Geodesic

The Operating Intelligence in the Physical World

Solving the Demo to Deployment Gap

Pre-seed deck · June 2026

Our thesis

Physical intelligence should adapt real time even after real world deployment, not stay frozen.

Current physical AI models

- Train once in simulation or on large scale data
- Deploy **fixed policy (frozen)**
- Fail under unseen scenarios, wind, contact changes, sensor noise, or new objects

Geodesic based models

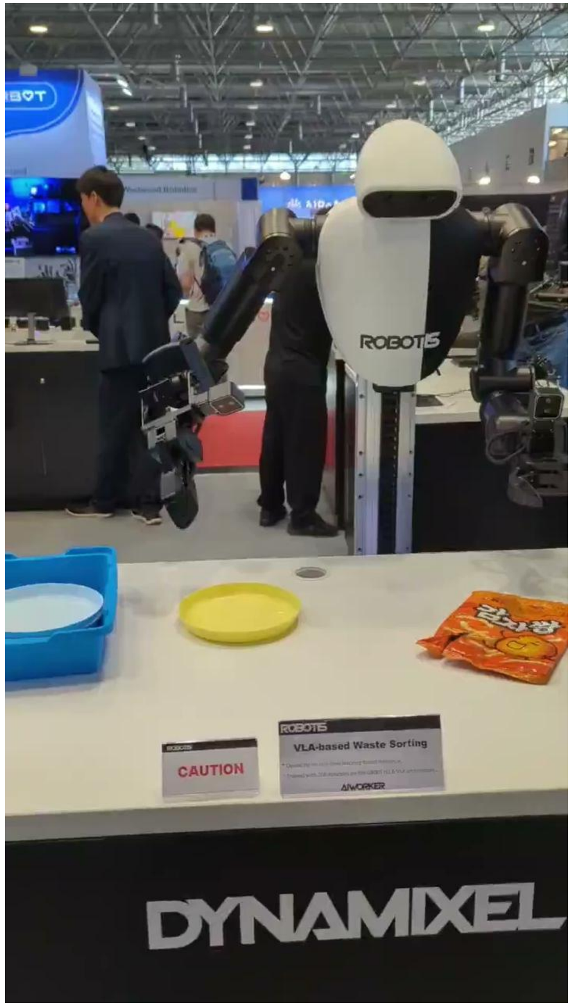
- **Focuses on completion of task** rather than predicting the next action
- **Adapt** policies, parameters, and evaluation loops continuously in real-time

Key idea **The next robotics breakthrough is not just a new AI model. It is a system that keeps improving physical intelligence as the environment changes.**

Solving the Demo to Deployment Gap

VLA deployment at recent ICRA robotics conference

Frozen policies such as VLA's **hallucinate** when deployed in reality



- The **true metric** of physical intelligence is **completion** of work rather than predicting the next action
- **Adaptability** at real deployment is necessary not optional.
- True physical intelligence is not equal to "learn from human data"
- Every task that humans do might not be optimal. So true physical intelligence must **not "only" rely** on human data.

The problem: Physical AI is stuck at development

Models look good in demos, then fail when the real world changes.

Compute barrier	Heavy robotics workloads need GPUs, simulators, physics engines, and environment setup.
Stack fragmentation	Tools, models, simulators, datasets, and training code are hard to compose and compare.
Deployment	Robot skills are tightly coupled to hardware, SDKs, and custom integrations.

What this means: robotics teams spend too much time wiring systems together and not enough time improving physical intelligence.

Real time adaptation in robotics

Frozen policies fail when the environment changes; adaptive systems can recover.

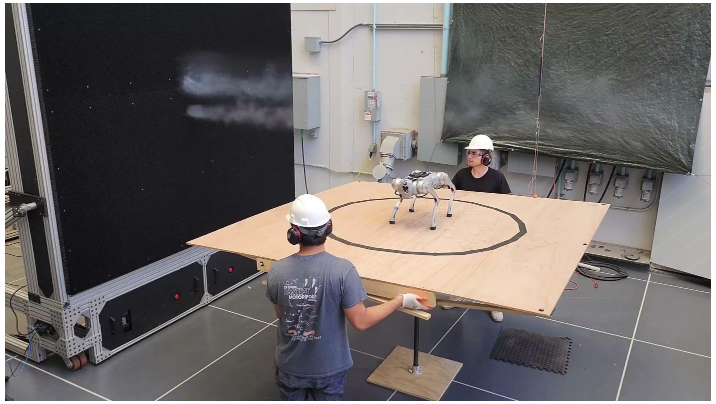
Robotic adaptation under wind disturbance

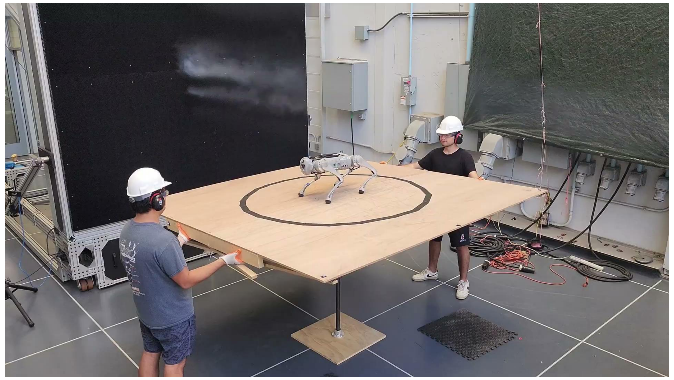
- State-of-the-art methods are often trained and then deployed as fixed policies.
- Real deployments face unseen cases such as wind, terrain changes, contact shifts, delays, and sensor noise.

Founder advantage

A decade of work in adaptive control, robotics, motion planning, learning, and real-world testing, not only software infrastructure.

This is why we understand the modes Geodesic must solve.





Models **must** have real time adaptation as one of their core features for deployment

Deployment comparison

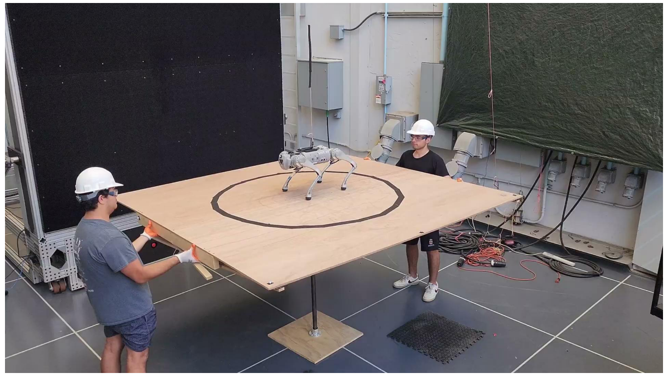
Frozen policies often fail when reality shifts. Geodesic is built to **adapt from real-world feedback**.

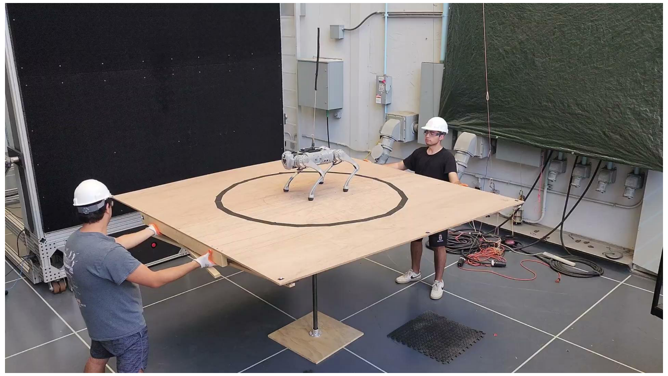
Frozen SOTA models

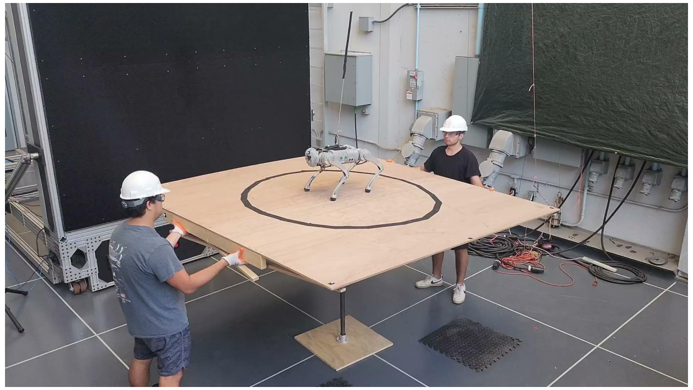
- Works in expected setup
- Performance drops under unseen conditions
- No feedback loop after deployment

- Trained on fixed distribution
- Breaks on new object / geometry / case
- Manual engineer tuning required

- Simulator success does not guarantee safety
- SDK + integration friction slows iteration
- Model remains static







Core point: physical intelligence cannot be frozen at deployment, it must keep improving as the real world changes.

Product: Geodesic OS

Agentic development environment for adaptive physical intelligence.

What it does

- Compose simulators, models, datasets, controllers, and evaluation tasks.
- Run experiments in isolated environments without dependency conflicts.
- Compare tools × models × algorithms on the same benchmark.
- Improve policies from failures, metrics, and real-world feedback.

Why this is non-trivial

Generic cloud and generic coding agents do not understand physical AI workflows.

Heterogeneous compute	Physics simulation, rendering, training, inference, and VLA workloads need different hardware and scheduling.
Robotics environments	ROS, Isaac, Gazebo, MuJoCo, PyBullet, drivers, sensors, and controllers create fragile dependency graphs.
Closed-loop evaluation	Robotics performance is not just unit tests; it needs simulation, metrics, stress tests, and failure analysis.
Agent safety and control	Agents need structured APIs to modify experiments without corrupting environments or invalidating results.

Difference: Geodesic gives agents a structured robotics operating surface.

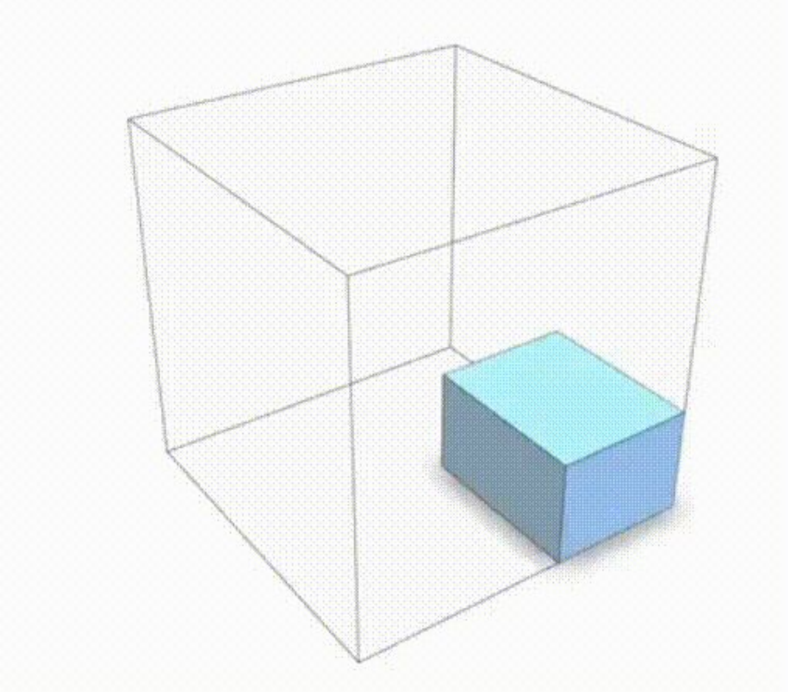
Early example: Agentic algorithm improvement over SOTA

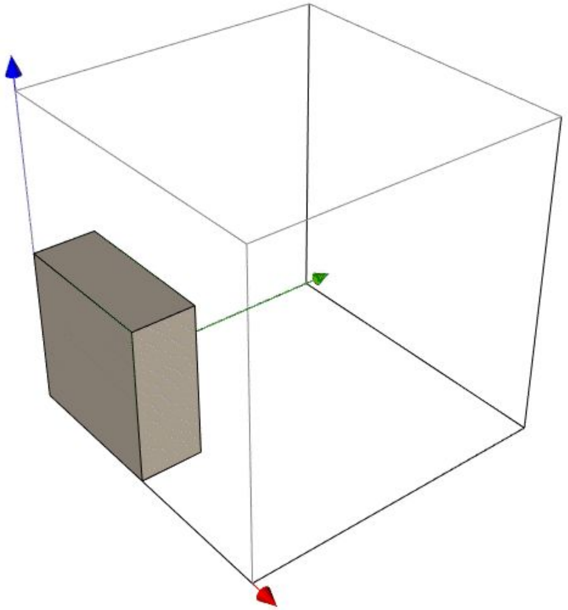
Geodesic platform is also designed to improve physical-world algorithms, not just host them.

3D bin packing / manufacturing logistics

Baseline / SOTA		Geodesic-improved
78%	→	**89%**

- AI Agents autonomously modify model choices, heuristics, architecture, and evaluation loops.
- Every run creates reusable knowledge for future physical AI workflows.





Business & GTM

Monetize the robotics workflow first; expand into adaptive intelligence on real robots.

1. Land: Geodesic OS subscription

- Sell to robotics / ML engineers & researchers
- Private beta around one workflow
- Team SaaS for agentic robotics development
- No rip-and-replace: works with existing repos, simulators, and models.

2. Expand: adaptive intelligence layer

- Layer sits on **top of existing policies & models**.
- Uses metrics, failures, and deployment feedback to propose updates and re-tests.
- Start with customer models &build proprietary adaptive models for priority tasks.

3. Hardware deployment GTM

- Move from algos. → hardware-in-the-loop → robot deployment.
- Prioritize location & manipulation of humanoids & robotic arms..
- Partner with robot OEMs, and industrial sites for deployment.

4. 12-month milestones

- 5–10 design partners running real robotics workflows.
- 2–3 paid pilots with clear workflow ROI.
- 1–2 hardware deployment demos using our proprietary intelligence layer.
- Convert early usage into recurring SaaS + runtime revenue.

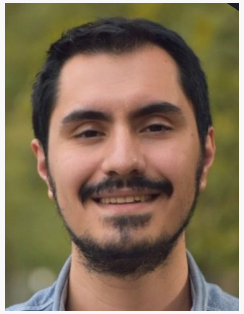
Business model: subscription for Geodesic OS + paid adaptive/deployment modules.

[illegible]

Design partners / early validators

Robotics and autonomy practitioners who can validate Geodesic OS on real workflows.

Isin Balci



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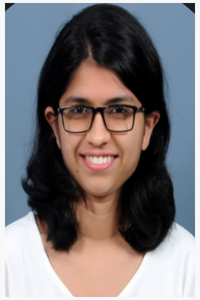
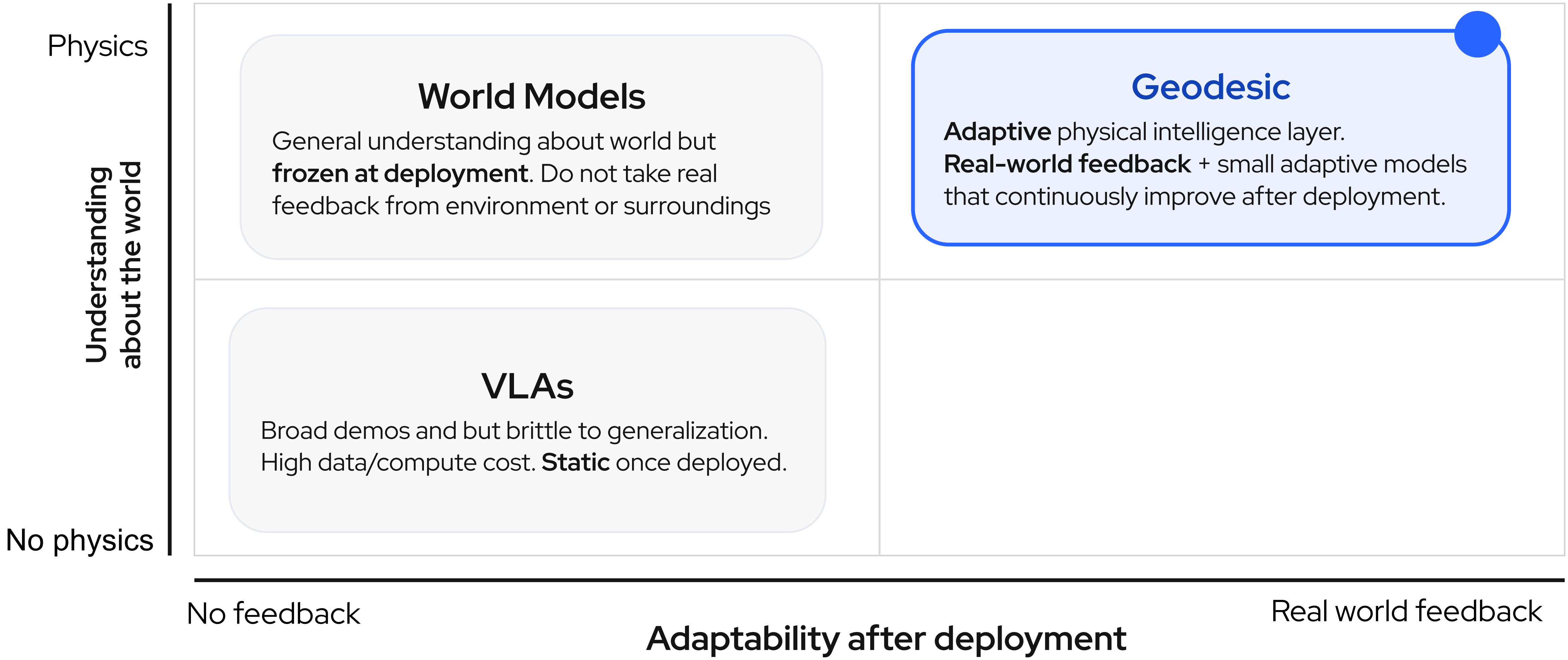


TENSOR

Competitive landscape



Physical intelligence will not be one giant frozen model; it will be a real world feedback loop that gets safer, and better in the real world.

Team and ask

Deep robotics research and engineering background.

Vrushabh Zinage

Co-Founder & CEO

Recent Caltech postdoc; PhD UT Austin; IIT Madras. Robotics, control, motion planning, learning, physical AI. 30+ papers; 170+ reviews.

Eric Verheyden

Co-founder & CTO

Computer Science at Caltech; robotics/software implementation; hands-on robotics projects and systems execution.

Raising $1M–$1.5M pre-seed to build Geodesic and prove adaptive physical intelligence via real world deployments.