



NVIDIA Robotics Adopted by Industry Leaders for Development of Tens of Millions of AI-Powered Autonomous Machines

BYD Electronics, Siemens, Teradyne Robotics and Intrinsic, an Alphabet Company, Using NVIDIA Isaac Robotics Platform for Autonomous Robot Arms, Humanoids, Mobile Robots

COMPUTEX—NVIDIA today announced that the world's leaders in robot development are adopting the [NVIDIA Isaac™ robotics platform](#) for the research, development and production of the next generation of AI-enabled autonomous machines and robots.

BYD Electronics, Siemens, Teradyne Robotics and [Intrinsic](#), an Alphabet company, are among more than a dozen robotics industry leaders globally that are integrating NVIDIA Isaac accelerated libraries, physically based simulation and AI models into their software frameworks and robot models to make factories, warehouses and distribution centers highly efficient and safer for their human coworkers, and act as intelligent assistants for repetitive or ultra-precise tasks.

"The era of robotics has arrived. Everything that moves will one day be autonomous," said Jensen Huang, founder and CEO of NVIDIA. "We are working to accelerate generative physical AI by advancing the NVIDIA robotics stack, including Omniverse for simulation applications, Project GR00T humanoid foundation models and the Jetson Thor robotics computer."

The Isaac platform features a suite of NVIDIA-accelerated libraries, AI foundation models and simulation technologies that are available today to robot makers to integrate into their technology stacks.

- [NVIDIA Isaac ROS](#) — a collection of modular ROS 2 packages that brings NVIDIA-acceleration and AI models to ROS community developers.
- [NVIDIA Isaac Perceptor](#) — a reference workflow built on Isaac ROS that provides multi-camera, 3D surround-vision capabilities for AI-based autonomous mobile robots.
- [NVIDIA Isaac Manipulator](#) — a reference workflow built on Isaac ROS that simplifies development of AI-enabled robot arms, or manipulators, that can seamlessly perceive, understand and interact with their environments.
- [NVIDIA Isaac Sim](#)™ — a reference application for simulating, testing and validating robots in physically based environments, and for generating synthetic data, based on the [NVIDIA Omniverse](#)™ platform.
- [NVIDIA Isaac Lab](#) — a reference application in Isaac Sim optimized for reinforcement, imitation and transfer learning for AI robot foundation model training.

Isaac Ecosystem Rapidly Expands

NVIDIA Isaac's early adopters are leaders in robotics and autonomous machine development across Asia, Europe and North America.

Siemens, global leader in industrial automation software and systems, is using NVIDIA Isaac Sim for its powerful software-in-the-loop capabilities. The Isaac technologies accelerate Siemens development and testing of advanced robotics skills such as SIMATIC Robot PickAI (PRO) and SIMATIC Robot Pack AI. The AI vision software provides cognitive AI-driven capabilities and enables industrial robot systems to autonomously and reliably pick-and-pack arbitrary items without any prior training of the AI by the user. The companies plan to expand their partnership and announce new capabilities later this year at the SPS Expo.

Siemens delivers industrial-grade AI and is pushing it to the forefront of robotics by seamlessly integrating with automation solutions and making it easy to use when deployed on a NVIDIA-powered Siemens industrial PC foundation, bringing vision AI to the ecosystem of industrial robots.

"AI-powered robots will accelerate the digital transformation of industry and take over repetitive tasks that were previously impossible to automate so we can unlock human potential for more creative and valuable work," said Roland Busch, president and CEO at Siemens AG. "Together with NVIDIA, Siemens is empowering our customers and partners to use AI to create new innovations, incorporate them as part of their industrial automation solutions and drive efficiency and competitive advantage."

Intrinsic, a software and AI robotics subsidiary of Alphabet that acquired the Open Source Robotics Corporation in late 2022, has successfully tested [Isaac Manipulator in its robot-agnostic software platform](#). Intrinsic has demonstrated, using Manipulator, the potential for a scalable, universally applicable robotic-grasping skill to work across grippers, environments and objects.

"We couldn't have found a better collaborator in NVIDIA, who are helping to pave the way for foundation models to have a

profound impact on industrial robotics,” said Wendy Tan White, CEO of Intrinsic. “As our teams work together on integrating NVIDIA Isaac and Intrinsic’s platform, the potential value we can unlock for millions of developers and businesses is immense.”

BYD Group has a strong manufacturing footprint across four major industries, including electronics, automotive, new energy and rail transportation worldwide. Its one subsidiary, BYD Electronics (BYDE), a global leading provider of high-tech and innovative products, is developing a full range of autonomous mobile robots that provide factories with complete logistics solutions using NVIDIA Isaac Sim and Isaac Perceptor.

“BYDE has a strong focus on helping customers accelerate deployment of logistics applications,” said Chris Yotive, senior business development director of BYD Electronics. “In collaboration with NVIDIA, we have developed advanced autonomous mobile robots powered by NVIDIA Isaac that will improve worker safety, reduce production costs and enhance production intelligence for our customers.”

Universal Robots (UR) and Mobile Industrial Robots (MiR), Teradyne Robotics companies, are using NVIDIA Isaac to integrate AI into automation. UR is integrating Isaac Manipulator into its PolyScope X software platform to unlock new cobot solutions. MiR is leveraging Isaac Sim to generate synthetic data and simulate its MiR1200 Pallet Jack for real-world deployments.

“The key to tackling our customers’ challenges in robotics lies in the industry’s ability to work together, in one collective effort,” said Ujjwal Kumar, group president of Teradyne Robotics. “With NVIDIA Isaac’s advanced AI and simulation capabilities plugged into our large installed base of autonomous mobile robots and cobots, we will push the envelope of innovation to achieve swift solutions for multiple industries.”

The NVIDIA Isaac platform is modular, enabling companies to adopt individual or several technologies together.

Companies leveraging Isaac Perceptor for development of advanced perception-based autonomous mobile robots include: [ArcBest](#), BYD Electronics, [Gideon](#), [idealworks](#) and [RGo Robotics](#).

Companies leveraging Isaac Manipulator for building AI-based robotic arms include: [Solomon](#), [Techman Robot](#), [Vention](#) and Yaskawa.

Over 100 companies are adopting Isaac Sim to simulate, test and validate robotic applications, including Hexagon, Husqvarna Group and MathWorks. Isaac Lab is being adopted by Agility, Boston Dynamics, Figure AI, Fourier Intelligence and Sanctuary AI.

Robotics Innovation in Action at Computex

In his COMPUTEX keynote, Huang demonstrated robots used in transportation, healthcare and industrial manufacturing. In one demonstration, [Foxconn](#), the world’s largest electronics manufacturer, showcases a [fully simulated autonomous factory](#) in NVIDIA Omniverse, featuring fleets of AI robots developed by NVIDIA robotics partners, based on NVIDIA Isaac.

Watch [Huang’s COMPUTEX keynote](#) to get the latest on AI and more. Read more about the [updates available now](#) to the NVIDIA Isaac platform.

About NVIDIA

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

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