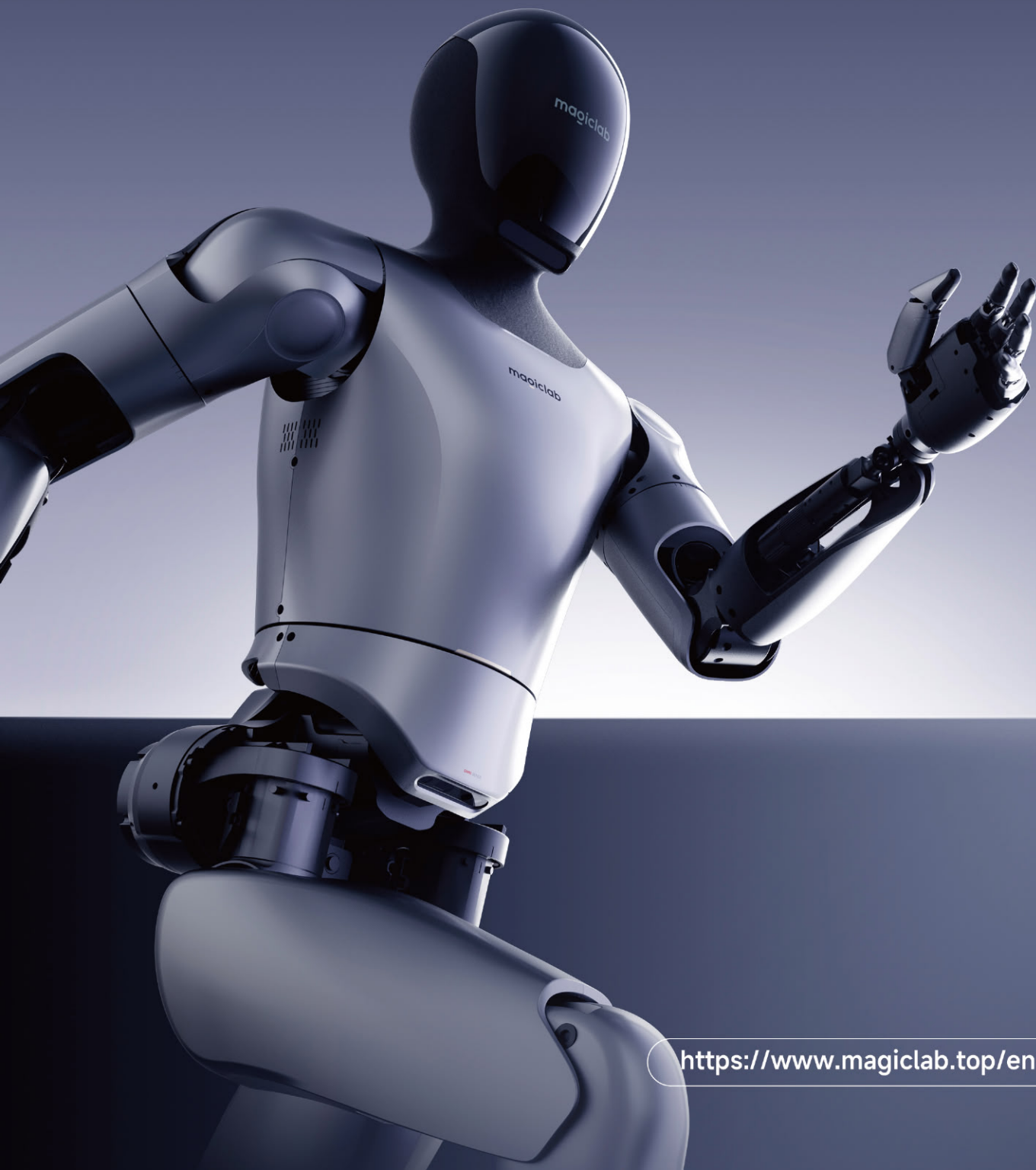


magiclab

MagicBot Gen1

Full-Size Universal Bipedal Humanoid Robot



<https://www.magiclab.top/en/human>

Magicalab 'Xiaomai' Enters Every Industry

- Superior overall design language, featuring 42 active degrees of freedom throughout the body and a precision multi-sensor layout.
- Proprietary high-performance five-finger dexterous hand with robust joint modules.

Commit to In-House R&D to Master Core Competitiveness

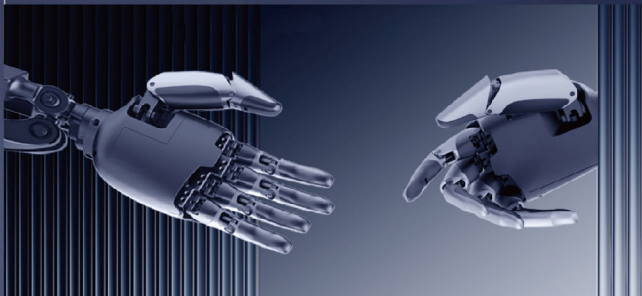
Five Nimble Fingers, Skillfully Grasping All Things

Single-hand 11 DOF

High-precision tactile sensors for fingertips, five per hand

Tactile sensor resolution: 0.1 N

Single-hand load: 5 kg



Superior Joint Modules, Driving Infinite Possibilities

Superior Torque:

Peak joint torque $\geq 350 \text{ N}\cdot\text{m}$

Ultra-high precision:

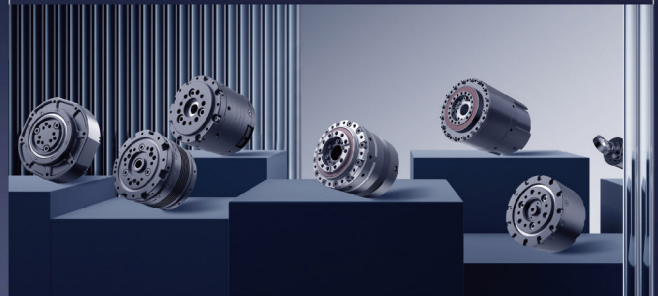
Dual encoder control for enhanced accuracy

Flexible Communication:

Supports CAN FD/EtherCAT communication

Safe and Reliable:

Real-time temperature protection strategy,
comprehensive safeguarding



Visual Perception and Navigation Technology Stack, Go with Your Heart

- Multi sensor coupling system combined with self-developed software architecture and navigation algorithm
- 360 ° Global Scene Perception
- Intelligent adaptation to various complex terrains and scenes



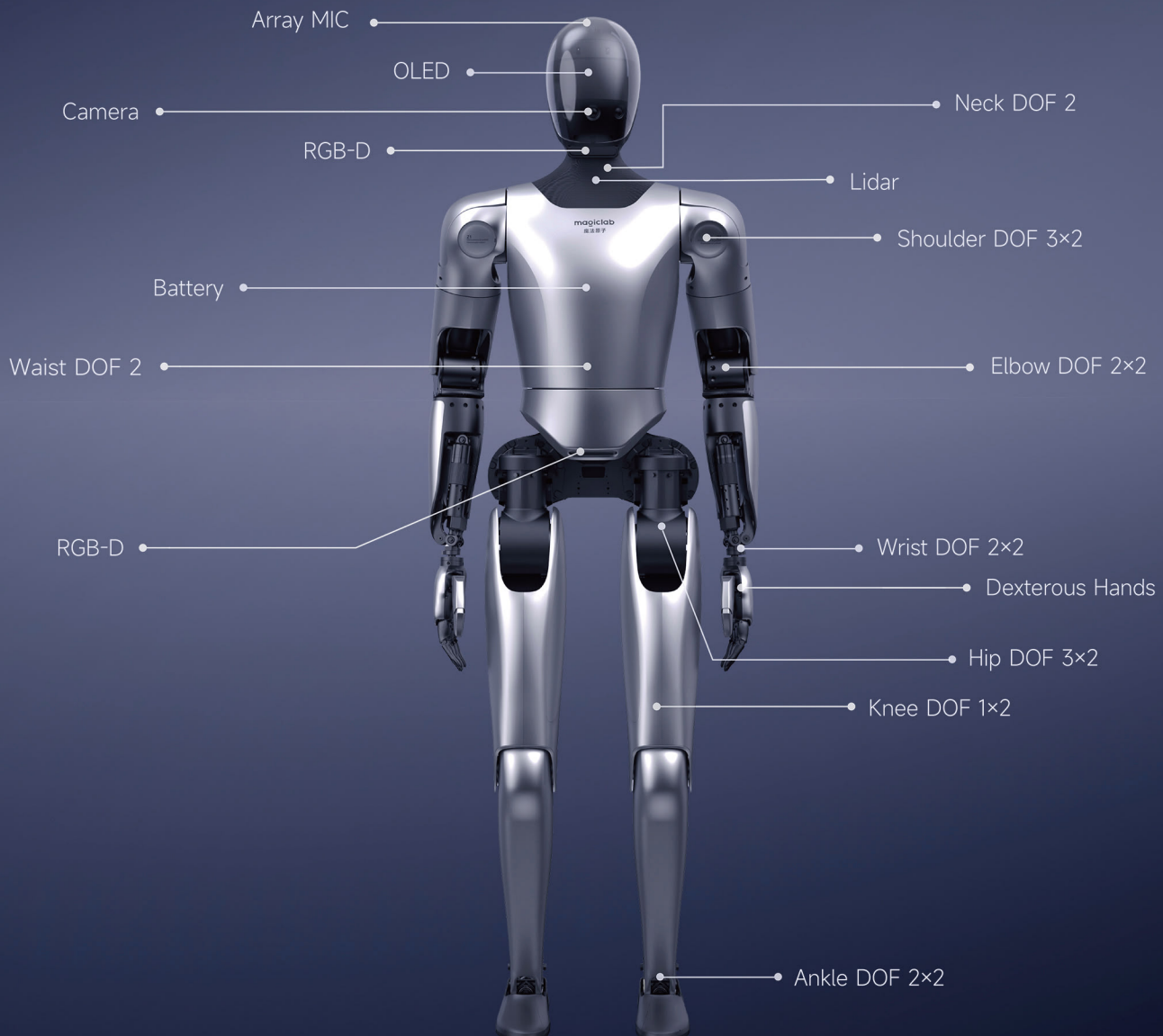
Parameters and Configuration

Specifications	MagicBot Gen1	Speed	≥5km/h
Height	1740×580×280mm	Basic Computing Power	8-Core High-Performance CPU
Weight(including battery)	≈70kg	Perceptual Computing Power	100TOPS
Total DOF	42	Expand Computing Power	Optional
Neck DOF	2	Perception Sensor	3D LiDAR+Depth Vision×2+Dual Fisheye Camera×3
Waist DOF	2	Battery Capacity	25Ah
Single-Leg DOF	6	Connection Method	WiFi6、Bluetooth 5.2、5G
Single-Arm DOF	7	Interaction	Wireless Remote Control+Personal Terminal(iOS、Android)+VR
Dexterous Hand DOF	Optional 11-DOF Tactile Dexterous Hand	Voice Sensor	Multi-Mrrays MIC+Speaker
Peak Torque of Joint Module	≥350N·m	OTA	Support
Single-Arm Maximum Load	7.5kg	Secondary Development Kit	Support
Legs lenth	95cm	Voice Interaction	Voice Command、Chatbots
Arm Span (Including Dexterous Hand)	≈160cm	Advanced Function	Optional Guide Mode, Factory Mode, etc.

* The maximum torque, maximum arm load, and endurance time were measured in a laboratory environment.

* The above explanation may vary in different business scenarios and model configurations, please refer to actual use.

* Advanced features involve customized development, non-standard features.



Stabilize Movement Function

Based on industry-leading motion control algorithms and proprietary navigation algorithms, it supports self-learning optimization of walking posture, enabling stable and continuous movement across diverse terrains, precise navigation, and autonomous obstacle avoidance capabilities.



Exhibition Hall Guide Function

Industry-leading guided tour reception + embodied intelligence solutions, supporting graphical task orchestration, large-screen synchronization, walk-and-talk functionality, resume playback from breakpoints, and more—delivering a new era of intelligent interaction.



Intelligent Data Collection Function

Leveraging high-performance robotic bodies and precision manipulation capabilities, combined with a full-stack data acquisition and training system, we build a powerful one-stop platform integrating embodied intelligence and data collection—driving the future with data.



Precision Operational Capability

Floating base design based on 6D vision servo and whole-body imitation learning enables precise motion execution. Flexibly adapts to diverse deployment scenarios, comprehensively covering demands from high precision to complex operations.



Guided Tours & Reception

MagicBot Gen1 delivers precise and engaging reception and commentary services through its anthropomorphic design and rich visual and auditory interactions. It significantly addresses numerous challenges in traditional exhibition hall narration, enhancing visitor immersion and brand appeal while driving operational cost savings and efficiency gains. This solution empowers you to create a truly distinctive “smart venue.”



Data Collection

Targeting embodied intelligence developers, industry application integrators, end-user enterprises, and research institutions, we provide high-performance robotic bodies, comprehensive data acquisition toolchains, and authentic data acquisition scenario libraries to accelerate the commercial deployment of embodied intelligence across industrial, home, retail, and service applications.



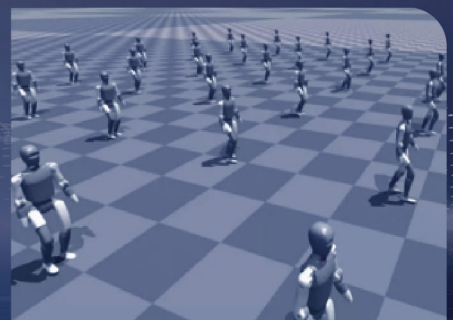
Industrial Manufacturing

Centered on humanoid robots and AI large models, leveraging robust in-house hardware platforms integrated with large models, we empower industrial manufacturing with “flexible production, human-machine collaboration, and cost reduction while boosting efficiency.” This addresses pain points such as labor shortages and poor adaptability across diverse scenarios. Relying on a full-stack self-developed technology system spanning both software and hardware, we cover typical operational demands in industrial settings—including material handling, sorting, and loading/unloading tasks.



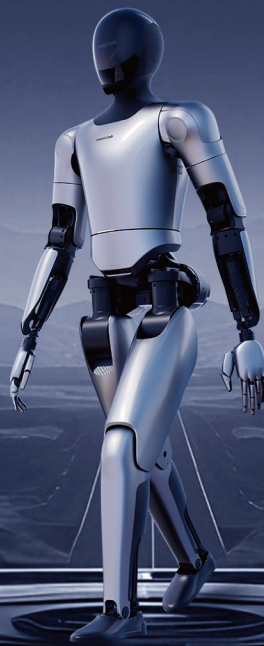
Research & Education

MagicBot Gen1 leverages a high-performance robotic platform, rich SDK functional interfaces, and flexible configurations like computing power backpacks. It focuses on serving research institutes and universities in cutting-edge algorithm validation and innovative research projects, dedicated to accelerating the transformation of scientific achievements and cultivating high-level talent. It provides a reliable platform and comprehensive solutions for the deep integration of embodied intelligence and scientific research education.



magiclab

Empowering Every Corner of the Earth with General-Purpose Robotics



MagicLab Robot Technology Co, Ltd | Tel: +86 400-828-8022 | Email: bd@magiclab.top



WeChat
Official Account



WeChat
Channel



Bilibili



Douyin
(Chinese TikTok)



LinkedIn



X



YouTube



Contact Us