

STATE16 / AUGUST 2026

PHYSICAL AI COMMUNITY



COVER STORY

From Lab To Site

Field deployments are replacing showroom demos. Inside: the models, machines, capital and operating evidence behind the shift.

Photograph / FieldAI

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Inside August

Research, machines, capital and the people moving Physical AI into the field.

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Verification and grounded action

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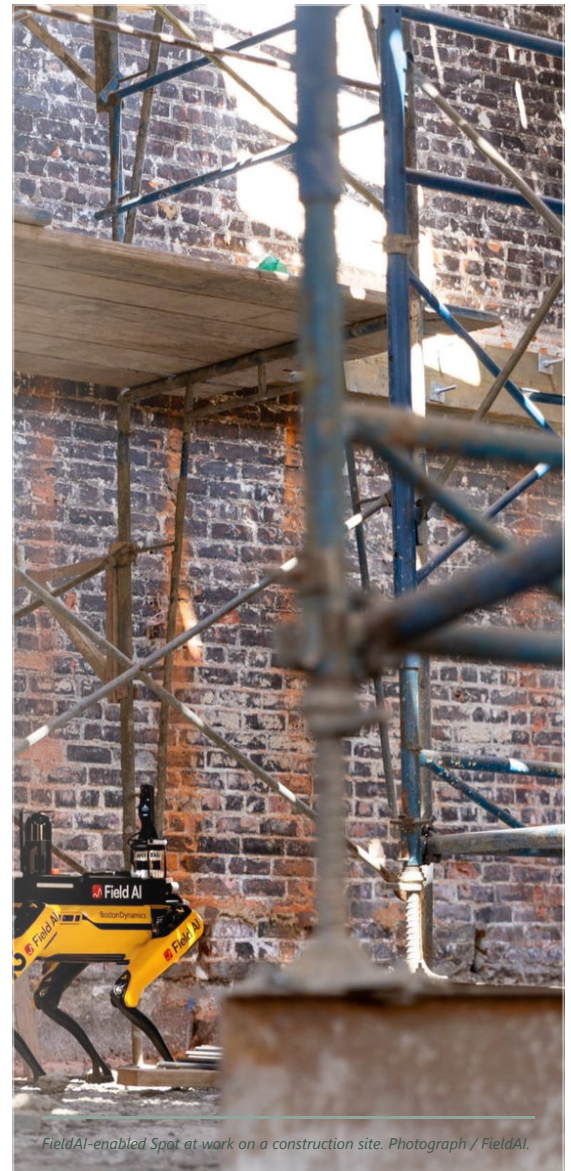
FieldAI works without a map

10 Researchers

Six researchers to follow

12 Community

Join the community



FieldAI-enabled Spot at work on a construction site. Photograph / FieldAI.

FOUNDER'S NOTE

Did The Robot Finish?

What caught my attention this month was not a faster arm or a cleaner demo. It was the number of teams asking a harder question: did the robot actually finish the job? That shift - from action to verification - matters. A machine in a lab can be reset. A machine in a factory, port or construction site must notice failure and recover. STATE16 exists for that operating reality. We need evidence that a system works, boundaries that operators understand, and a clear record of what happened when it did not. August brought useful progress on all three.

DR. BARAK OR / FOUNDER & CEO, STATE16

90%

OPENETA PASS@5

\$5.6B

CHINA ROBOTICS FUNDING

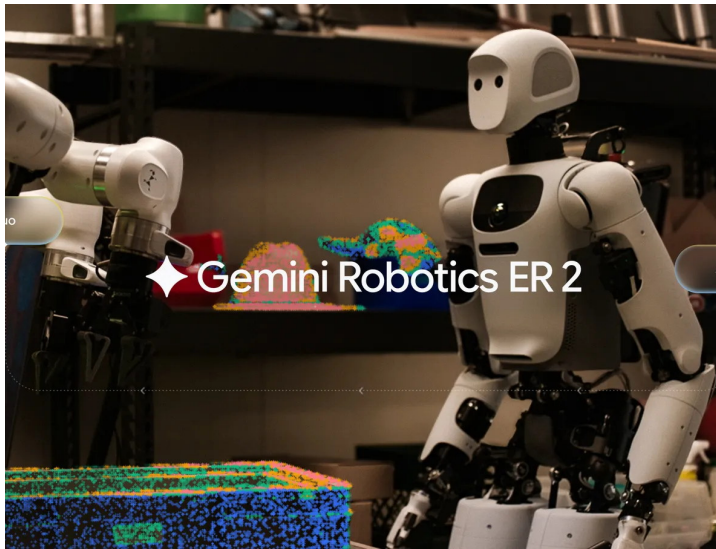
19.1K

H1 HUMANOID SHIPMENTS

MODELS + ALGORITHMS

Robot Control Closes The Loop

Three August releases focus on a practical problem: deciding what to do next, checking the result and recovering when a step fails.



Gemini Robotics ER 2 coordinates different robot bodies. Image / Google DeepMind.

OPENETA / OPEN SOURCE

One tool call at a time

A planner chooses a single tool, an interface checks it, and the robot returns a fresh observation. The abstraction makes an embodied task legible to general reasoning models.

Reported LIBERO Pass@5: Luna 47.7%, Terra 63.8%, Sol 90.0% across 130 tasks.

[Paper](#) [Code](#)

OPENETA REPORTED PASS@5

Codex Luna		47.7%
Codex Terra		63.8%
Codex Sol		90.0%

GEMINI ROBOTICS ER 2

ER 2 Watches Live Video

The high-level model inspects continuous video, tracks progress, orchestrates tasks and coordinates different robots. Google reports 4× execution speed and 0.96-second mean temporal error.

[Release](#)

IN-CONTEXT VLA / 6 AUGUST

Grounded Language Beats Narration

The authors find that free-form chain-of-thought can slow low-level control and teach a policy to narrate instead of act. Their alternative lets the VLA consume grounded spatial language and call perception tools only when needed.

[Paper](#) + eight real tasks

CLOSED-LOOP CONTROL

Observe

Live state

Ground

Spatial context

Act

One tool call

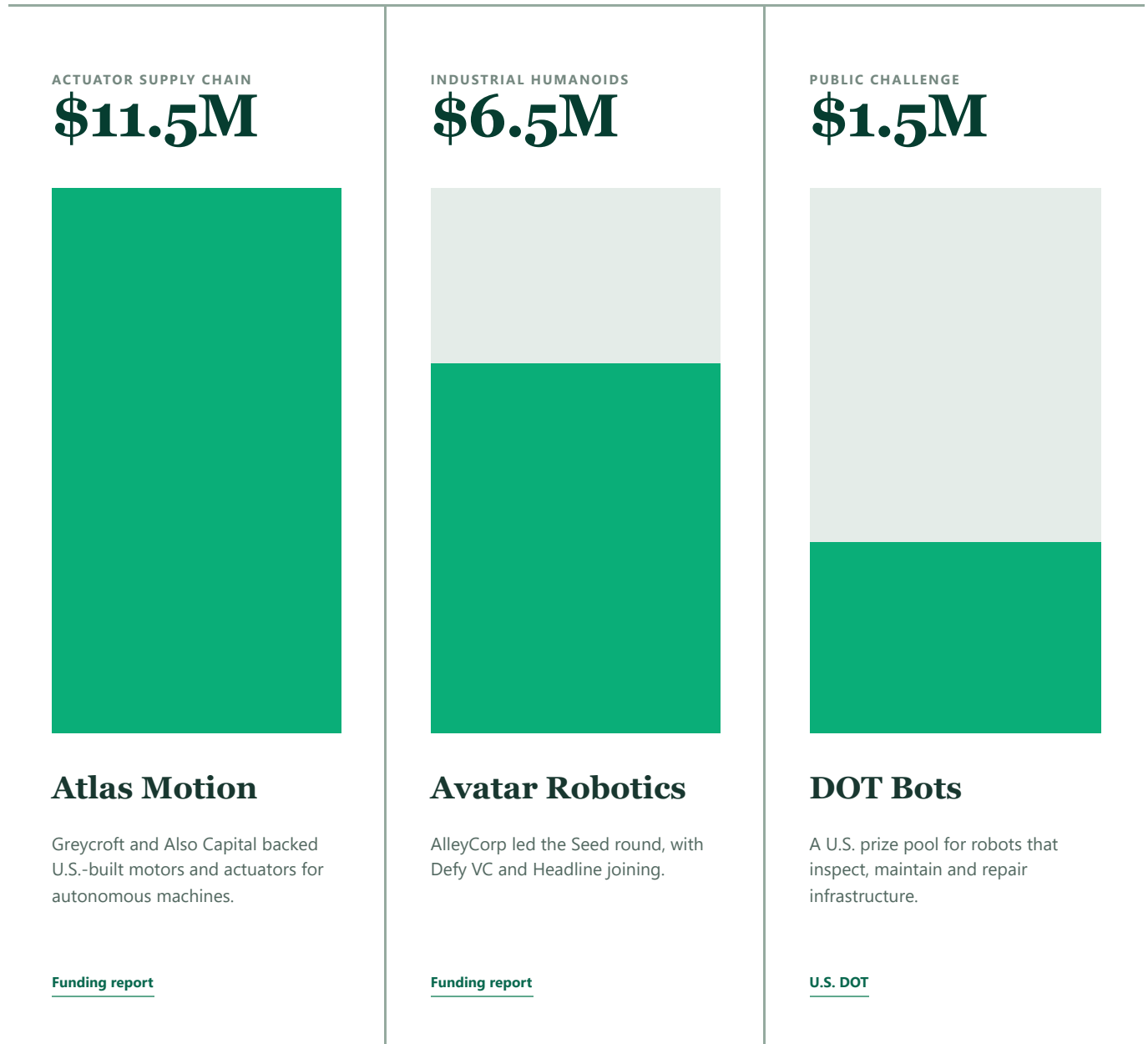
Verify

Fresh evidence

CAPITAL + POLICY

Three Routes Into Robotics

Equity, seed capital and public prizes backed three different layers of the deployment stack.



CAPITAL REACHES THE STACK

Components

Actuators



Machines

Humanoids



Infrastructure

Public deployment

ROBOTS + PLATFORMS

Machines Move Beyond The Lab

A vessel-drone pairing, a wheel-legged quadruped and a heavier field carrier show where product teams are placing their bets.



Pioneer underway at sea. Photograph / ACUA Ocean.

INTEGRATED PLATFORM

Pioneer Links Sea And Air

ACUA Ocean and Teledyne FLIR demonstrated a Pioneer unmanned surface vessel launching and powering a tethered SkyRanger R70. The shared system extends aerial sensing without relying on drone battery cycles.

2

days of trials

24/7

tethered
potential

1

mission stack

Demonstration

MOBILE QUADRUPED

Unitree adds wheels

The 25 kg AS2-W combines legged mobility with powered wheels. Unitree lists 6 m/s top speed, IP54 protection and an optional 150-TOPS computing module.

U AS2-W

PRODUCTION STARTS

Burro scales the carrier

Production of Grande 44 begins this month. Burro positions the platform for heavier payloads after reporting 750+ robots and 240,000+ autonomous miles across its fleet.

Burro

ONE MARKET, THREE ENVIRONMENTS

○
Sea + air
Pioneer / SkyRanger

○
Mixed terrain
AS2-W

○
Field work
Grande 44

CONFERENCES + EVENTS

Where Physical AI Meets Next

Four upcoming rooms for robotics research, field demonstrations, product launches and international standards.

18-19 AUG

SAN FRANCISCO

Actuate 2026

Foxglove convenes robotics leaders including Alex Kendall, Chelsea Finn, Sanja Fidler and Chris Urmson at Fort Mason.

 [Program](#)

19-23 AUG

BEIJING

World Robot Conference

More than 300 exhibitors, 2,000 exhibits and 150 product debuts are planned across the conference and expo.

 [Event](#)

22-26 AUG

BEIJING / REAL-WORLD TRIALS

World Humanoid Robot Games

Fifty events move beyond sport into factories, hotels and model homes, with autonomy encouraged across recognition and operation.

 [Official program](#)

27-31 AUG

INTERNATIONAL STANDARDS

Robotics standards week

ISO working groups address industrial robot energy measurement and safety requirements for mobile robots.

[Standards calendar](#)

29 AUGUST / SUBMISSION DEADLINE

World models at NeurIPS

A new workshop will connect predictive models, planning, robotics, autonomous driving and simulation.

[Open workshop website](#)

VOICES

What Leaders Said This Month

Two remarks worth revisiting, followed by a STATE16 essay on why complete systems now matter more than isolated demos.

GOOGLE DEEPMIND

“No single robot fits every task.”

The ER 2 launch describes a control layer that can hand work between a rover, a humanoid and an industrial arm.

[Gemini Robotics ER 2](#)

ALI AGHA / FIELD AI

“The real breakthrough is building robot brains that understand risk.”

Agha made the point in a construction deployment story: reliability depends on decisions made while the site is changing.

[FieldAI](#)

STATE16 ESSAY

Physical AI Enters Systems

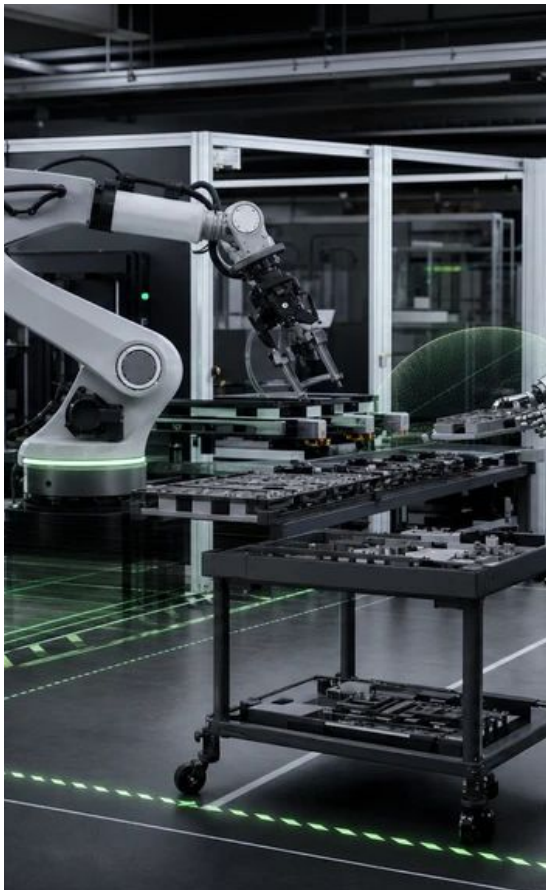
Physical AI is moving into its systems-integration phase, and my assessment is that this market is still being framed too narrowly.

Physical AI is not primarily a competition to build the most “human-looking” machine. It is a competition to engineer the highest-performance physical stack: one that can perceive a dynamic environment, maintain state, reason under uncertainty, generate and execute actions, operate inside a verifiable safety envelope, and continuously improve from historical fleet data.

In generative AI, the model can often be presented as the product. In Physical AI, the model is only one component inside a tightly coupled operating system.

DR. BARAK OR / FOUNDER & CEO, STATE16

[Continue reading on STATE16](#)



RECOMMENDED COMPANY

FieldAI Works Without A Map

FieldAI is building autonomy for construction sites and industrial spaces where layouts change, connectivity drops and fixed routes fail.



FieldAI-enabled Spot inside an active construction project. Photograph / FieldAI.

FIELD FOUNDATION MODELS

Models Across Robot Types

FieldAI says its models run on legged, wheeled, tracked and flying machines without a pre-built map, GPS or a constant cloud link.

On construction sites, Spot captures daily scans for BIM and digital-twin workflows. FieldAI and Boston Dynamics report more than 90% less time spent on inspection and documentation.

The company disclosed \$405 million across two rounds in 2025.

[FAIRi](#) [Deployment](#) [Funding](#)

3 CONTINENTS WITH DEPLOYMENTS	90%+ REPORTED TIME REDUCTION	\$405M RAISED IN 2025
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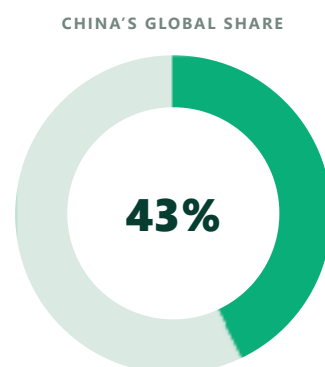
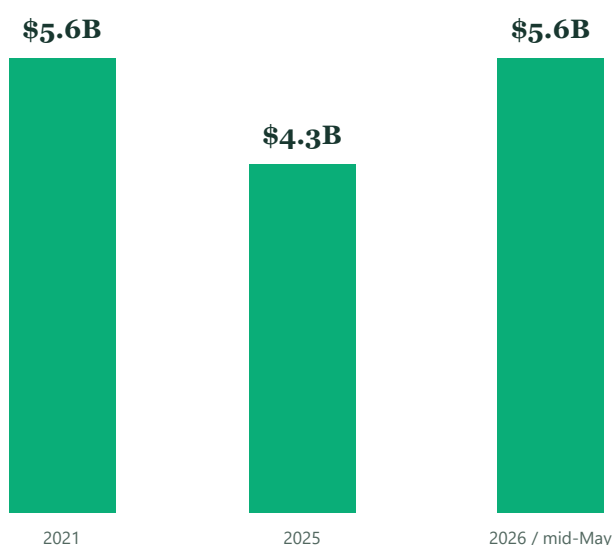
DEPLOYMENT PROFILE

ROBOT TYPES	NAVIGATION	OPERATIONS
Legged / wheeled / tracked / flying	No pre-built map or GPS	Edge-ready in changing sites

GLOBAL DATA

China Leads Funding And Output

Two datasets show the same direction at different speeds: robotics capital is rising in China, while humanoid production is concentrating there even faster.



China-based robotics companies raised \$5.6B across 176 deals through mid-May.

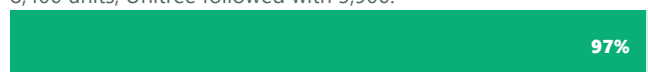
[Crunchbase data](#)

H1 HUMANOID SHIPMENTS

19.1K

Shipments Cluster In China

Smart Analytics Global estimates China-based makers produced more than 97% of first-half humanoid shipments. AgiBot led with 8,400 units; Unitree followed with 5,900.



[Bloomberg / SAG](#)

INVESTMENT MAP

Funding Passed Last Year's Mark

China recorded \$3.3B across 126 robotics deals in the first quarter and \$5.6B through mid-May.

[cb](#) [Crunchbase](#)

PRODUCTION MAP

Output Is More Concentrated

Funding remains geographically broad. Near-term humanoid output is far more concentrated in Chinese supply chains.

[Bloomberg / SAG](#)

RESEARCHER WATCH

Six Researchers To Follow

Recent work spans agent interfaces, robot reconfiguration, grounded control, industrial edge systems and visuomotor policy learning.

YC	Yitong Chen OpenETA: a tool-based interface that lets general agents operate robots through observation and action calls. arXiv	SS	Steven Swanbeck Robot recomposition that adds unseen software, hardware and compute payloads in the field within minutes. arXiv
JY	Jiarui Yang In-Context VLA: grounded language and selective tool use for fast closed-loop manipulation. arXiv	ET	Emma Takács A wireless, reconfigurable industrial cell combining 5G communications and edge visual inspection. IROS 2026
SH	Steven Hansen Gemini Robotics ER 2: video-based progress understanding and orchestration across multiple robots. DeepMind	SC	Shuo Cheng Research on generalizable visuomotor policies and efficient learning for embodied manipulation. TMLR

AGENT INTERFACES	FIELD RECONFIGURATION	INDUSTRIAL EDGE	ROBOT ORCHESTRATION	VISUOMOTOR LEARNING
Chen / Yang	Swanbeck	Takács	Hansen	Cheng

STARTUP RADAR

10 STARTUPS TO TRACK

Ten early teams focused on robot intelligence, industrial autonomy and the safety layer around deployment.

 STATE16 Tests robot decisions, safety boundaries and deployment evidence.	US / PUBLISHER	 Walden Robotics A stealth team developing general-purpose embodied intelligence.	US
 microAGI On-device models for robots with limited compute and connectivity.	US	 Gritt Autonomous machines for dirty, difficult and high-risk work.	US
 Mbodi Teaches industrial arms new tasks through language instructions.	US	 Generalist Trains one policy across manipulation tasks and robot hardware.	UK
 Sunday Home robots aimed at recurring household work.	US	 CarbonSix Robotic labor for variable manufacturing and material handling.	US
 RLWRLD Robot foundation models trained with reinforcement learning.	KR	 Avatar Robotics Industrial humanoids with remote recovery when autonomy fails.	US / \$6.5M

STATE16 PHYSICAL AI COMMUNITY

Join The Physical AI Community

Meet the engineers, researchers, founders and investors building machines that act in the real world.



Scan to join

Community access, events and new recordings.

Meet The Community

STATE16 brings engineers, researchers, founders and investors into one working community. Members share new research, deployment lessons, company updates and invitations to the next webinar.



Join



WhatsApp



GitHub



Hugging Face



LinkedIn

First webinar — now on demand

100+ LIVE / ~2 HOURS / 6 TALKS

Dr. Barak Or / Physical AI Guardrail

Ori Nachum / Neurosymbolic Control

Steven Palma / Open Robotics

[Watch the full playlist](#)

Dr. Mike Erlihson / VLA vs. WAM

Yorai Fainmesser / Investor View

Omri Eitan / Resilient Physical AI

MISSION

Help teams deploy Physical AI safely and prove what works.

VISION

Robots should earn trust through evidence, not spectacle.

STATE16

Guardrails and evaluation for embodied and autonomous systems.

WEBINAR #2 / OPEN CALL

Show What You Built

A few speaker slots remain for a new Physical AI development, technology or research project.

[Contact STATE16 →](#)