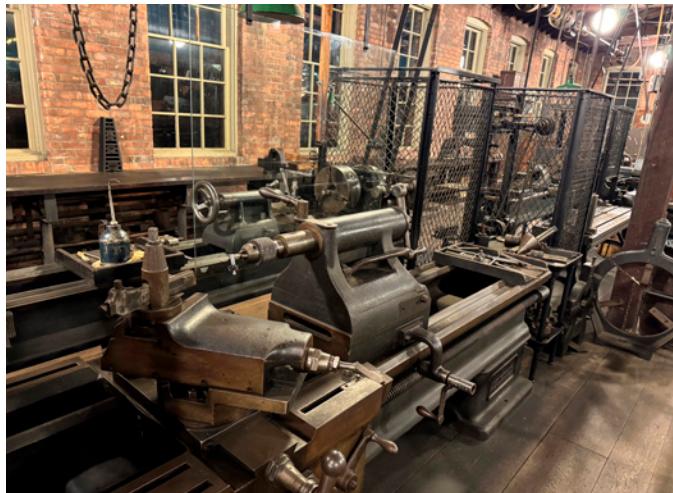# A Tale of Two Timeframes

19th century steam engines to physical AI all in a two–week span

Matthew Jaster, Senior Editor

Two weeks separated my trips between the Armington & Sims Machine Shop and Foundry and my first venture to the Consumer Electronics Show (CES) 2025. The juxtaposition was noteworthy, particularly the sights, sounds and intentions of each trip.

Armington & Sims is part of Henry Ford's Greenfield Village in Dearborn, MI. The building boasts a system of shafts and pulleys distributing mechanical energy to rows of 19th-century machine tools. This is a replica of a multi-purpose job shop operating in Providence, RI, from 1889–1929.

Armington & Sims was a company known for producing an innovative line of stationary steam engines. By 1886, the Edison Illuminating Company had purchased more than 300 engines including those used in Thomas Edison's first commercial power plant in New York City.

Time traveling is part of Greenfield Village's endless charm. I walked through the shop and envisioned what it looked like in 1890—a full staff running the antique lathes, grinders and drill presses.

Two weeks later, I was in Las Vegas at CES 2025 where everybody wanted to talk about humanoid robots, AI and wearable technology. My two "field trips" were so diametrically opposed it was almost comical.

NVIDIA founder and CEO Jensen Huang kicked off CES 2025 with a 90-minute keynote that included new products to advance gaming, autonomous vehicles, robotics and agentic AI.

Huang introduced the NVIDIA *Cosmos* world foundation model platform, describing it as a game-changer for robotics and industrial AI. The next frontier of AI is physical AI, Huang explained. He likened this moment to the transformative impact of large language models on generative AI. "The ChatGPT moment for general robotics is just around the corner," he explained.

NVIDIA also announced *Mega* during CES 2025, an Omniverse Blueprint for developing, testing and optimizing physical AI and robot fleets at scale in a digital twin before deployment into real-world facilities. Imagine advanced warehouses and factories utilizing hundreds of autonomous mobile robots, robotic arm manipulators and humanoids working alongside people.

Mega offers enterprises a reference architecture of NVIDIA accelerated computing, *AI*, *Isaac* and *Omniverse* technologies to develop and test digital twins for testing AI-powered robot brains that drive robots, video analytics AI agents, equipment and more for handling enormous complexity and scale.

Project DIGITS represents NVIDIA's smallest yet most powerful AI supercomputer. "It runs the entire NVIDIA AI stack—all of NVIDIA software runs on this. DGX Cloud runs on this. Every software engineer, every engineer, every creative artist—everybody who uses computers today as a tool—will need an AI supercomputer," Huang said. Project DIGITS will launch in May.

On the CES show floor, I was also "starstruck" by how quick these technology advancements are coming. We're seeing lighter, smaller and more powerful components being produced for humanoid robots. Wearable AR devices—practical and compact—are showing up in business, healthcare and manufacturing. Dozens of software-defined vehicles are ready to challenge traditional automotive companies.

What will our shop floors look like 100 years from now? I may simply ask my AI-equipped smart glasses for a shop tour circa 2090, just to wrap my head around the possibilities.

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