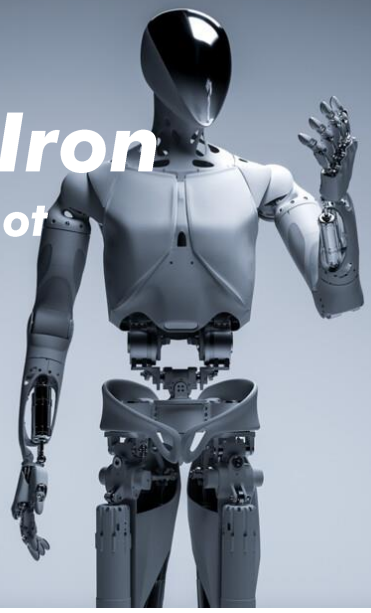
XPENG AI Robot Iron

XPENG's Latest Humanoid Robot



Overview

XPENG AI Robot Iron represents the latest leap in XPENG's exploration of humanoid robotics, showcasing cutting-edge advancements in AI and robotics technology. Following its acquisition of the original team behind Pengxing Robotics in 2023, XPENG has rapidly accelerated its vision of creating highly intelligent humanoid robots. With Iron, XPENG aims to revolutionize the future of robotics, moving toward fully autonomous, human-like robots.

Key Features

- **Design**: Human-like structure with 1:1 proportional hands and 22 movable degrees of freedom for flexible and precise object manipulation.
- **Mobility**: Advanced walking capabilities powered by end-to-end large models and reinforcement learning technology, enabling natural, fluid movements, and stable walking without the jerky actions of traditional robots.
- **Speech Interaction**: Equipped with a voice system derived from XPENG's intelligent cockpit, capable of active reasoning and logical thinking for natural, human-like conversations.
- **Self-Driving Tech**: Built on XPENG's AI automotive technology, Iron utilizes the same core AI technologies that power XPENG's electric vehicles, creating a seamless connection between the automotive and robotics ecosystems.

Technological Advancements

- **AI & Software**: Iron features XPENG's in-house developed "Turing AI chip" for hardware and "Tianji AIOS" for software, delivering high-level intelligence for perception, speech interaction, and movement control.
- **Vision System**: Equipped with AI "Eagle Eye" visual system powered by cameras, ensuring highly accurate perception and decision-making.
- **Dexterity & Manipulation**: High freedom and precision in hand movements, utilizing XPENG's proprietary high-degree-of-freedom robotic hands.
- **Customization**: Fully customized mechanical and electronic systems including self-developed actuators and joints for high mobility and adaptability.