

Who controls which layer of the *Humanoid Robotics Stack*?

Eight companies. Five layers of the production stack. **Today, Musk and XPeng are tied at four out of four.** The fifth layer — orbital training compute — is being planned by only one of them, and requires a launch company nobody else has to operate at lowest cost.

■ Owned
■ Bought or Partnered

LAYER	THE ROBOT MAKERS							PLATFORM
	Musk Empire VERTICAL	Figure	1X	Agility	Aptronik	Unitree	XPeng VERTICAL	NVIDIA PLATFORM ONLY
Foundation model Vision · language · force · action	Optimus NN + Grok own frontier lab	Helix 02 own VLA	Redwood + 1X WM own VLA	NVIDIA stack no VLA, but own LSTM	Gemini + GR00T partnered	UnifoLM-VLA own, Qwen-based	VLA 2.0 own, open-sourced	GR00T N1.7 licensed out
Training compute · Earth Ground GPU clusters	Colossus + Cortex ~400k+ GPUs	Cloud rented	Cloud rented	NVIDIA infra	Google + NVIDIA	Mixed clusters	Own clusters from AV business	DGX Cloud own GPUs
Hardware Manufacturing	Tesla + SpaceXAI giga-scale lines	Figure BotQ, currently ~1/hour	1X Hayward plant	RoboFab 10k/year peak	Aptronik + Jabil Austin	Hangzhou 5,500+ shipped	110k m² facility groundbreaking '26	No robots by design
Inference chip Onboard the robot	A15 own silicon	NVIDIA undisclosed	NVIDIA Jetson class undisclosed	NVIDIA Jetson Thor	NVIDIA Jetson Orin	NVIDIA Jetson Orin / Thor	Turing AI x3 own, 2,250 TOPS	Jetson Thor own silicon
► TOMORROW — the asymmetric layer that breaks the tie								
Training compute · Orbit Space-based AI infrastructure	SpaceXAI + Terafab AI Sat + D3 chip	Not pursuing	Not pursuing	Not pursuing	Not pursuing	Not pursuing	Not pursuing	Not pursuing
LAYERS OWNED of 5 total	●●●●● 5/5	●●●●● 2/5	●●●●● 2/5	●●●●● 1/5	●●●●● 1/5	●●●●● 2/5	●●●●● 4/5	
STRATEGY	<i>Vertical everything</i>	<i>Industrial-first AI</i>	<i>Home-first data</i>	<i>First-mover logistics</i>	<i>Body specialist</i>	<i>Cost leader</i>	<i>China's Tesla play</i>	<i>Arms dealer</i>