

# 2025-2035 METATREND REPORT

## THE RISE OF HUMANOID ROBOTS

Meet the Top 16 Humanoid Robots Shaping the Decade Ahead,  
and their Impact on Industries, Society and our Economy

### 16 Major Players

#### 5 Market Leaders

Tesla (Optimus)

Figure AI (Figure 02)

Agility Robotics (Digit)

Boston Dynamics (Atlas)

Unitree (H1, G1)

#### 11 Up-and-Comers

1X Technologies (NEO)

Agibot (Yuanzheng A2)

Apptronik (Apollo)

Beijing HRIC (Tiangong)

EngineAI (SE01)

Engineered Arts (Ameca)

Fourier Intelligence (GR-2)

Kepler (Forerunner K2)

Robot Era (Star1)

Sanctuary AI (Phoenix)

Xpeng

"We will have 10 Billion Humanoid  
Robots on Earth by 2040."

— **Elon Musk**

# 7 KEY TAKEAWAYS ON HUMANOID ROBOTS

**1 Market Explosion:** The humanoid robots market is poised for exponential growth, with projections ranging from \$38 billion by 2035 (Goldman Sachs) to a staggering \$24 trillion (Ark Invest). In the U.S. alone, at the lower-bound, Morgan Stanley estimates 63 million humanoid robots could be deployed by 2050, potentially affecting 75% of occupations and 40% of employees. On the upper bounds, Brett Adcock and Elon Musk predict as many as 1 billion to 10 billion humanoid robots by 2040.

**2 Technological Convergence:** The rapid advancement of humanoid robots is driven by converging breakthroughs in AI, hardware components (actuators, sensors), and battery technology. Multimodal generative AI in particular is enhancing robots' adaptability and decision-making capabilities, while hardware costs are plummeting.

**3 Labor Shortage Solution:** Humanoid robots are emerging as a critical solution to global labor shortages, particularly in elderly care, manufacturing, and dangerous jobs. By 2030, the U.S. is projected to have a 25% "dependency ratio" of people over 70, driving demand for robotic assistance in health-care and social care. In China and other parts of Asia and Europe, an aging population and lower birth rates make humanoid robotics critical for their economy.

**4 Cost Reduction Trends:** The cost of humanoid robots is plummeting rapidly, with high-end models dropping from \$250,000 to \$150,000 in just one year: a 40% decrease compared to the expected 15-20% annual decline. Ambitious targets, such as Tesla's goal of a \$20,000 selling price for its Optimus robot, suggest mass adoption will become feasible across various sectors.

**5 Investment Opportunities:** The humanoid robot sector is attracting significant investment, exemplified by Figure AI's recent \$675 million funding round at a \$2.6 billion valuation. Morgan Stanley's "Humanoid 66" list provides a roadmap for investors interested in both robotics developers and potential beneficiaries across various industries.

**6 Broad Societal Impact:** The widespread adoption of humanoid robots has the potential to usher in an era of unprecedented abundance, dramatically reducing the cost of goods and services while freeing humans to focus on creative and fulfilling pursuits. This transformation could reshape our concept of work and fundamentally alter the structure of our economy and society.

**7 Job Disruption:** The speed at which multimodal generative AI and humanoid robot development is progressing, paired with the lack of public discourse on this subject, indicates that there will be significant job disruption and societal upheaval. Mechanisms to address these concerns such as universal basic income (UBI), will need to be addressed. Some have proposed funding such UBI programs by taxing companies which utilize "robots and AIs" to displace previously human-filled jobs.