

NVIDIA Releases Major Collection of Open Source Agent Tools and Skills for Physical AI

News Summary:

- NVIDIA releases a major open source collection of physical AI agent skills and tools spanning NVIDIA Omniverse, Cosmos, Alpamayo and Metropolis for robotics, autonomous vehicles, vision AI and industrial digital twins.
- New physical AI skills turn complex physical AI training, evaluation and deployment workflows into repeatable, optimized and agent-executable instructions.
- Industry leaders including Agile Robots, Cadence, Dassault Systèmes, Delta Electronics, Foxconn, Pegatron, PTC, Siemens, Synopsys and TSMC are using NVIDIA physical AI tools to accelerate physical AI development.

NVIDIA GTC Taipei--NVIDIA today announced a major collection of open source [physical AI skills](#) and tools that help developers turn complex robotics, autonomous vehicle (AV), vision AI and industrial digital twin workflows into agent-executable tasks -- reducing the costs, time and complexity of building physical AI workflows at scale.

As AI agents move from writing code to orchestrating entire development tasks, physical AI is the next frontier. NVIDIA physical AI skills, available as part of [NVIDIA Agent Toolkit](#), let agents use NVIDIA libraries, models and frameworks to speed the data generation, simulation, training, evaluation and deployment pipelines behind robots, AVs, factories and labs.

"AI agents are revolutionizing software development, and that shift is now coming to physical AI, extending into the systems that will transform transportation, manufacturing, healthcare and robotics," said Jensen Huang, founder and CEO of NVIDIA. "When agents can directly use NVIDIA libraries, models and frameworks, physical AI development will move faster, enabling developers to build the robots, autonomous vehicles and industrial systems of the future at an incredible pace."

Agent-Ready Tools and Skills for Physical AI Development

NVIDIA is optimizing its entire physical AI stack for agents by turning libraries, models and frameworks into agent-callable tools. This includes [NVIDIA Cosmos](#)™ world foundation models for physical world reasoning and generation, [NVIDIA Omniverse](#)™ libraries for simulation and digital twins, [NVIDIA Isaac](#)™ for robotics simulation and robot learning, [NVIDIA Metropolis](#) for vision AI, [NVIDIA Alpamayo](#) for [autonomous driving](#) and the [NVIDIA Jetson](#)™ platform for edge AI development.

To help developers apply these tools, NVIDIA is launching [new skills](#) as part of NVIDIA Agent Toolkit to turn physical AI development processes into repeatable instructions that coding agents can follow. This includes which tools to call, what outputs to produce and how developers can validate results.

Developers can also safely build and deploy autonomous agents using these skills with the [NVIDIA NemoClaw](#)™ blueprint and the [NVIDIA OpenShell](#)™ runtime, which provides policy-based security and privacy governance on local or cloud hardware.

NVIDIA physical AI skills and tools are accelerating agentic development across:

- **Robotics and edge AI:** Robot developers can use skills to accelerate the entire robotics development pipeline, from generating perception and mobility training data to simulation, automating navigation training, advancing robot learning and tuning Jetson-based edge systems for deployment.
- **Autonomous vehicles:** For AV developers, skills can direct agents to reconstruct data captured by fleets into simulation environments, generate photorealistic driving scenarios at scale and run closed-loop reinforcement learning to expand training and evaluation coverage.
- **Real-time vision AI agents:** For automated inspection and video intelligence, agent skills help teams generate synthetic training data, fine-tune models, automate labeling and build video AI agents that search, summarize and analyze live or recorded video.
- **Industrial AI:** Industrial software developers can use these skills to convert engineering data into computer-aided design (CAD) assets for digital twin simulation, optimizing large OpenUSD scenes with less manual setup.
- **Healthcare:** Before deploying automation in clinical environments, healthcare teams can guide agents through hospital-environment digital twin creation, sim-to-real data generation and software-in-the-loop policy testing.

The skills can be combined and integrated into larger agentic systems, enabling developers to orchestrate and automate complex workflows such as data generation, simulation, optimization, inference tuning, continuous evaluation and more.

Industry Leaders Build With NVIDIA Physical AI Technologies

Industry leaders across manufacturing, autonomous vehicles, healthcare and industrial software are using NVIDIA physical AI libraries to advance the development of autonomous systems and industrial AI.

As these libraries become agent-ready, developers can use NVIDIA skills to help agents automate setup, execution and iteration across complex physical AI workflows.

In electronic manufacturing, TSMC and [Pegatron](#) are fine-tuning visual inspection models. Pegatron [reduced](#) model training and deployment time by 67% using synthetic data generated from the Defect Image Generation skill.

[Delta Electronics](#) generated synthetic defect data and used the skill to catch excess soldering on metal busbars, improving detection rate by 17%. [Inventec](#) developed its Observation Agent visual inspection pipeline by integrating the Defect Image Generation skill, reducing defect data collection effort for laptop chassis manufacturing by 30%. Foxconn, working with DeepHow, used the skill to improve manufacturing efficiency by catching errors early, boosting first pass yield by about 3%.

For autonomous vehicles, Li Auto, Afari and DeepRoute.ai are using NVIDIA Omniverse NuRec models for neural scene reconstruction and rendering, generating 1,000+ reconstructions and more than 300,000 renders and simulations per day. In addition, they are using the new agent skills repository to accelerate and enhance their development of safer, more capable autonomous driving systems.

In industrial AI, [Cadence](#), [Dassault Systèmes](#), [Siemens](#) and [Synopsys](#) are using NVIDIA Omniverse libraries and skills for engineering data inspection, simulation and interactive digital twins. [PTC](#), MetAI and [Lightwheel](#) are tapping the NVIDIA Isaac Sim™ framework and OpenUSD-based workflows to transform CAD data into simulation-ready assets and environments. As part of its Autonomous Fab 2030 roadmap, SK hynix is implementing semiconductor fab digital twins using NVIDIA Omniverse, and collaborating with NVIDIA and [SK Telecom](#) to validate NVIDIA Agent Toolkit for manufacturing-specific physical AI.

1x, Agile Robots, Agility, FieldAI, Hexagon Robotics, NEURA Robotics, Skild AI and Universal Robots are among the robotics leaders using NVIDIA's agent-ready physical AI stack to accelerate robotics development from data generation to deployment.

Foxconn and Compal are using NVIDIA Isaac for Healthcare to accelerate hospital robotics. Foxconn is scaling Nurabot across several hospitals and long-term care environments, bringing AI-powered robotics to patient care, as well as introducing its new Scrub Nurse Collaborative Robot to help optimize operating room workflows. Compal is advancing the development process of its PolyMedX robot toward a hospital-wide orchestration platform, integrating simulation, AI and real-world operations.

Availability

NVIDIA physical AI agent tools and skills are now openly available through [GitHub](#) and [skills.sh](#) for use with any coding agent.

Agent skills and tools for synthetic data generation -- [Neural Reconstruction](#), [Video Augmentation](#), [Defect Image Generation](#) - are also available to try instantly on NVIDIA Brev as [Physical AI Launchables](#), preconfigured environments that bundle agent skills and tools for faster synthetic data generation and evaluation.

Microsoft, [CoreWeave](#) and [Nebius](#) are integrating these agent skills and tools with their cloud services to enable developers to streamline and scale synthetic data generation and deployment.

Watch Huang's [keynote](#), learn more at [NVIDIA GTC Taipei](#) and explore [physical AI 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: AI agents revolutionizing software development, and that shift now coming to physical AI, extending into the systems that will transform transportation, manufacturing, healthcare and robotics; when agents can directly use NVIDIA libraries, models and frameworks, physical AI development moving faster, enabling developers to build the robots, autonomous vehicles and industrial systems of the future at an incredible pace; expectations with respect to growth, performance, availability, and benefits of NVIDIA's products, services and technologies, and related trends and drivers; expectations with respect to NVIDIA's third party arrangements, including with its collaborators and partners; expectations with respect to technology developments, and related trends and drivers; projected market growth and trends; expectations with respect to AI and related industries; 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 products 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; NVIDIA's

ability to realize the potential benefits of business investments or acquisitions; 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.

Many of the products and features described herein remain in various stages and will be offered on a when-and-if-available basis. The statements above are not intended to be, and should not be interpreted as a commitment, promise, or legal obligation, and the development, release, and timing of any features or functionalities described for our products is subject to change and remains at the sole discretion of NVIDIA. NVIDIA will have no liability for failure to deliver or delay in the delivery of any of the products, features or functions set forth herein.

© 2026 NVIDIA Corporation. All rights reserved. NVIDIA, the NVIDIA logo, NVIDIA Cosmos, NVIDIA Isaac, NVIDIA Isaac Sim, NVIDIA Jetson, NVIDIA NemoClaw, NVIDIA Omniverse and NVIDIA OpenShell are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and/or other countries. Other company and product names may be trademarks of the respective companies with which they are associated.

Quentin Nolibois
Corporate Communications
NVIDIA Corporation
press@nvidia.com