



The Future of Humanoid Robots

1st Edition

The Future of Humanoid Robots is a strategy report from Berg Insight analysing the latest developments on the humanoid robot market worldwide. This report provides you with 160 pages of unique business intelligence, including 15-year industry forecasts, expert commentary and real-life case studies on which to base your business decisions.

Shipments of humanoid robots to reach 26 million by 2040

Humanoid robots are robotic systems designed to resemble the human body and movements, operating in environments originally built for humans. The most significant advantage of humanoid robots compared with traditional industrial robots is their ability to perform a wide variety of tasks, navigate complex surroundings and use existing tools without requiring extensive modification to the existing infrastructure. Recent advances in crucial technology linked to humanoid robotics, including actuators, foundation models and battery technology, have significantly accelerated the development of the humanoid robotics market. These improvements enable robots to perform increasingly complex tasks with higher levels of autonomy across sectors such as manufacturing, warehousing, logistics and retail applications, while opening opportunities for future use in domestic environments. In addition, labour shortages, ageing populations and the need for flexible automation are expected to become important long-term drivers for the adoption of humanoid robots.

Berg Insight considers the humanoid robotics industry to have entered the early stages of a long-term growth phase. During 2025 and 2026, the industry experienced a shift from primarily research- and prototype-oriented activities towards pilot deployments, initial commercial deliveries and investments in large-scale manufacturing capabilities. This transition has been supported by increasing activity among both established technology companies and specialised humanoid robotics start-ups, contributing to the development of commercial solutions and a broader market ecosystem. Although commercial deployments remain limited, increasing technological maturity and substantial investment activity suggest that the market is approaching an important commercial inflection point.

Berg Insight estimates that annual humanoid robot shipments will grow from 16,000 units in 2025 to 26 million units by 2040, corresponding to a compound annual growth rate (CAGR) of 63.7 percent. During the same period, the global market value is forecasted to increase from US\$ 890 million to approximately US\$ 554 billion. Use cases in manufacturing, logistics and warehousing are expected to account for the majority of deployments during the forecast period, while domestic applications are anticipated to emerge gradually as robot capabilities improve and hardware costs decline.

The number of market participants has increased rapidly in recent years, resulting in a highly fragmented competitive landscape with more than 100 companies currently developing humanoid robots. Only a limited number of vendors have entered early commercial production or begun scaling manufacturing capacity. The competitive dynamics differ across regions. China currently represents the largest market, followed by the US and Europe. Chinese companies generally leverage cost-effective manufacturing, established domestic supply chains and rapid commercialisation, while US-based companies have a stronger focus on software capabilities and strategic partnerships with leading technology companies. The European vendor landscape represents an emerging but important part of the market, leveraging strengths in industrial automation, robotics research and specialised technology development.

The humanoid robotics industry has experienced unprecedented investment activity during 2025–2026. Multiple funding rounds have exceeded US\$ 1 billion, reflecting growing investor confidence in the commercial potential of humanoid robotics. Venture capital firms are increasingly joined by strategic investors including NVIDIA, Microsoft, Google, Amazon, Hyundai, OpenAI and other major technology companies. Investment activity has also shifted towards later-stage financing, supporting manufacturing expansion, production scaling and commercial deployment rather than early-stage research alone.

Artificial Intelligence (AI) has become one of the most important competitive factors in the humanoid robotics industry. Competition is increasingly driven by proprietary embodied AI, foundation models, robot operating systems and software ecosystems rather than hardware performance alone. Strategic partnerships between humanoid robotics companies and leading AI technology providers are therefore becoming increasingly important for accelerating commercialisation and improving robot capabilities. At the same time, manufacturers are making substantial investments in production facilities designed to manufacture tens of thousands of humanoid robots annually, reflecting expectations of future large-scale demand.

The leading vendors in the humanoid robotics industry include Figure AI, Tesla, Agility, Boston Dynamics, Appteronik, 1X Technologies, NEURA Robotics, Unitree Robotics, UBTECH Robotics, AgiBot, Leju Robotics, EngineAI, RobotEra and several other rapidly growing companies. Competition is expected to intensify significantly in the next years as companies transition from pilot deployments to large-scale commercial production.

Overall, Berg Insight believes that humanoid robotics has moved beyond the experimental stage and entered the early phase of commercialisation. Although significant technical challenges related to reliability, dexterity, battery performance and safety remain, continued advances in AI, increasing manufacturing capacity and record levels of investment indicate that humanoid robots have the potential to develop into a major new technology and product category over the coming decades.

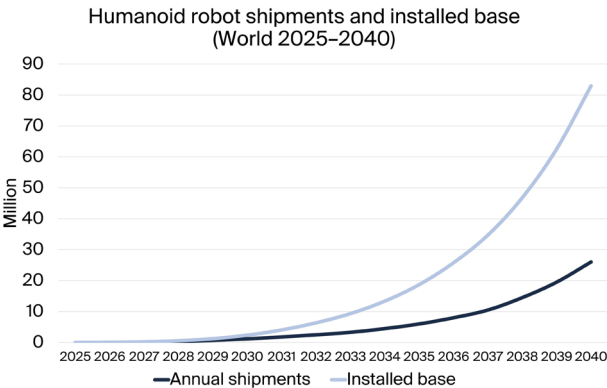


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Glossary

Highlights from the report

Insights from numerous interviews with market leading companies.

Technology assessment covering key hardware, software and AI technologies.

Comprehensive overview of the humanoid robot value chain and key application areas.

Adoption drivers and barriers shaping the uptake of humanoid robots.

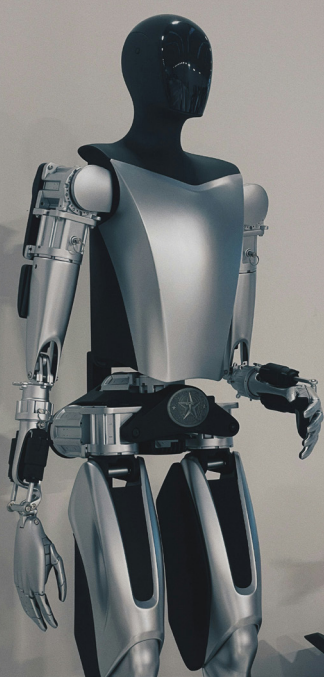
In-depth analysis of market trends and key developments.

Detailed profiles of 30 key humanoid robot vendors.

Market forecasts on shipments, installed base and market value lasting until 2040.

This report answers the following questions

- What is the current status of the humanoid robot industry?
- Which are the leading vendors of humanoid robots?
- How will technology developments affect the humanoid robotics market?
- Which are the main drivers and barriers on this market?
- Which trends and developments are shaping the humanoid robot market?
- How will the market evolve in Europe, North America and China?
- What are the recent merger and acquisition activities in this market?
- How will connectivity strategies on this market evolve in the future?



About Berg Insight's IoT market research

Our market reports offer comprehensive information and analysis on key IoT technologies and markets, addressing important concerns including total addressable market, market penetration, market shares, industry landscape, regulatory environment, market trends and forecasts. Our research portfolio today comprises more than 85 items, where each market report focuses on a specific vertical application area or cover horizontal themes. All market reports come with complementary data sets in Excel format that can be easily analysed and converted into tables and charts. We offer a range of different license options together with bundled packages and subscriptions to suit your specific needs.



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The Future of Humanoid Robots

This study investigates the worldwide market for humanoid robots in both B2C and B2B use cases. The active installed base of humanoid robots is forecasted to grow at a compound annual growth rate of 73.7 percent from 21,000 units at the end of 2025 to 83.0 million units by 2040. Get up to date with the latest information about vendors, products and markets.

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Who should read this report?

The Future of Humanoid Robots is the foremost source of information about the adoption of humanoid robotics in a number of B2C and B2B use cases. Whether you are a humanoid robot manufacturer, technology vendor, industrial automation player, telecom operator, investor, consultant, or government agency, you will gain valuable insights from our in-depth research.

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