [NVIDIA CUDA-X™ accelerated computing stack](#) used to create breakthrough AI products in such fields as industrial IoT, manufacturing, smart cities and more.

### Availability

The [Jetson Orin Nano modules](#) will be available in January, starting at \$199.

### About NVIDIA

Since its founding in 1993, NVIDIA (NASDAQ: NVDA) has been a pioneer in accelerated computing. The company's invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined computer graphics and ignited the era of modern AI. NVIDIA is now a full-stack computing company with data-center-scale offerings that are reshaping industry. More information at <https://nvidianews.nvidia.com/>.

Certain statements in this press release including, but not limited to, statements as to: the benefits, impact, performance,

features and availability of our products and technologies, including NVIDIA Jetson Orin Nano, Jetson AGX Orin, the Orin Nano modules, NVIDIA Isaac, the NVIDIA JetPack SDK and NVIDIA CUDA-X; customers and partners embracing Jetson AGX Orin; Orin Nano significantly expanding the adoption of Jetson AGX Orin; and NVIDIA's Jetson ecosystem growing rapidly are forward-looking statements that 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 conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners' products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems; 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.

© 2022 NVIDIA Corporation. All rights reserved. NVIDIA, the NVIDIA logo, CUDA-X, Jetson, Jetson AGX Orin, Jetson Orin Nano, NVIDIA Isaac and NVIDIA JetPack are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. Other company and product names may be trademarks of the respective companies with which they are associated. Features, pricing, availability, and specifications are subject to change without notice.

David Pinto  
+1-408-566-6950  
[dpinto@nvidia.com](mailto:dpinto@nvidia.com)