VIAM

The harness for physical AI

Viam is software for building, deploying, and operating robots and other smart machines. It is the layer between your application, including any AI models it uses, and the hardware. Viam connects the two through standard APIs, keeps every machine within enforced safety limits, and manages machines securely, from one to a fleet of thousands.

Why it matters

A model can propose what a machine should do, but it cannot make that action safe, repeatable, or manageable across a thousand machines. In software, the harness, or the tooling around the model, is essential in making AI systems reliable. In the physical world the stakes are higher, because a wrong action moves real hardware. The challenge of making AI safe and reliable on hardware is why many physical AI projects never reach scalable deployment. Viam does not make models or hardware, but supports them all. It is the harness physical AI needs in production.

What you get

- **On-device runtime.** Open-source viam-server runs on anything from a Raspberry Pi to an industrial PC, and keeps running if the cloud connection drops.
- **Standard APIs.** Arms, cameras, motors, and sensors share common interfaces, so swapping a vendor is a config change, not a rewrite. SDKs in Python, Go, TypeScript, C++, and Flutter.
- **Module registry.** Thousands of drivers, models, and services that drop into any machine.
- **Fleet operations.** Remote configuration, teleop, updates, monitoring, logs, and access control.
- **Train your own models.** Machines capture images, sensor readings, and arm joint positions. Train on that data in Viam, or bring your own model, and deploy it to the fleet.
- **Designed for agents.** Use Viam's built-in robotics agents, or connect your own agents through the Viam MCP server.

Safe and secure by design

- **Enforced limits.** Safety limits run on the machine, below the application. Moves are planned against declared obstacles, unsafe paths are refused, and an arm stops if the connection drops.
- **Secure by default.** Machines connect outbound only, with no open ports or VPNs to manage. Access is controlled by organization, location, and machine, with SSO and MFA.
- **Independently audited.** SOC 2 Type II audited, ISO 27001 certified, HIPAA compliant, and designed to support GDPR and CPRA. Viam never trains models on customer data.

From one machine to a fleet

- **Develop (0 to 1 machine).** Connect hardware, train models, and build applications in simulation or on hardware. Gambit built a working cooking robot demo in under 2 months.
- **Deploy (1 to 100 machines).** Ship software, models, and configuration over the air, and teleoperate and diagnose machines remotely. Canyon Runner connects hundreds of boats.
- **Operate (100 to 1 million machines).** Manage security, monitoring, staged rollouts, and data across the fleet. Kongsberg's Sonar AI, built on Viam, is in production on 200+ boats. Tennibot sends over-the-air updates to 1000+ of robots.

"Viam has allowed us to integrate AI technology on the Simrad SY60 that only a few years ago we would have never thought possible at scale." Martin Tollefsen, KONGSBERG

Also building on Viam: Viking Yachts (fiberglass sanding), UBS Arena (wait times), Appetronix (autonomous restaurants), CompScience (workplace safety), and Tech Mahindra (automation).

Company

Founded in 2020 in New York by MongoDB co-founder and former CTO Eliot Horowitz to make robotics as approachable as databases. Backed by Union Square Ventures and Battery Ventures.

Start free at viam.com. Contact: contact@viam.com. Updated November 2026.