Finnacl Research

R2 · EXECUTIVE SUMMARY

Executive Summary (free edition)

The findings in brief — free edition

As of 2026-09-09

Every figure carries its source and its as-of date.

Robotics & Physical AI: What's Out There?

Executive summary — free edition

Finnacl Research · September 2026 · The full report covers 12 core companies, 20+ more across the incumbents, autonomy operators, and suppliers, the private humanoid roster, nine robotics funds, and a quarterly-scored early-warning scorecard.

The answer

Three businesses at three maturities — and the market prices them as one.

1. **Deployed and profitable.** 4.66 million industrial robots are at work in the world's factories; half a million more were installed last year, for the fourth year running. Surgical robots did 3.15 million procedures in 2025 (+18%). Warehouse automation is booked years ahead. AI is making this installed base more valuable — it removes the programming that made automation expensive to change. This is where the money is made today, and it trades at ordinary industrial multiples.
2. **Deploying.** Robotaxis have crossed into paid service — half a million paid rides a week at the leader — but the best data also shows a plateau nobody announced: that ride count has been flat for six months while the operator expanded from 10 metros to 14. Tesla reports miles, not rides, and they're flat too.
3. **Promised.** General-purpose humanoids: the models are improving fast, the hardware cost is falling (a Chinese humanoid lists at $13,500), and the money has arrived — roughly **$78 billion of private-company valuations** on undisclosed or nil revenue. Against that: about **two thousand** full-size humanoids sold and paid for by the one company that reports audited numbers; Tesla's own count, "several hundred units… for learning, not productive tasks"; and only ~10% of last year's production doing real work.

Valuation, in one sentence: the companies that ship robots at scale trade at 22–34 times next year's earnings; Tesla trades at 186 times and the newly listed Unitree at 259 — **623.7× on the earnings it has actually reported**. Those two prices *are* the humanoid premium.

The three numbers that matter

4.66 million	Industrial robots in operation — the robotics business that exists
~$78B vs ~2,000	Private humanoid valuations vs audited paid full-size humanoids sold
700K vs 6.5M vs 10–30M	Forecasts for annual humanoid units in 2035 — from the industrial-research view to the banks. The 2025 actual: ~17–20K

What would change our mind

The full report scores eight measurable markers every quarter — deployed growth, verified humanoid deployments, unit cost, autonomy scale, private-capital behavior, platform pull-through, China's cost curve, and thematic fund flows. Today's reading: one green (the deployed business), one red (private capital — step-ups on no deployments, the froth signal firing), six amber. We publish the scorecard so readers can check us, not trust us.

What's in the full report

The value-chain map · the three segments graded contracted / operating / announced · the humanoid roster with every claim marked verified or claimed · Tesla's Optimus timeline in Tesla's own words · what the buyers say (a 23% satisfaction rate) · the forecast-spread table · 12 core-company profiles with what each price assumes · the fund purity table (the largest "robotics" funds share almost nothing but Nvidia; all US humanoid funds together hold ~$490M) · the client Q&A · full sourcing.
