Global Humanoid

Physical AI update on the automotive sector

In this note, we summarise some of the latest developments in Physical AI with a focus on the global automotive sector including names such as BMW, Schaeffler, Toyota, Humanoid, Tesla and Wandercraft amongst other names. Tesla's Elon Musk described, in our view, very well the humanoid development as slow and "somewhat bumpy" because Optimus is a radically new product—comparing the process to an S-curve whose initial slope is shallow, with progress limited by the slowest of roughly 10,000 things that must go right.

BMW – Capital Markets Update on Physical AI: Developing a "Physical AI" robotics stack centred on Plant Landshut, combining open software, production data, simulation, motion planning and demonstration-based training. Leipzig and Spartanburg pilots complement the effort, with emphasis on flexible, dexterous factory tasks and staged deployment.

Mercedes-Benz: At the Mercedes-Benz Hungary plant opening, we met Apptronik CEO Jeff Cardenas, who outlined Apptronik's strategy and its partnership with Mercedes-Benz, positioning the company to support automation across multiple shopfloor workflows. A key takeaway was that humanoids need not be strictly two-legged, wheeled platforms and humanoid arms were also cited for tasks such as box handling, parts handling, body-shop loading and bin picking. Mercedes-Benz sees assembly-line deployment becoming realistic in the 2030–2035 timeframe as dexterity and platform maturity improve, with Apptronik emphasizing safety and a task-fit approach matching mobility/dexterity to each application.

Schaeffler: Pursuing humanoids as a component supplier, industrial user and integration partner. The strategy combines humanoid training facilities, factory data, actuator and strain-wave gearbox content, automotive-grade cost reduction and partnerships; motion components could represent roughly half of a humanoid bill-of-materials value. The firm has opened a state-of-the-art lighthouse factory for humanoid robotics in Taicang, China. The Lighthouse Factory marks the start of mass production of these components for Schaeffler and offers customers and partners the opportunity to train and test physical AI systems in actual industrial conditions. The company recently announced the acquisition of two new customers from the Greater China region in Q3 2026. With this, global incoming orders for humanoid robotics rose to some 400 million euros.

Humanoid: Advancing wheeled humanoids for industrial, automotive, logistics and service workflows. The n ecosystem spans Bosch for manufacturing, Schaeffler for actuators and deployment, Siemens for industrial validation, and NVIDIA for simulation, compute and reinforcement-learning infrastructure. Please follow the link for feedback on our recent tour of their Humanoid robots.

Tesla: Tesla (covered by Rajat Gupta) has begun early production of production-quality Optimus humanoid robots on high-volume lines at its Fremont, California factory (in space previously used for vehicles), as announced in its Q3 2026

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shareholder update. Recent comments from Elon Musk during the latest third quarter results: Musk described this as "early production." He emphasized that the ramp will be slow and "somewhat bumpy" because Optimus is a radically new product—comparing the process to an S-curve whose initial slope is shallow, with progress limited by the slowest of roughly 10,000 things that must go right. The presentation of the Tesla Roadster was probably one of the best car product launches ever seen, breaking all the physics rules in the world of road cars, showcasing the technology breadth of the firm when partnering with Space X.

Neura Robotics: NEURA Robotics and TUM opened a 2,300+ sqm TUM RoboGym powered by NEURA near Munich Airport, designed to combine research, robot training and industrial task validation, while launching its next-gen humanoid 4NE1 Gen 4. NEURA also introduced Neuron AI, its in-house multimodal Physical-AI foundation model, intended to power deployments across five robot embodiments and enable faster customer task fine-tuning via Neuraverse. Separately, NEURA partnered with NXAI to integrate xLSTM for long-horizon memory to support multi-step task continuity, and formed a dedicated HealthTech unit—highlighting an autonomous bed-transport robot with an estimated ~1,300 hours/year time savings for care teams.

Toyota: Toyota (covered by Akira Kishimoto) plans large-scale factory automation, including AI-enabled humanoids trained from veteran-worker demonstrations. Toyota, which aims to share learned skills globally, is developing diffusion-based Large Behavior Models, and is also testing Agility Robotics' Digit for logistics applications. Toyota has provided one of the largest commitments to Humanoids. Toyota Group announced plans to invest $6.42 billion annually from 2028 to update factories and deploy 400,000 robots worldwide, including AI-powered humanoid workers. These robots will learn the skills of veteran workers through cameras and sensors, enabling skill transfer without complex programming. The deployment covers 150,000 robots at Toyota Motor Corp. and 250,000 at group companies like Denso and Aisin.

Honda: Honda (covered by Akira Kishimoto) highlighted a renewed push into humanoid/teleoperated robotics at the 2026 Japan Mobility Show in Tokyo, demonstrating its wheel-mounted Avatar robot equipped with an AI-enhanced, four-finger mechanical hand capable of delicate manipulation. Honda CEO Toshihiro Mibe said the company is already rethinking future vehicle design from the earliest development stages to make cars easier to assemble with humanoid robot workers, drawing a parallel to prior design changes driven by earlier shifts in assembly-line automation. Honda also noted it is testing the Avatar Robot on factory tasks in Japan—such as wire-harness installation—positioning avatar robotics and hand technologies as potential future growth businesses.

Mitsubishi: Mitsubishi (covered by Akira Kishimoto) said in July that it will partner with Japanese robotics startup Highlanders Inc. to develop humanoid robots intended for deployment in its factories, and plans to mass-produce the robots at its engine plant as early as 2027—positioning the initiative as part of its efforts to expand beyond its core automotive business.

Xpeng at the Paris Autoshow provided an update on Physical AI : XPeng (covered by Nick Lai) is moving its humanoid robot, IRON, toward n, with mass production targeted for late 2026, initial deliveries expected in 1H27, and a European rollout planned for 2H27. On Sept'26, the company commissioned what it described as the world's first automated production line for advanced humanoid robots, with more than 80% of core manufacturing processes automated; notably, the first IRON unit reportedly autonomously walked off the line at completion.

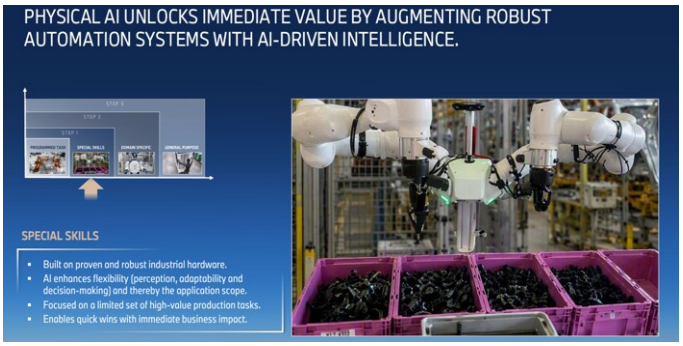
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BMW

During the latest Capital Markets Day, BMW outlined its "Physical AI" strategy. BMW Group's work in physical AI, particularly the role of BMW Group Plant Landshut in developing AI-supported robotics for component production. Landshut is taking on central software development tasks covering open software platforms, training data, simulation, motion planning, and the training of robotic systems. This work complements the pilot projects exploring humanoid robotics at Plants Leipzig and Spartanburg.

What makes the Landshut project especially relevant is the opportunity to develop and evaluate these technologies in real production environments. The plant's broad range of products and manufacturing processes provides a practical setting for assessing where humanoid robotic systems could add value, particularly in tasks requiring flexibility, fine motor skills, and an understanding of the surrounding work environment. The team is developing software that enables robots to perceive their surroundings, assess situations, and determine appropriate actions.

Figure 1: Physical AI



Source: Company data.

Figure 2: Physical AI



Source: Company data.

Figure 3: Physical AI



Source: Company data.

The project also focuses on creating a flexible robotics ecosystem. Open software platforms combine traditional, rule-based programming with modern Vision-Language-Action models, which connect visual information and language understanding with robotic movement. Reliable data is then collected from production environments and test setups and used in simulations to model movement patterns and motion planning. This allows new processes to be tested before they are introduced into ongoing production and supports a gradual progression from pilot projects to wider applications.

In parallel, humanoid robotic systems learn new skills through demonstrations. Project teams record movement patterns and work sequences using camera systems, motion-capture suits, and data gloves. The resulting information is converted into generalisable behavioral models, known as policies, which can support the development of more adaptable robotic systems. This work matters because it connects advanced software development with practical manufacturing experience. By testing these technologies carefully and scaling them in stages, the BMW Group can better evaluate their potential benefits for production.

Mercedes-Benz

During the Mercedes-Benz Hungary plant opening, we met with Apptronik CEO Jeff Cardenas, who outlined Apptronik's strategy and its partnership with Mercedes-Benz, and highlighted the core strengths the company believes position it to deliver automation solutions for Mercedes-Benz across a range of applications. It is important to note that the implementation of Humanoids does not need to be in the form of two legged versions; it can also adopt different forms including wheels or Humanoid arms, across a range across different applications including box handling, cast parts handling, body shop part loading, bin picking amongst other actions. Mercedes Benz sees the implementation of Humanoids on the assembly line becoming a reality by 2030 -2035. By then, Humanoid Dexterity and Humanoid development should have considerably evolved. Jeff Cardenas, the CEO of Apptronik, also mentioned several end markets that could become meaningful going forward defined as a) Back of the house: manufacturing and logistics; b) Front of the house: healthcare, retail and shops; and c) Home applications: applications in the home and home care, this latter could represent the largest opportunity for the firm. Having said this, Apptronik reiterated the concept of safety when implementing Humanoids in the manufacturing environment as well as the business model of offering a robotic solution for the industrial environment correctly adapted to the level of dexterity and mobility required for the task.

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Figure 4: Mercedes-Benz is testing the use of Apollo, a humanoid robot from Apptronik, in production.



Source: Mercedes Benz

Schaeffler

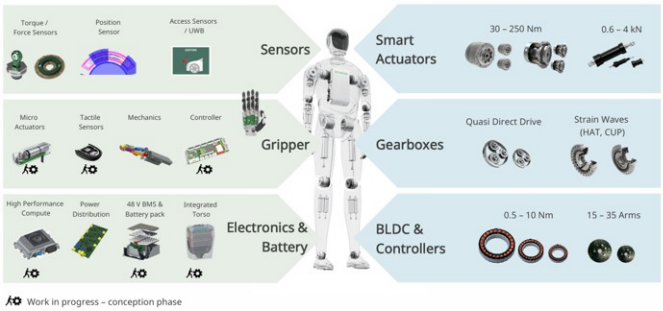
From Schaeffler's Sep'26 Humanoid Tour, we understand the company has outlined a relatively concrete path to participate across the humanoid stack, which is anchored on motion-component content, factory deployment learnings/data capture, and ecosystem partnerships, rather than positioning humanoids as a purely software-led opportunity.

1. **Physical AI: Why Schaeffler is Leaning into Humanoids -** Schaeffler believes humanoid adoption to be a combination of i) AI moving from machine learning → generative AI → agentic AI → physical AI, and ii) macro labor tightness (~85m unfilled positions globally and ~800m industrial workers) as the economic driver for automation to expand beyond classic industrial robotics footprints as they view 60% of tasks as automatable.
2. **Early Adoption: Humanoid Gyms + Factory Footprint -** Schaeffler positions early adoption as a compounding advantage as they can deploy, collect data, train skills, and industrialize against the backdrop of their own manufacturing base. Specifically, the company highlights **regional humanoid gyms** as infrastructure for data collection and manufacturing-skill development, including what it calls the world's first combined Humanoid Gym & humanoid actuator production facility in Shanghai, with a grand opening planned for Q4 2026. The stated training loop spans robot/teleoperation data, synthetic data and peripheral data, feeding simulation and robot foundation models (examples for Nvidia / Gr00t) and then deployment across Schaeffler use cases (logistics, feeding/tending, assembly, inspection, packaging).
3. **System Understanding: Use-Case-Driven Engineering -** A notable element is the use-case-driven development method: Schaeffler shows an engineering loop that starts with use-case torque-cycle analysis and requirements (thermal design, cycle efficiency, load cycles) and then drives actuator design choices, with simulation explicitly tied to tasks such as box handling, walking with payload, pick-and-place, and gripper manipulation.

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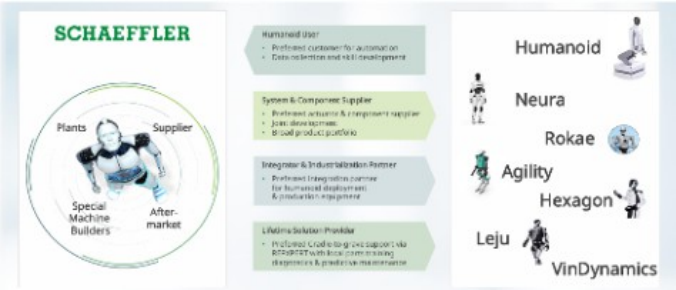
4. **Motion technology as the primary scaling lever -** On the economics, Schaeffler views its integrated linear + rotary actuator competence accounts for ~50% of humanoid BOM costs. On productization, the company points to a new humanoid rotary actuator platform with shared controllers/e-motors across multiple sizes, ~20% reduced axial packaging and up to ~500g of weight reduction, with an integrated torque sensor targeted for Q4 2026; management also flags 30+ actuators per humanoid as the underlying content-per-unit opportunity. Cost-down is positioned as a function of leveraging automotive-grade processes and vertical integration, including ~30% manufacturing cost reduction claims across selected components/process routes (e.g., strainwave gearbox and bearing-related manufacturing), supported by a track record of ~2 million Electronic Cam Phasers (ECPs) sold since 2015.
5. **Partnerships as a go-to-market accelerator -** Schaeffler positions itself across multiple roles in the ecosystem i.e. humanoid user, system & component supplier (broad motion portfolio + joint development), integrator/ n partner (turn pilots into production with line-ready processes), and lifecycle solution provider. Company also lists partnership targets spanning OEMs/robotics players (e.g., Neura, Agility, Hexagon, and others) as part of the market-access pathway.

Figure 5: Overview of Schaeffler Product Fields



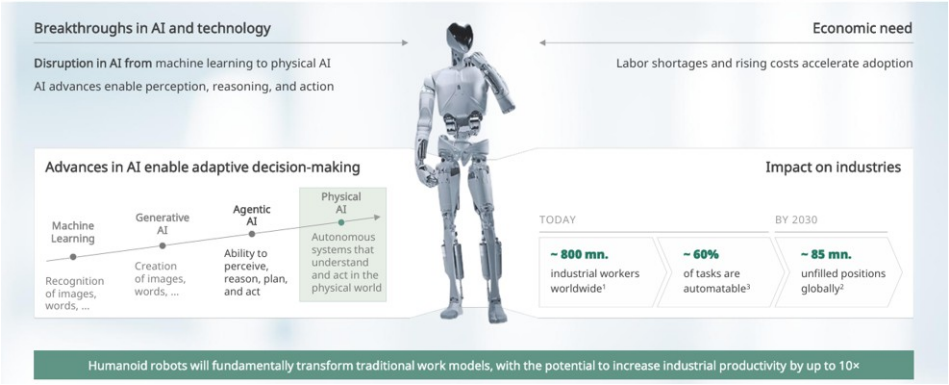
Source: Company data.

Figure 6: Building Strong OEM Strategic Partnerships



Source: Company data.

Figure 7: Physical AI: Future of Manufacturing



Source: Company data.

Latest News & Announcements

- Hexagon Robotics and Schaeffler announced that the AEON humanoid has entered Schaeffler's Humanoid Gym in Germany, marking a new milestone toward the planned deployment of at least 1,000 AEON units in the coming years. The Humanoid Gym uses a Train-Validate-Deploy model in a dedicated industrial environment, allowing the partners to teach AEON new industrial capabilities while building Schaeffler's in-house expertise to operate, train, and integrate humanoids into production. The effort is intended to prepare both the robots and the manufacturing ecosystem for deployment and expanded factory-floor use cases.
- Schaeffler is expanding its humanoid robotics product portfolio and bringing formed strain wave gearboxes to market. Strain wave gearboxes are key actuator components that can account for roughly half of a humanoid robot's manufacturing cost. The gearboxes enable precise motion transmission with high torque capacity by delivering high gear reduction in a compact form factor.
- Schaeffler has opened a state-of-the-art lighthouse factory for humanoid robotics in Taicang, China. It houses an intelligent assembly line, a training and data acquisition center, a platform for digital twins, and a data center across approximately 7,500 square meters of floor space. The building covers the entire process from testing of individual robot skills to application in the actual manufacturing environment, showing what "humanoids making humanoids" looks like in practice: humanoid robots assembling key joint modules – including actuators – for the next generation of humanoid robots. The Lighthouse Factory marks the start of mass production of these components for Schaeffler and offers customers and partners the opportunity to train and test physical AI systems in actual industrial conditions. It therefore serves to drive adoption of humanoids in industry. Schaeffler's business also reflects the booming demand in this growth field: The company recently announced the acquisition of two new customers from the Greater China region in Q3 2026. With this, global incoming orders for humanoid robotics rose to some 400 million euros.

Humanoid

In September, we met with Humanoid's management team, toured its facilities, and discussed the company's medium-term technical roadmap. We came away positively surprised by the pace of progress and observed wheeled humanoids executing picking and sorting workflows that appear relevant for industrial/automotive environments as well as logistics and services.

Strategically, Humanoid is building an ecosystem that, in our view, directly targets the key de-risking steps required for n. Bosch provides a pathway to scalable European manufacturing and n through contract manufacturing plus Design-for-Excellence support. Schaeffler brings both actuator supply/co-development and the potential for meaningful end-customer deployment at scale, creating a two-way loop where factory data can feed product iteration and AI skill development. Siemens serves as an industrial validation venue, where PoC logistics loops help establish reliability and integration credentials. Finally, NVIDIA underpins the AI/simulation stack, supporting simulation (Isaac Sim/Omniverse), accelerated compute/edge processing, and reinforcement-learning-based skill training.

Latest News & Announcements

- Humanoid is expanding its collaboration with NVIDIA to underpin the onboard

compute and runtime architecture for its next-generation AI-powered humanoid robots, including the development of a high-performance robotic edge runtime designed to run increasingly sophisticated AI directly on the robot for real-time perception, reasoning, and response. The integration spans NVIDIA Jetson Thor (onboard compute), NVIDIA Isaac OS (deterministic GPU-native runtime), and NVIDIA Holoscan (Sensor Bridge + SDK) to accelerate sensor-to-AI pipelines and lower latency across perception, inference, and control, with multi-gigabit Ethernet highlighted as enabling up to 100Gb bandwidth for sensor and command/control traffic.

- Humanoid announced a $152m Series A financing at a $1.35bn post-money valuation, bringing total capital raised to $270m. The round was led by Prime Movers Lab, with strategic participation from Schaeffler and Bosch alongside Fubon Financial Holding Venture Capital and Aglaé Ventures. Proceeds are earmarked to accelerate the company's next growth phase, including development and launch of its next-generation humanoid platform, expansion of commercial deployments across logistics/manufacturing/retail (beginning with beta robot rollouts in Q4 2026), the start of mass manufacturing for its wheel-based humanoid robots, and continued AI/software investment in its proprietary KinetIQ AI brain toward a more general-purpose industrial robot.

Figure 8: Humanoid x Bosch



Source: Company data.

Figure 9: Humanoid x Schaeffler



Source: Company data.

Tesla

Tesla (covered by Rajat Gupta) has begun early production of production-quality Optimus humanoid robots on high-volume lines at its Fremont, California factory (in space previously used for vehicles), as announced in its Q3 2026 shareholder update and earnings materials (released October 21, 2026). Recent comments from Elon Musk during the latest third quarter results: Musk described this as "early production." He emphasized that the ramp will be slow and "somewhat bumpy" because Optimus is a radically new product—comparing the process to an S-curve whose initial slope is shallow, with progress limited by the slowest of roughly 10,000 things that must go right.

Other notable comments:

- Tesla has the vast majority of a million-unit-per-year production line in place in Fremont. Reaching ~20,000 units per week (roughly an annualized rate of 1 million)

is expected to take at least a year, and possibly a bit longer, because design elements are still changing.

- Remaining work focuses on design tweaks for safety, reliability, and long-duration operation (the robot must not wear out quickly), plus AI capabilities for open-ended/ useful tasks, l refinements, and overall lifespan. Musk expects these issues to be largely solved around the end of 2027.
- External customer deliveries (initially to industrial companies for dangerous or repetitive work) are targeted for around the end of 2027.
- Tesla plans to release a video of Optimus performing non-preprogrammed ("not canned") tasks in roughly one to two months.
- An "Optimus Academy" is being set up so robots can practice tasks and generate training data. Integration of the next-generation AI5 chip is targeted for around April 2027 and is expected to deliver a significant intelligence improvements.
- Musk reiterated that he remains convinced that Optimus (and humanoid robots in general) will be "the biggest product on Earth."

Neura Robotics

- Neura Robotics and the Technical University of Munich (TUM) opened the **TUM RoboGym powered by NEURA** at LabCampus near Munich Airport, a 2,300+ square meter center designed to combine research, robot training, and industrial application in partnership with TUM's Munich Institute of Robotics and Machine Intelligence (MIRMI). The facility is positioned as a bridge between AI research and deployment: companies bring concrete tasks and process know-how, while researchers and engineering teams focus on improving how quickly robots can learn those tasks and execute them more reliably across use cases spanning manufacturing and logistics through to agriculture and healthcare.
- **Alongside the opening, NEURA unveiled its next-generation humanoid robot, 4NE1 Gen 4 (For Anyone),** positioned for serial production and described as ~20% lighter than its predecessor, with a slimmer form factor (black textile outer skin), an upgraded motion-control system, and operation on Neuron AI—NEURA's Physical-AI foundation model. NEURA also framed the Munich RoboGym as the first node in a planned international network of NEURA Gyms, leveraging real-world robot data, human demonstrations, and simulation to build a scalable robotic learning infrastructure.
- **NEURA Robotics and NXAI announced a collaboration to develop a dedicated memory component for cognitive robots,** extending NEURA's Neuron AI, its multimodal physical-AI foundation model that fuses 3D vision, touch, audio, robot-state signals and language, by integrating NXAI's xLSTM recurrent architecture (developed under Prof. Dr. Sepp Hochreiter) to efficiently hold and update state over long sequences. Strategically, the goal is to enable robots to track multi-step tasks and act based on accumulated experience rather than treating each situation as a fresh start. As part of the partnership, NXAI also plans to make an xLSTM-based model available on NEURA's Neuraverse platform, alongside Neuron AI, reinforcing the company's push toward an open ecosystem around Physical AI.
- **NEURA Robotics also introduced Neuron AI, its in-house multimodal foundation model for Physical AI,** built around a Perception-Language-Action architecture that fuses 3D vision, touch, audio, robot-state data and language with a memory layer. The company positions this as enabling robots to act on multisensory

cues beyond what cameras can capture and to retain context when objects move out of view, supporting more robust, real-world task execution. Neuron AI is trained on a mix of real-world robot data, simulation-amplified data, and human demonstrations and is designed to run across five NEURA robot embodiments (including associated grippers/hands), with customers able to fine-tune the model for their own tasks and deploy skills across fleets via the Neuraverse platform, using "Time-to-Skill" as the key performance metric.

- **NEURA Robotics is also expanding its Physical AI strategy into healthcare and life sciences,** positioning its open Neuraverse ecosystem as the connective layer linking robots, sensors, and AI to help relieve care teams facing staffing shortages and capacity constraints. As an initial dedicated application, the company highlighted an autonomous mobile robot designed to transport empty beds between wards and floors on request, which it estimates could return more than ~1,300 hours per year to care teams for direct patient-care activities. To support this vertical push, NEURA has established NEURA HealthTech as a dedicated expert business unit within the company.

Toyota Group

Toyota Group announced plans to invest **¥1 trillion ($6.42 billion) annually from 2028 to update factories and deploy 400,000 robots worldwide, including AI-powered humanoid workers.** These robots will learn the skills of veteran workers through cameras and sensors, enabling skill transfer without complex programming. The deployment covers **150,000 robots at Toyota Motor Corp. and 250,000 at group companies like Denso and Aisin.** Humanoids will be programmed to replicate the movements and skills of Toyota's master craftsmen, with the potential for robots to teach humans in the future. The flagship humanoid, named Eley, weighs 50 kg, uses two-fingered hands rather than a full humanoid grip, and moves on wheels powered by battery or cord instead of walking.

Eley learns by observing Toyota's own workers rather than relying primarily on external datasets or simulations: employees wear finger-shaped jigs modeled on the robot's hands while repeating routine tasks, letting Eley learn its technique directly from demonstration. At a technology briefing at Toyota's European headquarters earlier in September, the robot folded T-shirts with near-perfect accuracy after 1,500 practice sessions over two weeks.

Toyota eventually plans to share centrally learned data across its factories worldwide, so robots in different countries can acquire the same skills without repeating the training process locally. However, this rollout leans on the infrastructure Toyota has built over decades, and may therefore be outdated, rather than starting from a blank slate. As it stands, the group operates 60 factories globally and employs 18,000 veteran "takumi" workers, whose expertise it intends to capture as training data, and plans call for robots to help train new human employees as well as learn from existing ones.

More recently, however, the focus has shifted towards Large Behavior Models developed through the Toyota Research Institute, which use diffusion-based generative AI to teach robots physical skills, such as pouring a liquid or using a tool, from just a few minutes of human demonstration rather than manually coded instructions. The automaker has separately partnered with Agility Robotics to deploy bipedal Digit humanoids for tote handling and logistics tasks at sites including Toyota Motor Manufacturing Canada.

Honda

Honda highlighted a renewed push into humanoid/teleoperated robotics at the 2026 Japan Mobility Show in Tokyo, demonstrating its wheel-mounted Avatar robot equipped with an AI-enhanced, four-finger mechanical hand capable of delicate manipulation. In the demo, the robot used camera eyes and remotely guided control to pick up threaded bolts and ratchet them into a gearbox case, underscoring dexterous hand control as a key bottleneck to broader factory deployment. Honda CEO Toshihiro Mibe said the company is already rethinking future vehicle design from the earliest development stages to make cars easier to assemble with humanoid robot workers, drawing a parallel to prior design changes driven by earlier shifts in assembly-line automation. Honda also noted it is testing the Avatar Robot on factory tasks in Japan—such as wire-harness installation—positioning avatar robotics and hand technologies as potential future growth businesses, while leveraging its legacy robotics foundation (ASIMO) through continued development of an Asimo OS concept for its software-defined vehicle roadmap.

Mitsubishi

Mitsubishi said in July that it will partner with Japanese robotics startup Highlanders Inc. to develop humanoid robots intended for deployment in its factories, and plans to mass-produce the robots at its engine plant as early as 2027—positioning the initiative as part of its efforts to expand beyond its core automotive business.

Agile Robotics

Agile Robots said its CEO expects physical AI to be 10x bigger than automotive and announced Agile ONE, a 174 cm humanoid robot with a 20 kg payload that has entered initial production and is targeted at manufacturing, logistics, and assembly. The Munich-based company opened its engineering labs and manufacturing operations to journalists and highlighted an integrated stack spanning robotics, data, AI models, software, and hardware. Agile Robots said it employs more than 3,500 people, including 2,000 R&D specialists, and has deployed more than 20,000 automation systems worldwide.

Wandercraft

French robotics firm Wandercraft has signed 12 industrial clients in under a year, with Renault planning to deploy 350 humanoid robots as early as 2027. The company said the robot will be Calvin-40, an autonomous humanoid that can lift up to 40kg. A future version is intended to carry 50kg. Calvin is designed for heavy, repetitive tasks in industry and logistics, such as moving cartons and crates and carrying loads between workstations. Wandercraft said it operates without a teleoperator and can be integrated into existing facilities without changes to their infrastructure. The robot uses 3D vision, autonomous navigation and adaptive control to perceive its surroundings. The technology is built on Wandercraft's proprietary physical AI platform, and the company said its partnership with Renault Group would help it move towards large-scale production. Wandercraft has opened a new 4,300 sq. Meter headquarters in Paris earlier this month. The site houses research and development, production and maintenance, with 800 sq. meters set aside for assembling, storing and maintaining robots. The company said the site has a production capacity of one robot per hour. It has also set a target of producing one million robots a year, which it said would rely on a largely European production base. On 1 October, Wandercraft announced the acquisition of US firm Ekso Bionics, which the company said makes it the global leader in medical

exoskeletons. It said its Atalante X and Ekso's EksoNR devices are used in more than 700 rehabilitation centres worldwide.

Chery Group

AiMOGA, Chery Group's intelligent robotics brand, is preparing to launch a new home robot at the 2026 Chery International User Summit. AiMOGA's portfolio includes humanoid robots and robotic dogs, with over 3,000 units delivered globally and deployments across automotive, retail, public information, smart policing, healthcare, and reception services. The new home robot is designed for everyday household needs and will further expand AiMOGA's reach.

Xpeng

XPeng is moving its humanoid robot, IRON, toward n, with mass production targeted for late 2026, initial deliveries expected in 1H27, and a Europe rollout planned for 2H27. In Sep'26, the company commissioned what it described as the world's first automated production line for advanced humanoid robots, with more than 80% of core manufacturing processes automated; notably, the first IRON unit reportedly autonomously walked off the line at completion. On the technical side, IRON is positioned as a high-dexterity platform with 76 degrees of freedom (including ~21–22 DOF per hand) and is powered by three in-house Turing AI chips delivering ~2,250 TOPS, running a physical-AI foundation-model stack.

Apptronik

Apptronik announced the launch of Apollo 2, its updated humanoid robot, and the opening of its expanded Robot Park, a flagship data collection and training facility for humanoid robots in Austin, Texas. Apollo 2 is available in both bipedal and wheeled-base configurations and is designed to learn real-world work through large-scale data collection across diverse tasks and environments. As part of Apptronik's research partnership with Google DeepMind, data collected by Apollo 2 will help advance Gemini Robotics, Google DeepMind's foundation model for robotics. The Austin facility joins other Apptronik Robot Parks at customer and partner sites worldwide, forming an integrated system for rapid development and deployment of humanoid robot intelligence.

Companies Discussed in This Report (all prices in this report as of market close on 29 October 2026, unless otherwise indicated)
BMW(BMWG.DE/€57.60/OW), Honda Motor (7267)(7267.T/¥1,763/N), Mercedes-Benz Group AG(MBGn.DE/€40.69/OW), Mitsubishi Motors (7211)(7211.T/¥343/UW), Schaeffler AG(SHA0.DE/€6.03/N), Tesla Inc(TSLA/$403.30/N), Toyota Motor (7203)(7203.T/¥3,077/OW)

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