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NVIDIA dominated the day with a coordinated push across physical AI, factory software, AI-cloud buildouts, and on-device agents. OpenAI made its own physical-world move by turning its world-simulation effort into OpenAI Robotics, while data-center expansion increasingly runs into infrastructure and public-acceptance limits.

What stood out

If one theme defined today, it was **AI moving closer to the physical world**. NVIDIA used GTC Taipei/COMPUTEX to launch new pieces for robots, factories, local agents, and AI-cloud buildouts, while OpenAI said its world-simulation program has become OpenAI Robotics [1, 2, 3, 4, 5].

Cosmos 3 and FOX extend NVIDIA's push into physical AI

NVIDIA launched **Cosmos 3**, an open world foundation model that combines vision reasoning, multimodal generation across text, video, images, ambient sound, and action, plus action prediction for robots, autonomous vehicles, and vision AI agents [1]. NVIDIA said the model supports native action generation for robot control, tops several open leaderboards, and is available through build.nvidia.com, Hugging Face, GitHub, and NVIDIA NIM under the Open-MDW 1.1 license [1].

At the same event, NVIDIA introduced the **Factory Operations Blueprint (FOX)** for autonomous factory manager agents built with NemoClaw, AI-Q Blueprint, and Nemotron models [2]. Early deployments cited by NVIDIA include projected gains at Foxconn, Pegatron, and Advantech:

- **Foxconn:** 80% faster root-cause analysis, 15% higher labor productivity, and 10% fewer machine failures [2]
- **Pegatron:** 15% lower asset redundancy costs [2]
- **Advantech:** 10% energy savings [2]

Why it matters: NVIDIA is presenting physical AI as a full workflow—from world modeling to factory orchestration—rather than a single robotics model release [1, 2].

RTX Spark makes on-device agents a more serious PC story

NVIDIA unveiled **RTX Spark**, a new class of Windows PCs built for personal agents, with 1 petaflop of AI compute and 128GB of unified memory for secure local execution [3]. NVIDIA and Microsoft are pairing that hardware with new Windows security primitives and the **OpenShell** runtime, which adds policy controls, local/cloud routing based on privacy policies, and protections for personal data in cloud queries [3].

NVIDIA also highlighted faster inference on agentic models in llama.cpp and vLLM, multi-GPU optimizations, Linux support through **DGX Spark**, and partner work from H Company and Adobe to speed up local computer-use and creative workflows [3].

> "Our goal is to deliver unmetered intelligence to every home and every desk with Windows." [6]

Satya Nadella called RTX Spark "a real breakthrough" toward that goal [6].

Why it matters: The important shift is not just a faster PC. It is a clearer stack for private, on-device agents that can act locally on Windows and Linux machines [3].

OpenAI says its world-simulation program has become OpenAI Robotics

OpenAI said its world simulation research program, led by Aditya Ramesh, has evolved into **OpenAI Robotics**, with hiring underway for full-stack hardware, ops, systems, and ML engineers [5]. The short-term focus is robots that support skilled workers building future infrastructure; the longer-term ambition is personal robots that can help with everyday needs [5].

Why it matters: This is one of the clearest signs yet that OpenAI sees robotics as a direct extension of model and simulation work, not a side project [5].

AI factories keep expanding, but the buildout now has real-world constraints

NVIDIA said its AI Cloud ecosystem is expanding worldwide, with partners building AI factories for training, inference, agentic AI, physical AI, and

sovereign AI workloads [4]. Examples included Firmus expanding across Australia and Asia-Pacific, CoreWeave extending its platform for physical AI workflows and Cosmos 3-based synthetic data, and Nebius launching a Physical AI Workbench built around Cosmos 3, Isaac Sim, and Isaac GR00T [4].

> "Every company and every country needs AI factory infrastructure to turn data into intelligence" [4]

In separate commentary, Ben Thompson argued that AI data centers now require much higher power density and liquid cooling, often forcing entirely new builds, and that local opposition is often less about literal water usage than about fear of AI-driven job disruption and the fact that communities now have approval power over new projects [7].

Why it matters: Compute expansion is now as much an infrastructure and permitting story as it is a chip story [7].

Sources

1. How Cosmos 3 Helps Physical AI Think Before It Acts
2. NVIDIA Factory Operations Blueprint Gives Factories a New AI Brain
3. NVIDIA Levels Up Local AI Agents Across RTX PCs and DGX Spark
4. NVIDIA AI Cloud Ecosystem Expands Worldwide to Meet Global AI Compute Demand
5. X post by @sama
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7. Why Normal People are Freaked Out About AI Data Centers | Sharp Tech with Ben Thompson