NeuroMesh

THE INTELLIGENCE LAYER FOR EMBODIED AI

The OS for every humanoid.

NeuroMesh is the **intelligence layer** every humanoid will run on.

CORTEX BRAIN LIVE | 3 SIGNED OEM MOUS | FEDERATED LEARNING MESH

THE PROBLEM

Robots are stuck. Everyone is rebuilding the same stack.

Foundation models exist. GR00T, OpenVLA, Pi0, Whisper, Gemini Robotics are now open or accessible. Hardware is shipping at scale. Yet every robotics company still rebuilds the same plumbing from scratch: simulation, safety, training pipelines, verification, payments. There is no standard layer that connects model to motion.

Rebuilt every time

Each humanoid OEM rewrites sim, teleop, RL, federation, payments, certification. Months of duplicated engineering before a single useful skill ships.

No verification layer

Foundation models hallucinate. Robots do not. There is no shared way to prove a decision was safe, attribute who trained it, or get it insured.

No marketplace

Skills, trajectories, and motion data sit trapped inside single companies. No standard rails for licensing, royalties, or fleet-to-fleet learning.

No regulatory path

Insurers and regulators have nothing to certify against. Every deployment is a one-off legal exercise. Adoption stalls before scale.

THE INSIGHT

Hardware is solved. Models are commoditizing. The missing layer is the OS.

Robotics is repeating the pattern that built PCs and smartphones. The platform layer wins, not the chip and not the app. We build the connective tissue every humanoid will run on.

01 / HARDWARE

Solved.

Unitree, Leju, Figure, Tesla, Boston Dynamics, AGIBOT. Capable humanoid bodies at $20K to $200K, shipping in 2026.

02 / MODELS

Commoditizing.

GR00T, OpenVLA, Pi0, Gemini Robotics. Open weights, fast iteration. The model is no longer the moat.

03 / THE LAYER

NeuroMesh.

The OS that sits between the model and the motor. Safety, verification, data, federation, payments. We do not train. We orchestrate.

THE PRODUCT

Five pillars. One operating layer.

NeuroMesh is the intelligence layer humanoid robots run on. We orchestrate open foundation models (GR00T, OpenVLA, Pi0, Whisper, Gemini Robotics) and wrap them with the missing infrastructure: safety, accountability, training, federation, and payments.

PILLAR 01

Safety

Control Barrier Certificates. Every motor command is filtered through a mathematically provable safety envelope before it reaches actuation.

PILLAR 02

Accountability

Proof of Inference plus Proof of Action. Cryptographic receipts for every decision and every motion. Who decided what, when, and why.

PILLAR 03

Training

Sim plus teleop plus on-robot RL. One pipeline from synthetic trajectory to fleet rollout. Quest3, Manus gloves, ROS2 native.

PILLAR 04

Federated Learning

Fleets learn from each other without leaking data. Skills propagate. The mesh gets smarter every shift.

PILLAR 05

Payments

x402 micro-tokens settle data, compute, and skill royalties. The economic rails for the humanoid economy.

We do not train foundation models. We orchestrate the open ones and make them safe, accountable, federated, and payable. That is the layer every humanoid will run on.

LIVE NOW

Cortex Brain.

A voice-controlled Unitree G1 humanoid running in your browser. Real physics. Real grasping. Try it now.

TRY IT brain.neuro-mesh.io/playground

G1	Voice	Real	Browser
UNITREE HUMANOID	WHISPER STREAMING	PHYSICS + GRASP	NO INSTALL REQUIRED

MOVEMENT DATA ENGINE

Three phases. From synthetic to autonomous.

The bottleneck for humanoid intelligence is high-quality motion data. We solve it in three phases, with the first phase already live in production.

P1 LIVE

Synthetic Trajectories

135 motion clips already generated. GMT, reinforcement learning, jump, walk, squat. Zero millimeter penetration. Sim-first pipeline running today.

P2 60 DAYS

Teleop SDK

Quest3 plus Manus gloves plus ROS2. Sim-first cost of $11K per setup, $50 per trajectory. Capture human motion, replay on any humanoid.

P3 PHASE 3

NeuroOS-H Autonomy

Robots collect their own training data in production. Federated upload, royalty back to source fleet. Data flywheel turns on.

135	0 mm	$50	$11K
TRAJECTORIES LIVE IN P1	PENETRATION ERROR	COST PER TELEOP TRAJECTORY	FULL P2 CAPTURE RIG

DEMO · IT IS REAL TODAY

Two products. Both running in production.

This is not a deck of renders. The brain is live, the app is live, and the data engine has produced 135 trajectories. Investors can interact with both before the meeting ends.

Cortex Brain · Playground

`brain.neuro-mesh.io/playground`

Open the URL on any laptop. Speak to the G1 humanoid. Watch it walk to the table, pick a box from table_a, place it on table_b, and verify the action. Real physics, real attachment, real release. Built on our orchestration of GR00T plus Whisper.

NeuroMesh MVP · App

`app.neuro-mesh.io`

The control surface. 135 trajectories indexed and searchable. Skill library. Fleet roster. Safety envelope monitor. Federated learning telemetry. This is what a robotics ops team actually uses, day to day.

Ask any robotics engineer to try Cortex Brain in their browser. We have not yet met one who has not stayed past the meeting.

WHY NOW

Five tailwinds converging in the same eighteen months.

The window to set the standard layer is open. The humanoid stack is rebuilding itself in real time, with no incumbent OS in place. Whoever ships the connective tissue first will lock in the next decade of robotics economics.

TAILWIND 01

Humanoid OEM Explosion

Tesla Optimus, Figure, Unitree, Leju, Boston Dynamics, AGIBOT all shipping units in 2026. None has a software platform.

TAILWIND 02

Models Commoditized

GR00T, OpenVLA, Pi0, Gemini Robotics open or accessible. The differentiation moves up to the orchestration layer.

TAILWIND 03

Regulatory Tailwinds

EU AI Act humanoid clauses live 2026. US state-level robotics frameworks emerging. Compliance becomes a procurement gate.

TAILWIND 04

China Robotics Race

National strategy, state-funded fleets, mass humanoid deployment in factories. A global standard layer is the only neutral ground.

STRATEGIC TRACK

Insurance + Regulatory

Active conversations with global reinsurers and regulators on humanoid liability. NeuroMesh certification stack designed to be the underwriting basis.

Standard layers get set once per platform shift. PC, mobile, cloud, robotics. The window for the humanoid OS is open right now.

TRACTION

Three signed humanoid OEM MOUs. Both products live in production.

Three top humanoid OEMs signed. Cortex Brain and the agent platform live. Federated learning roadmap underway.

SIGNED MOU · ANCHOR

Leju Robotics

KUAVO 5 anchor partner. 37 to 41 DoF humanoid at $115K. Sim-first deployment 2026.

SIGNED MOU

Lingyi · "Ling G"

Cognitive runtime integration partner. Joint roadmap with our orchestration stack.

SIGNED MOU

BridgeDP · AGIBOT A2

AGIBOT A2 deployment bridge. Federation, sim, certification through our layer.

PLATFORM

app.neuro-mesh.io

Live agent platform. 21 production agents. 4 showcase apps. Foundation for the broader robotics network.

3
SIGNED HUMANOID OEM MOUS

135
TRAJECTORIES LIVE IN DATASET

2 / 2
PRODUCTS LIVE (BRAIN + APP)

ANCHOR CUSTOMER · LEJU ROBOTICS

KUAVO 5. Our flagship deployment.

Leju is one of the most credible humanoid OEMs to scale a production-ready bipedal robot. NeuroMesh is the operating layer they ship with. Sim-first, validated, and on a path to 5,000+ units shipped.

DEGREES OF FREEDOM
37 to 41 DoF

CONTROL BUS
EtherCAT · ROS1

UNIT COST
$115,000

DEPLOYMENT
Sim-first, 2026

INTEGRATION LEAD

Benedikt Kalwoda runs the Leju integration end to end. EtherCAT bring-up, ROS1 bridge, safety envelope tuning, certification track owned in-house.

Path to 5,000+ units shipped. Once KUAVO 5 ships at scale, NeuroMesh becomes the default orchestration layer for the most-shipped humanoid in the field.

Leju gives us the reference deployment every other OEM measures against.

BUSINESS MODEL

Four legs. Recurring, defensible, compounding.

Each leg reinforces the next. Cortex Trust forces certification revenue. SaaS captures the daily-use seat economics. Strategic tiers monetize the largest customers. The data marketplace becomes the long-term flywheel.

LEG 01 · CORTEX TRUST

Trust Platform

$500K setup

Plus $50K per robot per year, plus $200K recertification per change. Certification stack as the moat.

LEG 02 · SAAS

Tiered SaaS

$999 to $15K / mo

Pro at $999 to $2,999. Enterprise at $5K to $15K. Foundation at $250K to $2M per year for the largest OEMs.

LEG 03 · STRATEGIC TIERS

Mythos · Fable

Anthropic-style

Mythos for government and defense agencies. Fable for public-sector and large enterprise. Sole-source pricing.

LEG 04 · MARKETPLACE

Movement Data

$5 to $50 / traj

Take rate on every trajectory bought, sold, or licensed across the mesh. Network-effect economics.

Recurring revenue scales with units in the field. Certification scales with regulation. Marketplace scales with the mesh. Three independent compounding curves.

PRICING & IDEAL CUSTOMER PROFILE

Mid-tier robotics is the wedge. Foundation tier is the prize.

ICP is mid-tier robotics OEMs at $5M to $30M revenue, plus university research labs. The Foundation tier is reserved for the top 20 robotics firms and government agencies.

TIER	PRICE	WHO BUYS	WHAT THEY GET
University	Free to $499 / mo	Research labs, robotics PhDs	Cortex Brain access, sim sandbox, 135-trajectory library. Builds top of funnel and trains future buyers.
Pro	$999 to $2,999 / mo	Small robotics teams, integrators	Full orchestration, teleop SDK, federated learning client. Self-serve onboarding.
Enterprise	$5K to $15K / mo	Mid-tier OEMs ($5M to $30M ARR)	Multi-fleet management, certification track, white-glove integration support.
Foundation	$250K to $2M / yr	Top 20 robotics firms	Sole-source orchestration, dedicated engineering, source access, governance seat.
Mythos / Fable	Custom · Sole-source	Government & defense agencies	Sovereign deployments, air-gapped certification, national security clearance levels.

MARKET SIZE

A $150B+ humanoid software TAM by 2030.

By 2030, conservative analyst consensus puts shipped humanoids at 3M+ units, with software revenue per unit averaging $50K per year. NeuroMesh is targeting 10 to 15 percent capture as the standard intelligence layer.

TAM · 2030

$150B

3M+ shipped humanoid units. $50K average software revenue per unit per year.

NeuroMesh target capture: **10 to 15%**
That is **$15B to $22B** of recurring software revenue passing through the layer.

Adjacent & expansion markets

- **Humanoid liability insurance.** Reinsurers entering the category. Multi-billion dollar premium pool by 2030. NeuroMesh certification stack designed to be the underwriting basis.
- **Sim and simulation platforms.** Every certified deployment runs sim-first. Compute and tooling layered on top of the orchestration stack.
- **Movement data licensing.** Trajectory marketplace becomes the iTunes of motion. Royalties to skill creators, take rate to the mesh.
- **Government and defense.** Mythos and Fable tiers. Sovereign humanoid deployments require certified orchestration with audit trails.
- **Federated learning compute.** Cross-fleet skill propagation needs metered infrastructure. The mesh charges for it.

COMPETITION

Everyone else is vertical. We are horizontal.

The category is forming. Most named players are vertically integrated or model-only. NeuroMesh is the only horizontal, multi-vendor, open-orchestration, regulator-aligned layer in the field.

Physical Intelligence

Closed-source foundation model. No platform layer. No marketplace. Licenses model access only.

We orchestrate Pi0 as one of many models. We are not a competitor to them. We are the substrate they ride on.

Skild AI

Research-heavy. Generalist robotic policy. No commercial deployments yet. No safety or insurance layer.

We ship in production today. Three OEM MOUs. Live platform. Safety envelope live.

Covariant

Warehouse-only. Grasping and bin-picking. Vertical SaaS for one application.

Horizontal across all humanoid use cases. Multi-vendor. Not tied to one form factor or workflow.

1X Technologies

Vertical hardware OEM. Builds and sells robots. Closed software. Single product line.

We are platform, not hardware. We run on 1X, Leju, Unitree, Figure, and anything else with motors.

NeuroMesh

Horizontal. Multi-vendor. Open-orchestration. Regulator-aligned. Insurance-certified. Live products. Three signed OEM MOUs.

We are the only category that wins by being neutral. Every OEM wants the standard layer. None wants to depend on a rival.

MOAT

Four reinforcing moats. Each one compounds the others.

Defensibility is not a slogan. It is structural. Data network effects compound with every shipped unit. Certifications stack. OEM lock-ins accumulate. Safety envelope is the regulatory chokepoint.

01

Certification Recertification Chokepoint

Any change to a NeuroMesh-orchestrated deployment requires safety recertification through our envelope. Six-month lead time per change. Switching providers means re-underwriting the entire deployment.

02

Data Network Effects

Every shipped robot contributes trajectories to the mesh. Every new skill learned on one fleet propagates federated to the others. The mesh literally gets smarter as it grows.

03

Stacked Safety Certifications

EU AI Act, US state-level robotics, ISO 13482, IEC 61508 SIL ratings. NeuroMesh stacks them once. Every customer inherits the certification basket. Replicating that takes years.

04

Anchor OEM Lock-In

Leju, Lingyi, BridgeDP MOUs signed before the market formed. Switching costs scale with units shipped. Every quarter that passes, the lock-in deepens.

GO-TO-MARKET

Anchor first. Mid-tier next. Marketplace last.

A staged GTM, year by year, designed to compound the moats. We start with the highest-credibility anchor deployments, expand to the mid-market wedge, then flip on the marketplace and Foundation tier.

YEAR 1 · 2026

Anchor Deployments

- Leju KUAVO 5 sim-first ships
- Lingyi Ling G integration
- BridgeDP AGIBOT A2 bridge live
- Internal certification process operational

YEAR 2 · 2027

Mid-Tier Wedge

- 10 mid-tier OEM customers signed
- Enterprise tier scaling
- University tier funnel established
- Federated learning network active

YEAR 3 · 2028

Foundation Tier

- 50 paying OEM customers
- Foundation tier launched
- Mythos government pilots
- Default-alive on operating cash

YEARS 4 TO 5 · 2029–2030

Marketplace & Sovereign

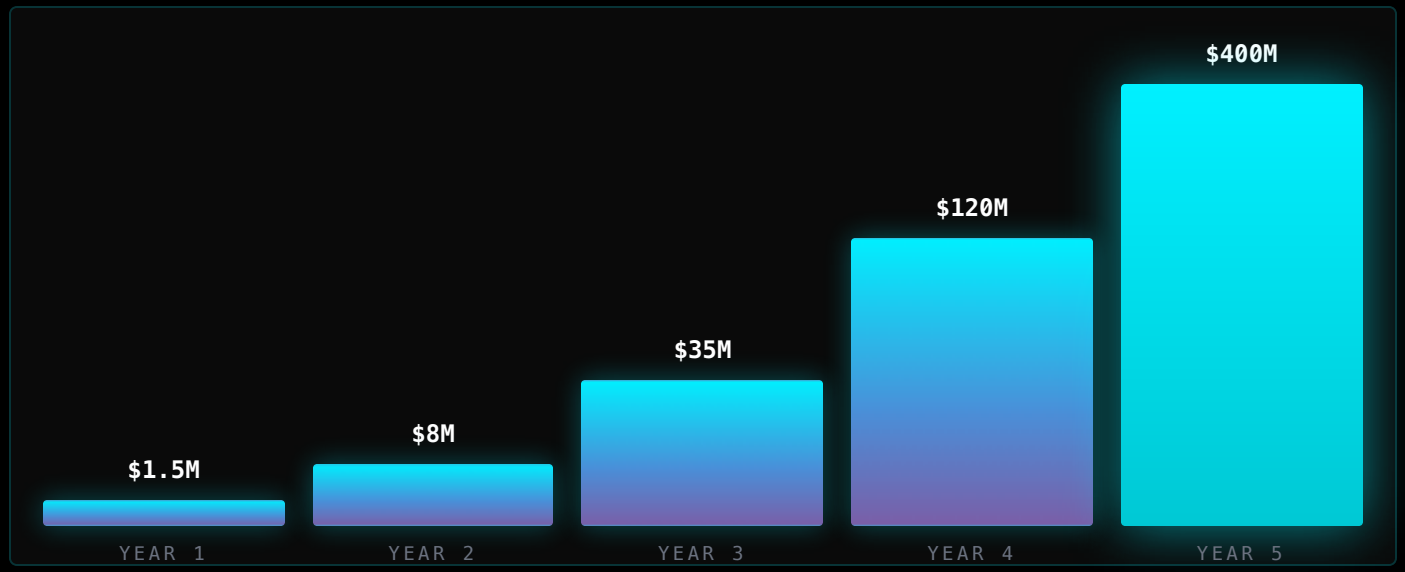
- Movement data marketplace at scale
- Take-rate flywheel compounds
- Mythos and Fable government contracts
- 100K+ humanoids on the mesh

FINANCIALS

ARR scales 270x over five years. Default-alive by Year 3.

Software economics. Gross margins north of 75 percent. Recurring revenue compounds with units shipped. Path to default-alive by Year 3, then accelerating cash generation.

ARR TRAJECTORY · $M



KEY METRICS

75%+
GROSS MARGIN

Yr 3
DEFAULT-ALIVE

270x
ARR MULTIPLE Y1 TO Y5

$400M
Y5 ARR TARGET

Mix shifts from anchor integration to recurring SaaS to marketplace take-rate. Each curve has independent compounding mechanics.

TEAM

Operators who have shipped robots, capital, and code.

Distributed, remote-first, with a heavy bias toward engineers who have shipped real things. Four leaders covering CEO, CTO, CGO, and architecture. Hiring concentrated on robotics ML and OEM integration.

NM

Nathan McArthur

CHIEF EXECUTIVE OFFICER

Ex-robotics operations. Built and led delivery teams across multiple humanoid programs. Sets product direction and runs OEM partnerships.

BK

Benedikt Kalwoda

CHIEF TECHNOLOGY OFFICER

Robotics and ML lead. Owns the orchestration stack end to end. Runs the Leju KUAVO 5 integration personally.

NE

Nabil El-Far

CHIEF GROWTH OFFICER

Capital markets and government relations. Drives strategic partnerships and sovereign tier conversations.

AK

Alex Kraberger

ARCHITECT · SHADOW FOUNDER

System architect. Authored the original NeuroMesh OS design. Quietly shapes the platform from the inside.

Distributed, remote-first. The team is sized to ship, not to perform. Every hire from here on goes against robotics ML or OEM integration.

12-MONTH ROADMAP

Five hard deliverables. Twelve months.

The next year is execution, not exploration. Cortex Brain v3, teleop SDK, certification stack v1, two anchor deployments live, federated learning launched. Each deliverable unlocks the next stage of compounding.

Q1 · 2026

Cortex Brain v3

- Multi-skill chaining
- Long-horizon planning
- Browser playground v3
- Public API beta

Q2 · 2026

Teleop SDK · P2

- Quest3 capture pipeline
- Manus glove integration
- ROS2 native bridge
- $50 per trajectory unit cost

Q3 · 2026

Certification Stack v1

- Audit pass for KUAVO 5
- Safety envelope certified
- Recert process documented
- Per-unit cert unit economics proven

Q4 · 2026

Anchor Deployments + Federation

- Leju and Lingyi in production
- Federated learning v1 launched
- Cross-fleet skill propagation
- Marketplace alpha

Each milestone unlocks recurring revenue. Certification stack opens the per-unit per-year revenue stream. Federation opens the marketplace flywheel.

THE GRAND VISION

Every robot on Earth, running on one intelligence layer.

HORIZON 01
2026 to 2027

The Foundation

- **100 humanoid units** deployed on NeuroMesh across 3 anchor OEMs.
- First robots certified for **unsupervised work** in regulated environments.
- First **commercial liability policies** written for NeuroMesh-certified humanoid deployments.
- Cortex Brain becomes the **default cognitive runtime** for new robotics startups.

HORIZON 02
2028 to 2030

The Network

- **100,000 humanoids** on the mesh across 50+ OEMs.
- Federated learning compounds. Every robot makes every other robot **smarter**.
- NeuroMesh certification becomes a **regulatory requirement**, not a commercial preference.
- Movement data marketplace clears **1B+ trajectories** per year.
- Robots autonomously trade compute, data, and skills via the **payments layer**.

HORIZON 03
2030 and beyond

The Operating Layer of the Physical World

- **10M+ humanoids** globally, all running on NeuroMesh.
- Critical infrastructure. **Like AWS for the cloud, NeuroMesh for embodied intelligence.**
- Every factory, hospital, home, and warehouse runs robots that **learn, prove, and pay** through the mesh.
- The line between digital and physical AI dissolves. NeuroMesh is the **operating system of the physical world**.

We are building the intelligence layer for the next century of work.