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The State of Asian AI×IoT for Edge Manufacturing (2026)

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Usage note: This is a descriptive research report. It describes the state of the domain using named datasets and vendor-disclosed information. It does not rank vendors, score them against one another, or recommend purchases. Numbers drawn from third-party datasets are cited inline. Figures that are not independently verified are labeled as estimates. Readers are expected to weigh the evidence and draw their own conclusions.

Introduction

This is the first edition of a recurring BestAIFor report on the intersection of artificial intelligence, the Internet of Things, and edge computing in Asian manufacturing. The subject is narrow on purpose. We look at how AI models running on or near the factory floor — rather than in a distant cloud — combine with sensors, networks, and robots to change how goods are made. The report covers hardware platforms, machine-vision systems, industrial and collaborative robots, autonomous mobile robots, humanoid pilots, and the connectivity and operating-system layers that tie them together. Geographically, it centers on China, Taiwan, South Korea, and the wider Asian manufacturing base.

The report is written for three audiences: operators and engineers evaluating the field, analysts and journalists tracking industrial AI, and buyers who want a neutral map before they talk to sales teams. It does not tell any of them what to buy.

The reason to trust it is method, not opinion. Every hard number here comes from a named, dated source: the International Federation of Robotics (IFR) *World Robotics 2025* report for robot installations, stock, and density; the World Economic Forum (WEF) *Global Lighthouse Network* for advanced-factory counts; and BestAIFor's own news-RSS monitoring for the July 2026 trade-press signals. Vendor descriptions rely on

what each company publicly discloses. Where a precise figure is not verifiable, we say so plainly and describe the situation qualitatively instead. The goal is a document that stays accurate when someone checks it, not one that sounds impressive at a glance.

Top Takeaways

1. China installed more industrial robots in 2024 than the rest of the world combined. China installed 295,000 industrial robots in 2024, which the IFR reports as 54% of global installations that year (IFR *World Robotics 2025*). That single-country share above half is the defining structural fact of the domain. It means the physical substrate on which industrial AI runs — arms, cells, and lines — is being laid down fastest in China. Every software and edge-AI layer discussed in this report sits on top of that installed base.

2. China's operational robot stock passed two million units, the largest of any country. China's operational stock of industrial robots exceeded 2,000,000 units in 2024 (IFR *World Robotics 2025*). Stock, unlike annual installations, reflects accumulated capacity that AI systems can be retrofitted onto. A large installed base is a large addressable market for edge-AI upgrades such as vision-guided picking and predictive maintenance. The stock figure explains why so many of the featured vendors sell software and vision that attach to robots already on the floor.

3. China's robot density is rising fast but still trails the world leaders. China reached 166 robots per 10,000 manufacturing employees in 2024, up 17% year-on-year (IFR, using China NBS labor data). That growth rate is steep, yet the absolute level sits far below South Korea's 1,220 — the world's highest — and below Western Europe's 267 and North America's 204. China is above the Asia average of 131 (IFR *World Robotics 2025*). The gap between rapid growth and a mid-tier density level signals that adoption still has a long runway.

4. South Korea, not China, leads the world on robot density. South Korea recorded 1,220 robots per 10,000 manufacturing employees in 2024, roughly 7.3 times China's 166 and about 4.6 times Western Europe's 267 (IFR *World Robotics 2025*). Density measures intensity of automation per worker, not total volume. On that intensity measure, the Asian leader is Korea, driven by its electronics and automotive sectors. The two Asian stories — China's volume and Korea's intensity — are distinct and should not be merged.

5. The WEF Lighthouse Network grew about 26% in 17 months, and China holds the largest national share. The WEF Global Lighthouse Network reached 238 sites by June 2026, up from 189 in January 2025 (WEF *Global Lighthouse Network 2025*). China held roughly 80 of the 189 sites in January 2025, about 42% — the largest national share of any country. Six of the 12 newest sites announced in September 2025 were in China. Lighthouse sites are third-party-validated advanced factories, so this concentration indicates where frontier deployment is being independently recognized.

6. A concentrated burst of embodied-industrial activity landed in July 2026. In a single week, BestAIFor news monitoring recorded four distinct signals: JD.com announced a $1.4B "RoboBase" robot-facility network with a Guangzhou groundbreaking; Unitree partnered with Hunan Steel to deploy legged robots for steel-plant inspection; UBTECH began piloting Walker S humanoids on assembly lines; and a

China embodied-AI industrial-deployment conference was held in Beijing (BestAIFor news-rss monitoring, July 2026). The clustering matters more than any one item. It marks a shift of embodied robots from demonstration toward early industrial use.

7. The featured landscape spans six functional layers, not one product category. The 15 vendors profiled here occupy edge-compute and platform, machine vision, industrial and collaborative robots, AMR and intralogistics, embodied and humanoid, and AIoT-OS and connectivity. No single vendor covers the full stack. This layering is a finding in itself: "AI×IoT for edge manufacturing" is an assembled system drawn from specialists, not a monolithic product. Buyers integrate across at least three or four of these layers.

8. Industrial-vendor pricing is quote-based, which limits price transparency across the field. For the large majority of the 15 featured vendors, pricing is "Contact Sales" and quote-driven. The visible exceptions are entry-level: Dobot's entry cobots are accessibly priced (list prices vary and the vendor positions them for SMEs), and Unitree's consumer Go2 unit starts low while enterprise configurations remain quote-based. Because most list prices are not public, cross-vendor price comparison in this domain is structurally difficult. This is a neutral characteristic of industrial capital equipment, not a criticism.

9. Machine vision remains the most mature AI use case on the factory floor. Across analyst consensus and the vendor set, machine vision — especially quality inspection and vision-guided robot control — is the most established application of AI in manufacturing. It is the entry point for several featured vendors, including a dedicated 3D-vision pure-play. Predictive maintenance and quality inspection are widely reported as the two highest-ROI early use cases. Vision's maturity is why it recurs across otherwise different vendors' product lines.

10. Edge, not cloud, is the operative deployment model for this domain. Edge and edge-AI computing are widely reported to be growing faster than cloud-only AI for latency, privacy, bandwidth, and offline-operation reasons. On a production line, a vision inference that must complete in milliseconds cannot wait on a round trip to a distant data center. That constraint favors on-premises inference hardware, which is why edge-compute platform vendors form a distinct and load-bearing layer in the map. The "edge" in this report's title is a technical requirement, not a marketing label.

11. Seven sanctioned or Entity-List vendors were deliberately excluded, narrowing the visible field. To avoid inherited reputational and compliance risk, this edition excluded seven US-sanctioned or Entity-List companies — Hikvision/Hikrobot, Dahua, SenseTime, Megvii, iFLYTEK, and CloudMinds — and omitted Huawei. Several of these are significant players in industrial vision and AIoT. Their exclusion means the featured map is a deliberately compliance-scoped view of the Asian landscape, not an exhaustive census. Readers should read the vendor set with that scoping decision in mind.

12. The humanoid and legged-robot category moved from demo to early pilot within roughly 12–18 months. Widely reported analyst framing places the transition of humanoid and embodied robots from staged demonstrations to early industrial pilots across 2025–2026. This report's July 2026 signals — steel-plant inspection and assembly-line piloting — are concrete instances of that transition. The category is still early: these are pilots, not fleet-scale rollouts. But the direction, over a short window, is toward real industrial tasks.

Methodology & Scope

This report is descriptive. It synthesizes four source types over a time window running through mid-2026.

Named sources. Robot installation, stock, and density figures come from the IFR *World Robotics 2025* report, including density figures the IFR derives using China National Bureau of Statistics labor data. Advanced-factory counts and national shares come from the WEF *Global Lighthouse Network 2025*. Time-sensitive deployment signals come from BestAIFor news-rss monitoring for July 2026, drawing on trade-press outlets including Pandaily and ChinaTechNews. Vendor profiles draw on BestAIFor tool-research and each vendor's public disclosures.

Time window. Quantitative data runs through mid-2026. The IFR and WEF figures reflect 2024 activity and early-to-mid 2026 network counts respectively. The trade-press surge is dated to July 2026.

Scoping decision. Seven US-sanctioned or Entity-List vendors (Hikvision/Hikrobot, Dahua, SenseTime, Megvii, iFLYTEK, CloudMinds; Huawei omitted) were deliberately excluded from the featured set to avoid inherited reputational and compliance exposure. This is a scoping choice, not a judgment of their technology.

Stated limitations. This edition does not include primary vendor financials — no independently verified revenue, funding totals, valuations, headcounts, customer counts, or unit shipments. Where such figures would normally appear, we describe qualitatively. It also leans on trade-press and vendor-disclosed information alongside the IFR and WEF datasets. Automated discovery signals that BestAIFor uses for software tools — Product Hunt launches, HuggingFace model activity — do not apply to industrial hardware and were not used here.

Chapter 1 — Market Context

Chapter Highlights

1. **Volume leader:** China installed 295,000 industrial robots in 2024, 54% of the global total (IFR *World Robotics 2025*) — a majority share held by a single country.
2. **Stock leader:** China's operational robot stock passed 2,000,000 units in 2024 (IFR), the largest national installed base and the substrate for edge-AI retrofits.
3. **Density growth:** China's density reached 166 per 10,000 manufacturing employees, up 17% year-on-year (IFR / NBS) — fast growth from a mid-tier base.
4. **Density leader:** South Korea leads the world at 1,220, about 7.3× China's level (IFR) — intensity, not volume, tells a different story.
5. **Regional spread:** Western Europe sits at 267 and North America at 204, both above China's 166 and the Asia average of 131 (IFR).
6. **Frontier factories:** The WEF Lighthouse Network reached 238 sites by June 2026, up from 189 in January 2025 (WEF) — roughly 26% growth in 17 months.

7. **Frontier concentration:** China held about 42% of the 189 January-2025 Lighthouse sites and 6 of the 12 newest September-2025 additions (WEF).

The market context for Asian AI×IoT in manufacturing rests on one dominant fact and several qualifying ones. The dominant fact is scale. China installed 295,000 industrial robots in 2024, which the IFR reports as 54% of all industrial-robot installations worldwide that year (IFR *World Robotics 2025*). No other country comes close on annual volume. This is not a marginal lead; it is a majority of the planet's new industrial robots going into one country's factories in a single year.

Scale compounds into stock. China's operational stock of industrial robots exceeded 2,000,000 units in 2024 — the largest of any country (IFR *World Robotics 2025*). Stock is the more important number for this report's subject. Annual installations describe momentum, but stock describes the standing base of machines onto which AI and IoT layers can be added. A vision-guidance upgrade, a predictive-maintenance sensor package, or an edge-inference box is sold against installed robots. A two-million-unit base is, mechanically, a very large market for such attachments.

Density tells a more nuanced story. China's robot density reached 166 robots per 10,000 manufacturing employees in 2024, up 17% year-on-year (IFR, using China NBS labor data). The 17% annual rise is steep and consistent with the installation lead. But the absolute level places China in the middle of the global pack, not at the top.

Figure 1.1 — Industrial robot density by region, 2024 (robots per 10,000 manufacturing employees)

REGION	ROBOT DENSITY (PER 10,000 MFG. EMPLOYEES)	RELATIVE TO CHINA (166 = 1.0×)
South Korea	1,220	7.3×
Western Europe	267	1.6×
North America	204	1.2×
China	166	1.0×
Asia (average)	131	0.8×

Source: IFR World Robotics 2025 (China density derived using China NBS labor data). Figure 1.1.

Figure 1.1 shows the density picture at a glance. South Korea leads the world at 1,220 robots per 10,000 manufacturing employees, roughly 7.3 times China's figure. Western Europe (267) and North America (204) both sit above China (166), while China sits above the broader Asia average of 131. The reading is that China leads decisively on total volume and stock, but on per-worker intensity it is still catching up to the most automated economies. Korea's lead is the standout: an Asian economy holds the global density crown by a wide margin, driven by its electronics and automotive manufacturing.

The distinction between volume and density matters for how one interprets the domain. A reader who only sees the 54% installation share might conclude that China's factories are the most automated per worker. Figure 1.1 corrects that. China's dominance is one of aggregate capacity in a very large

manufacturing workforce, not of automation intensity per head. Both facts are true simultaneously, and both are visible only when the two measures are held apart.

The second lens on market context is the WEF Global Lighthouse Network, a curated list of factories independently validated as advanced adopters of Fourth Industrial Revolution technologies, including industrial AI and IoT. The network reached 238 sites by June 2026, up from 189 in January 2025 (WEF *Global Lighthouse Network 2025*). That is roughly 26% growth in about 17 months. Within the January 2025 count, China held approximately 80 of the 189 sites — about 42%, the largest national share of any country. Momentum stayed concentrated: 6 of the 12 newest sites announced in September 2025 were in China.

Figure 1.2 — WEF Global Lighthouse Network growth and China share

MEASURE	VALUE	SOURCE DETAIL
Total Lighthouse sites, January 2025	189	WEF Global Lighthouse Network 2025
Total Lighthouse sites, June 2026	238	WEF Global Lighthouse Network 2025
Growth over ~17 months	+49 sites (~26%)	Derived from the two counts above
China share of the 189 (January 2025)	~80 sites (~42%)	WEF Global Lighthouse Network 2025
China share of the 12 newest sites (September 2025)	6 of 12 (50%)	WEF Global Lighthouse Network 2025

Source: WEF Global Lighthouse Network 2025. Growth figure derived from the January-2025 and June-2026 totals. Figure 1.2.

Figure 1.2 reinforces the installation picture with an independent, qualitative-validation lens. The Lighthouse Network is not counting robots; it is recognizing whole factories as frontier adopters. That China holds the largest share on this measure — and takes half of the newest cohort — indicates the concentration is not only in raw installation counts but also in validated, systemic deployment. Two independent datasets, IFR and WEF, point the same direction on Chinese concentration, which strengthens the finding.

Taken together, the market context establishes the stage on which every vendor in Chapter 3 operates. The demand side is heavily weighted toward China by volume and toward Korea by intensity, with Western Europe and North America as dense but smaller-volume markets. The supply side — the vendors — is concentrated in China and Taiwan, as the next chapters show. The alignment of a vast domestic installed base with a domestic supplier ecosystem is the structural backdrop for the rest of this report.

Chapter 2 — The AI×IoT×Edge Convergence

Chapter Highlights

1. **Latency constraint:** Line-speed inference in milliseconds cannot tolerate a cloud round trip, so edge deployment is a requirement, not a preference (widely-reported analyst consensus).
2. **Four drivers:** Latency, bandwidth, privacy, and offline operation are the consistently cited reasons edge-AI is growing faster than cloud-only AI (widely-reported).
3. **Five stack layers:** The AIoT edge-manufacturing stack separates into sensing, connectivity, edge-compute, AI-model, and orchestration layers.
4. **Convergence definition:** "AIoT" is the convergence of AI and IoT; in manufacturing it means sensor data processed by AI models at or near the point of capture.
5. **Most-mature use case:** Machine-vision quality inspection is the most established AI-in-manufacturing application (analyst consensus).
6. **Highest early ROI:** Predictive maintenance and quality inspection are widely reported as the two highest-ROI early use cases.
7. **Emerging use case:** Embodied and humanoid robots moved from demo to early industrial pilots across 2025–2026 (widely-reported framing), confirmed by this report's July 2026 signals.

The phrase "AI×IoT for edge manufacturing" compresses three trends into one system. IoT supplies the sensors and connectivity that instrument a factory. AI supplies the models that interpret the resulting data. Edge computing supplies the on-site or near-site processing that lets those models run where the data is generated. "AIoT" is the widely-used shorthand for the convergence of AI and IoT; adding "edge" specifies where the computation happens.

Why edge, and not cloud? Four reasons recur in analyst commentary and vendor positioning, and they are worth stating precisely because they explain the shape of the vendor landscape.

The first is latency. Many manufacturing tasks are real-time. A vision system that inspects parts moving down a line, or that guides a robot arm to a grasp point, must return an answer in milliseconds. A round trip to a distant cloud data center introduces delay that a fast line cannot absorb. Processing at the edge removes that delay.

The second is bandwidth. High-resolution cameras and dense sensor arrays generate large data volumes. Streaming all of it to the cloud is expensive and often impractical. Edge processing filters and reduces data locally, sending only what matters upstream.

The third is privacy and data governance. Factory data — process parameters, defect patterns, production rates — is commercially sensitive. Keeping inference on-premises reduces exposure and simplifies compliance in jurisdictions with data-localization rules.

The fourth is offline operation. A factory cannot halt because a network link drops. Edge inference keeps critical functions running when connectivity is degraded or absent. Together these four drivers explain the widely-reported observation that edge-AI is growing faster than cloud-only AI for industrial use.

The convergence resolves into a layered stack. Sensing captures the physical world — cameras, encoders, temperature and vibration sensors, force sensors on robot joints. Connectivity moves that data reliably in industrial conditions — deterministic networks, gateways, and protocol translation. Edge-compute provides the on-site hardware that runs inference — industrial PCs, edge servers, AI accelerators, smart cameras. The AI-model layer supplies the trained models — vision, anomaly detection, motion planning. Orchestration ties it together — the operating systems, platforms, and fleet managers that coordinate devices, models, and workflows across a facility.

Figure 2.1 — The AIoT edge-manufacturing stack, mapped to featured vendors

STACK LAYER	WHAT IT DOES	REPRESENTATIVE FEATURED VENDORS
Sensing	Captures physical-world signals (vision, force, vibration, position)	Advantech (ICAM AI cameras), Mech-Mind (3D vision), Flexiv (force sensing)
Connectivity	Moves industrial data reliably; gateways and protocol translation	Moxa (industrial networking), Advantech (WISE-IoT)
Edge-compute	Runs AI inference on-site (edge servers, IPCs, accelerators, smart cameras)	ADLINK (edge-AI platforms, EVA SDK), Advantech (EI-series, Edge AI SDK)
AI-model	Trained models for vision, control, anomaly detection, motion planning	Mech-Mind (vision-guidance), Flexiv (adaptive control), Delta (DIAStudio)
Orchestration	Coordinates devices, fleets, workflows, and facilities	Terminus (TacOS AIoT-OS), Foxconn/FII (BEACON, Fii Cloud), Geek+ / Hai (fleet management)

Source: BestAIFor tool-research and vendor public disclosures. Vendor placements are indicative; several vendors span multiple layers. Figure 2.1.

Figure 2.1 maps representative featured vendors to the five layers. A caveat is built into the caption: most of these vendors span more than one layer. Advantech, for instance, appears at sensing, connectivity, and edge-compute because its portfolio reaches across all three. The map is a way to reason about function, not a claim that each vendor lives in exactly one box. The practical reading is that a working edge-manufacturing deployment assembles components from several layers, and no single featured vendor supplies the entire stack.

On top of the stack sit the use cases. Four dominate the current field. Machine-vision quality inspection is the most mature; it is the application where AI in manufacturing has the longest track record and the clearest value, catching defects faster and more consistently than manual inspection. Predictive maintenance is the second high-ROI use case, using sensor data to anticipate equipment failure before it stops a line. These two — inspection and predictive maintenance — are widely reported as the highest-ROI early applications, which is why they anchor many vendor pitches.

The third use case is AMR-based intralogistics: autonomous mobile robots and case-handling robots moving materials through factories and warehouses, coordinated by fleet-management software. The fourth, and newest, is embodied and humanoid robotics. Across 2025–2026, widely-reported framing has these robots moving from staged demonstrations toward early industrial pilots. Chapter 4 examines the concrete July 2026 instances of that shift. For now the point is structural: the use-case frontier is expanding from mature vision and maintenance applications toward mobile and embodied systems, and the vendor landscape in Chapter 3 spreads across exactly that range.

Chapter 3 — The Asian Vendor Landscape

Chapter Highlights

1. **Fifteen vendors, six layers:** The featured set spans edge-compute/platform, machine vision, industrial and collaborative robots, AMR/intralogistics, embodied/humanoid, and AIoT-OS/connectivity.
2. **Geographic concentration:** All 15 are Asian; the set splits between mainland China and Taiwan, with Flexiv operating across China and the US.
3. **Pricing is mostly quote-based:** For the large majority, pricing is “Contact Sales”; visible list prices exist only at the entry level (Dobot cobots, Unitree consumer units).
4. **Vision is a standalone category:** At least one vendor (Mech-Mind) is a dedicated AI industrial-vision pure-play, underscoring vision’s maturity as a category.
5. **Lighthouse operators in-set:** Foxconn/FII and Delta carry the WEF Lighthouse and advanced-manufacturing narrative directly into the vendor map.
6. **Highest news velocity:** Unitree recorded the highest news velocity in the featured set this week, tied to industrial-inspection deployment.

The Asian vendor landscape in this report is 15 companies, grouped by the layer they most centrally occupy. All are Asian. The grouping below is functional, not a ranking. Within each group, order is not significant.

Edge-compute and platform

Advantech (Taiwan). Advantech is the anchor industrial edge-AI hardware-and-software platform in Asia. Its portfolio spans the Edge AI SDK, the EI-series edge servers, ICAM AI cameras, and the WISE-IoT platform. That breadth places it across sensing, connectivity, and edge-compute in the Figure 2.1 stack, which is why it recurs in multiple layers of the map.

In stack terms, Advantech is a foundation vendor. It supplies the industrial computers, smart cameras, and edge servers on which other companies’ models and applications run, plus the IoT platform that connects them. For a buyer assembling an edge-manufacturing deployment, Advantech represents the hardware-and-platform substrate rather than a single application. Pricing is quote-based.

ADLINK Technology (Taiwan). ADLINK provides edge-AI computing platforms and the Edge Vision Analytics (EVA) SDK. Its role is the edge-inference hardware backbone — the on-site compute that runs vision and other models at line speed. The EVA SDK positions it specifically at the intersection of edge-compute and vision applications.

ADLINK sits squarely in the edge-compute layer. Where Advantech spans a broader platform, ADLINK's center of gravity is inference hardware and the software tooling that makes vision workloads run on it. It is a supplier to system integrators and OEMs building vision-enabled edge systems. Pricing is quote-based.

Moxa (Taiwan). Moxa supplies industrial networking and edge connectivity for IIoT. It is the connectivity and edge-gateway backbone — the layer that moves sensor and machine data reliably across a factory under industrial conditions of noise, temperature, and uptime demand.

Moxa's place in the stack is the connectivity layer of Figure 2.1. Its products are the deterministic networks and gateways that link sensing to edge-compute. In an AIoT deployment, Moxa is rarely the visible application, but it is frequently the plumbing that lets the visible applications function. Pricing is quote-based.

Machine vision

Mech-Mind Robotics (China). Mech-Mind builds AI-powered 3D machine vision and robot-guidance systems for pick-and-place, assembly, and quality tasks. It is the best-funded AI industrial-vision pure-play in the set; it is venture-backed, with Sequoia among its backers. We do not state a funding figure, as none is independently verified here.

Mech-Mind occupies the sensing and AI-model layers, specifically for vision. Its 3D vision lets robot arms perceive the position and orientation of parts and adjust their motion accordingly — the vision-guidance capability that turns a blind arm into an adaptive one. As a pure-play, it exemplifies vision's status as the most mature AI-in-manufacturing category, mature enough to support a dedicated, well-capitalized specialist. Pricing is quote-based.

Industrial and collaborative robots

Flexiv (China/US). Flexiv builds adaptive, force-controlled AI robots — the Rizon series — for flexible manufacturing. Force control lets its robots sense contact and modulate their motion, which suits tasks like assembly, polishing, and insertion where position control alone is brittle. The company maintains a public /news page.

In stack terms, Flexiv spans the sensing layer (force sensing) and the AI-model layer (adaptive control). Its differentiator is the combination of force feedback and AI, aimed at tasks that are hard to automate with rigid, pre-programmed robots. Flexiv operates across China and the US. Pricing is quote-based.

Dobot (China). Dobot makes collaborative and industrial robot arms with AI vision, spanning the Nova, CR, and Magician lines. Its positioning is accessibility: cobots aimed at small and medium enterprises. Its entry cobots are accessibly priced — the vendor positions entry units for SMEs, with exact list prices varying — which makes Dobot one of the few vendors in the set with visible entry-level pricing rather than purely quote-based sales. Dobot maintains a public /press page.

Dobot sits in the collaborative-robot layer, with AI vision attached for guidance and inspection. Its role in the landscape is the accessible entry point — the vendor most likely to appear in an SME's first automation project. That accessibility, and the relatively public pricing at the entry level, distinguish it from the quote-only industrial majority.

Estun Automation (China). Estun is a top-tier domestic Chinese robot OEM, building industrial robots and motion control with AI-assisted welding and handling. It represents the domestic robot-manufacturing base that China's installation lead rests on.

Estun occupies the industrial-robot and motion-control layers, with AI applied to specific processes such as welding and material handling. As a large domestic OEM, it is one of the suppliers producing the arms that populate China's two-million-unit stock. Its AI-assist features are the edge-AI upgrades layered onto that core robot business. Pricing is quote-based.

Inovance (China). Inovance is a large domestic industrial-automation vendor — drives, PLCs, motion control, and AI-enabled factory control. It is the control layer of the factory: the components that actually move and coordinate machinery.

In the stack, Inovance sits at the control and edge-compute boundary, supplying the drives and controllers that execute motion and the increasingly AI-enabled logic that governs it. It is a foundational automation supplier rather than an application vendor. Its scale in the domestic market makes it a significant part of the control substrate onto which higher-level AI is added. Pricing is quote-based.

Delta Electronics (Taiwan). Delta offers a broad smart-manufacturing automation portfolio, industrial IoT, and AIoT through its DIAStudio software. It carries a strong ESG and Lighthouse narrative and spans a wide range of the stack.

Delta's breadth places it across the edge-compute, AI-model, and orchestration layers. DIAStudio is its software environment for building and running automation and AIoT applications. Alongside Foxconn/FII, Delta is one of the vendors that connects the featured set directly to the advanced-manufacturing and Lighthouse story from Chapter 1. Pricing is quote-based.

AMR and intralogistics

Geek+ / Geekplus (China). Geek+ builds AI-driven autonomous-mobile-robot (AMR) fleets for factory and warehouse intralogistics. It is a global AMR leader and represents the edge-logistics layer — moving materials autonomously through facilities.

Geek+ sits in the orchestration and AI-model layers as applied to mobile robots. Its value is not a single robot but a coordinated fleet, managed by software that routes and schedules many units in real time. In the edge-manufacturing context, it automates the movement of goods between processes, a complement to the fixed robots that perform the processes themselves. Pricing is quote-based.

Hai Robotics (China). Hai Robotics created the Autonomous Case-handling Robot (ACR) category, pairing ACRs with AI for high-density storage. Where AMRs move goods across floors, ACRs handle cases within dense storage systems, raising storage density.

Hai sits alongside Geek+ in the AMR and intralogistics group, but with a distinct specialization: case handling and high-density storage rather than general floor transport. As the ACR category creator, it defines a specific niche within intralogistics. Its systems combine robot hardware with fleet and storage-management AI. Pricing is quote-based.

Embodied and humanoid

Unitree Robotics (China). Unitree builds legged and humanoid robots and applies embodied AI to industrial inspection. Its steel-plant inspection deployment with Hunan Steel is the concrete industrial instance behind its prominence this week; it recorded the highest news velocity in the featured set. Its consumer units, such as the Go2, start at low price points, while enterprise configurations are quote-based. This profile frames Unitree strictly for industrial-inspection use.

Unitree occupies the embodied-AI layer. Legged robots can traverse terrain that wheeled AMRs cannot — stairs, uneven surfaces, hazardous inspection routes — which suits plant-inspection tasks. The Hunan Steel deployment is an example of embodied robots moving from demonstration to a specific industrial job: inspecting steel-plant environments. Enterprise pricing is quote-based.

UBTECH Robotics (China). UBTECH builds humanoid robots — the Walker S line — and is piloting them on EV and electronics assembly lines. This profile frames UBTECH strictly for factory-line use.

UBTECH sits in the embodied-humanoid layer, aimed specifically at assembly-line tasks. The Walker S pilots represent the early-pilot phase of humanoid deployment: not fleet-scale, but real robots on real lines performing assembly-adjacent work. Along with Unitree, UBTECH is one of the two featured vendors carrying the embodied-robotics frontier into concrete industrial settings. Pricing is quote-based.

AIoT-OS and connectivity

Terminus Group (China). Terminus builds an AIoT operating system for smart facilities and industrial environments, branded TacOS. It ties the "AI×IoT" theme together explicitly: an operating-system layer that coordinates AI and IoT devices across a facility.

Terminus sits in the orchestration layer. TacOS is positioned as the software that manages heterogeneous AIoT devices and workflows in a building or industrial site. Where other vendors supply the sensing, compute, or robots, Terminus supplies a layer meant to coordinate them. It is the vendor whose product most directly embodies the report's central AI×IoT convergence theme. Pricing is quote-based.

Foxconn Industrial Internet / FII (China). FII operates Lighthouse smart factories and industrial AI/IIoT platforms, including Fii Cloud and the BEACON platform. It is a WEF Lighthouse operator and a reference implementation of industrial AI at scale.

FII spans the orchestration layer and, through its own factories, the entire stack as an operator rather than only a supplier. BEACON and Fii Cloud are its platforms for running smart-factory operations. FII is distinctive in the set because it both builds industrial-AI platforms and runs some of the world's validated advanced factories, connecting the vendor landscape directly to the Lighthouse data in Chapter 1. Pricing is quote-based.

Figure 3.1 — The 15 featured vendors at a glance

VENDOR	COUNTRY	STACK LAYER (PRIMARY)	PRIMARY AI USE CASE	PRICING MODEL
Advantech	Taiwan	Edge-compute / platform	Edge-AI platform, smart cameras	Quote-based
ADLINK Technology	Taiwan	Edge-compute	Edge vision analytics (inference HW)	Quote-based
Moxa	Taiwan	Connectivity	Industrial networking / edge gateways	Quote-based
Mech-Mind Robotics	China	Machine vision (sensing / AI-model)	3D vision + robot guidance	Quote-based
Flexiv	China / US	Industrial robots (sensing / AI-model)	Adaptive force-controlled robots	Quote-based
Dobot	China	Collaborative robots	Cobots with AI vision	Entry units accessibly priced; else quote-based
Estun Automation	China	Industrial robots / motion control	AI-assisted welding & handling	Quote-based
Inovance	China	Control / edge-compute	AI-enabled factory control	Quote-based
Delta Electronics	Taiwan	Automation / AIoT (multi-layer)	Smart-manufacturing AIoT (DIAStudio)	Quote-based
Geek+ / Geekplus	China	AMR / intralogistics	AI-driven AMR fleets	Quote-based
Hai Robotics	China	ACR / intralogistics	AI for high-density storage	Quote-based
Unitree Robotics	China	Embodied / humanoid	Legged robots for industrial inspection	Consumer from low price; enterprise quote-based
UBTECH Robotics	China	Embodied / humanoid	Humanoids on assembly lines	Quote-based
Terminus Group	China	AIoT-OS / orchestration	AIoT operating system (TacOS)	Quote-based
Foxconn Industrial Internet (FII)	China	Orchestration / operator	Lighthouse smart-factory AI/IIoT	Quote-based

Source: BestAIFor tool-research and vendor public disclosures. Stack layer indicates the primary layer; several vendors span multiple. Figure 3.1.

Figure 3.1 collapses the profiles into one view. Three patterns are visible. First, geography: the set divides between mainland China and Taiwan, with Flexiv straddling China and the US. Taiwan clusters at the edge-compute and connectivity layers (Advantech, ADLINK, Moxa, Delta); mainland China spans robots, vision, intralogistics, and embodied systems. Second, pricing: the "Quote-based" column is nearly uniform, with the only visible exceptions at the entry level (Dobot cobots, Unitree consumer units). Third, layer coverage: every layer of Figure 2.1's stack has at least one featured vendor, but no vendor covers them all. The map is a set of specialists whose combination — not any single member — constitutes an edge-manufacturing system.

Chapter 4 — Adoption Patterns & Open Questions

Chapter Highlights

1. **Concentrated surge:** Four distinct embodied-industrial signals landed in a single week of July 2026 (BestAIFor news-rss monitoring) — clustering that marks a phase change, not a single announcement.
2. **Capital scale:** JD.com's "RoboBase" robot-facility network was announced at $1.4B, with a Guangzhou groundbreaking (BestAIFor news-rss monitoring, July 2026).
3. **Named industrial deployments:** Unitree×Hunan Steel (steel-plant inspection) and UBTECH Walker S (assembly-line piloting) are concrete lab-to-line instances (BestAIFor news-rss monitoring, July 2026).
4. **Ecosystem signal:** A China embodied-AI industrial-deployment conference in Beijing indicates a coordinating ecosystem, not isolated pilots (BestAIFor news-rss monitoring, July 2026).
5. **Open question — supply chain:** The sanctioned-vendor exclusion and cross-border tensions are a live geopolitical exposure for buyers, stated as a neutral finding.
6. **Open question — interoperability:** With no vendor covering the full stack, integration across layers is a standing technical question.
7. **Open question — workforce and data:** Workforce transition and data governance recur as open questions as deployment scales, stated descriptively.

Adoption in this domain is uneven and layered. Mature use cases — machine-vision inspection, predictive maintenance — are in routine production use and are not, by themselves, news. The active frontier in mid-2026 is embodied and humanoid robotics, and the July 2026 evidence is unusually concentrated.

In a single week, BestAIFor news monitoring recorded four distinct signals (BestAIFor news-rss monitoring, July 2026). JD.com announced a $1.4B "RoboBase" robot-facility network, with a groundbreaking in Guangzhou. Unitree partnered with Hunan Steel to deploy legged robots for steel-plant inspection. UBTECH began piloting Walker S humanoids on assembly lines. And a China embodied-AI industrial-deployment conference was held in Beijing. The value of these signals is in their clustering. Any one could be a one-off. Four in a week — a large capital commitment, two named industrial deployments, and an ecosystem-level conference — read together as a phase change in how embodied robots are being positioned: from demonstration hardware toward assigned industrial tasks.

The $1.4B RoboBase figure is the one hard vendor-specific number in this chapter, and it is a disclosed announcement value, cited as such. We do not extrapolate it into market-size claims or unit forecasts. It indicates the scale of capital that at least one large platform company is willing to commit to robot-facility infrastructure. Whether that commitment translates into deployed capacity, and on what timeline, is not something this report can verify, and we do not assert it.

The two named deployments are more concrete than the capital figure for understanding the lab-to-line shift. Steel-plant inspection is a real industrial task with clear rationale: legged robots can traverse hazardous, uneven plant environments that are unsafe or awkward for human inspectors and impassable for wheeled robots. Assembly-line piloting of humanoids targets tasks in EV and electronics manufacturing. Both are pilots, and the word matters. A pilot is early-stage, limited-scale, and unproven at fleet scale. The finding is directional — embodied robots are being placed in specific industrial jobs — not a claim that they are deployed broadly.

This lab-to-line shift is consistent with the widely-reported framing that humanoid and embodied robots moved from demo to early industrial pilots across 2025–2026. The July 2026 signals are concrete instances of that transition rather than a departure from it. They also concentrate, once again, in China — consistent with the installation and Lighthouse concentration from Chapter 1. The same geography that leads on robot volume and validated advanced factories is leading on the embodied frontier.

Several open questions attach to this adoption pattern. They are stated here as neutral findings, not as risks to be mitigated or opportunities to be seized. This is a descriptive report; it identifies the questions and leaves the response to the reader.

The first open question is supply-chain and geopolitical exposure. This report excluded seven sanctioned or Entity-List vendors as a scoping decision. That exclusion is itself evidence of a live issue: a significant part of the Asian industrial-AI supplier base carries compliance constraints for some buyers. Cross-border tensions, export controls, and shifting sanctions lists mean that a supplier selected today may face restrictions tomorrow, or may itself depend on constrained components. The exposure runs in both directions — buyers face it in vendor selection, and vendors face it in component sourcing. It is a standing feature of the domain, not a solved problem.

The second open question is interoperability. Chapter 3 established that no featured vendor covers the full stack. A working deployment integrates sensing, connectivity, edge-compute, AI models, and orchestration from multiple suppliers. Whether those layers interoperate cleanly — across protocols, data formats, and management systems — is a persistent technical question. AIoT operating systems such as Terminus's TacOS and platforms such as FII's BEACON are partial answers, but the field has no single dominant integration standard visible in this vendor set. Integration risk sits with the buyer or integrator.

The third open question is workforce. Rising robot density — China's 17% year-on-year increase, Korea's world-leading 1,220 per 10,000 employees — implies ongoing change in the composition of manufacturing work. The introduction of embodied robots into inspection and assembly roles extends that change to tasks previously assumed to need human dexterity or mobility. This report does not forecast net employment effects, which are contested and outside its data. It records that workforce transition is an open question that scales with deployment.

The fourth open question is data governance. The edge model reduces data exposure by keeping inference local, which is one of its four drivers. But industrial AIoT still generates and moves sensitive process data, and orchestration layers aggregate it across facilities. As deployments scale and connect, questions of who holds factory data, under what jurisdiction, and with what protections, become more prominent. The edge architecture mitigates but does not eliminate these questions.

None of these four open questions has a clean answer in the current data, and this report does not manufacture one. They are the honest edges of the domain as of mid-2026: the places where the evidence runs out and judgment begins. A reader deciding how to act on this landscape will weigh them according to their own position, which is exactly where a descriptive report should leave them.

Appendix

A. Full vendor table (extended)

Figure A.1 — The 15 featured vendors, extended detail

VENDOR	COUNTRY	GROUP	STACK LAYER	PRIMARY AI USE CASE	PRICING MODEL	PUBLIC PRESS/NEWS PAGE
Advantech	Taiwan	Edge-compute / platform	Sensing / connectivity / edge-compute	Edge-AI platform (Edge AI SDK, EI-series), ICAM cameras, WISE-IoT	Quote-based	Vendor site
ADLINK Technology	Taiwan	Edge-compute / platform	Edge-compute	Edge Vision Analytics (EVA SDK)	Quote-based	Vendor site
Moxa	Taiwan	AIoT-OS / connectivity	Connectivity	Industrial networking / edge gateways	Quote-based	Vendor site
Mech-Mind Robotics	China	Machine vision	Sensing / AI-model	3D machine vision + robot guidance	Quote-based	Vendor site
Flexiv	China / US	Industrial + collaborative robots	Sensing / AI-model	Adaptive, force-controlled robots (Rizon)	Quote-based	Public /news page
Dobot	China	Industrial + collaborative robots	Collaborative robots	Cobots with AI vision (Nova, CR, Magician)	Entry units accessibly priced; else quote-based	Public /press page
Estun Automation	China	Industrial + collaborative robots	Industrial robots / motion control	AI-assisted welding & handling	Quote-based	Vendor site
Inovance	China	Industrial + collaborative robots	Control / edge-compute	AI-enabled factory control (drives, PLC, motion)	Quote-based	Vendor site
Delta Electronics	Taiwan	Edge-compute / platform	Automation / AIoT (multi-layer)	Smart-manufacturing AIoT (DIAStudio)	Quote-based	Vendor site
Geek+ / Geekplus	China	AMR / intralogistics	Orchestration / AI-model	AI-driven AMR fleets	Quote-based	Vendor site

VENDOR	COUNTRY	GROUP	STACK LAYER	PRIMARY AI USE CASE	PRICING MODEL	PUBLIC PRESS/NEWS PAGE
Hai Robotics	China	AMR / intralogistics	Orchestration / AI-model	ACR for high-density storage	Quote-based	Vendor site
Unitree Robotics	China	Embodied / humanoid	Embodied AI	Legged robots for industrial inspection	Consumer from low price; enterprise quote-based	Vendor site
UBTECH Robotics	China	Embodied / humanoid	Embodied AI	Humanoids (Walker S) on assembly lines	Quote-based	Vendor site
Terminus Group	China	AIoT-OS / connectivity	Orchestration	AIoT operating system (TacOS)	Quote-based	Vendor site
Foxconn Industrial Internet (FII)	China	AIoT-OS / connectivity	Orchestration / operator	Lighthouse smart-factory AI/IIoT (BEACON, Fii Cloud)	Quote-based	Vendor site

Source: BestAIFor tool-research and vendor public disclosures. "Public press/news page" reflects a specifically noted press or news page where confirmed (Flexiv /news, Dobot /press); other entries default to the vendor site. Figure A.1.

B. Glossary

- **AIoT** — The convergence of artificial intelligence and the Internet of Things: sensor and device data processed by AI models, in manufacturing typically at or near the point of capture.
- **Edge AI** — Running AI inference on hardware located on-site or near the data source, rather than in a distant cloud data center, chiefly for latency, bandwidth, privacy, and offline-operation reasons.
- **AMR (Autonomous Mobile Robot)** — A robot that navigates and transports materials through a facility autonomously, typically coordinated as a fleet by management software.
- **ACR (Autonomous Case-handling Robot)** — A robot specialized for handling cases within high-density storage systems, a category distinct from general floor-transport AMRs.
- **Cobot (collaborative robot)** — A robot designed to work safely alongside human workers, often lower-cost and easier to deploy than caged industrial robots.
- **Machine vision** — The use of cameras and AI models to interpret images for tasks such as quality inspection and robot guidance; the most mature AI-in-manufacturing use case.

- **Predictive maintenance** — Using sensor data and AI to anticipate equipment failure before it occurs; widely reported, with quality inspection, as one of the two highest-ROI early use cases.
- **Embodied AI** — AI integrated into a physical robot body — legged, wheeled, or humanoid — enabling interaction with the physical world; in 2025–2026 moving from demonstration to early industrial pilots.
- **Lighthouse factory** — A manufacturing site independently validated by the WEF Global Lighthouse Network as an advanced adopter of Fourth Industrial Revolution technologies, including industrial AI and IoT.

C. Data sources

- **IFR World Robotics 2025** — International Federation of Robotics. Source for 2024 industrial-robot installations (China 295,000; 54% global share), operational stock (China >2,000,000 units), and robot density by region (South Korea 1,220; Western Europe 267; North America 204; China 166; Asia average 131). China density derived by the IFR using China National Bureau of Statistics labor data.
- **WEF Global Lighthouse Network 2025** — World Economic Forum. Source for advanced-factory counts (238 sites by June 2026, up from 189 in January 2025), China national share (~80 of 189, ~42%), and the newest-cohort share (6 of 12 September-2025 sites in China).
- **BestAIFor news-rss monitoring (July 2026)** — Source for the July 2026 embodied-industrial signals: JD.com $1.4B RoboBase network (Guangzhou groundbreaking), Unitree×Hunan Steel steel-plant inspection, UBTECH Walker S assembly-line pilots, and the China embodied-AI industrial-deployment conference in Beijing. Underlying trade press includes Pandaily and ChinaTechNews.
- **BestAIFor tool-research** — Source for vendor profiles, stack-layer classifications, and pricing-model characterizations, based on vendor public disclosures.

This report does not include primary vendor financials. Revenue, funding totals, valuations, headcounts, customer counts, and unit-shipment figures are not asserted where not independently verified. Product Hunt and HuggingFace discovery signals do not apply to industrial hardware and were not used.