

Your 24/7 Productivity Partner

AGIBOT A3 Ultra

24/7 Autonomous Operation | Versatile Task Execution | Comprehensive Safety



Product Overview

AGIBOT A3 Ultra is a commercial-grade,full-size,general-purpose humanoid robot, meticulously engineered. It fully inherits the motion and interaction capabilities of AGIBOT A3. Its 174 cm-tall slender frame enables seamless integration into human environments. Combined with an all-new robot body architecture and world-leading model capabilities, it delivers in 24/7 autonomous operation, versatile task execution, and all-domain safety—making it a "24/7 Productivity Partner." Equipped with a 360° vision and LiDAR fused perception system, powered by full-performance computing and a self-developed three-tier heterogeneous computing architecture, it autonomously builds semantic environmental maps and navigates complex terrain with ease. It comes standard with an advanced omnihand capable of independently completing end-to-end tasks. With UWB + RTK dual-fusion centimeter-level positioning, it enables seamless indoor-outdoor navigation. Supported by fully autonomous charging, unattended operations and maintenance, and four-layer active safety system, and refined through thousand-unit-scale mass production, it truly delivers out-of-the-box deployment and long-term reliability. It is widely adaptable to diverse scenarios including exhibition guided tours, hotel reception, shopping assistance, and other service scenarios—bringing humanoid robots into everyday life.

Product Highlights

01

24/7 Autonomous Operation

Your Reliable Around-the-Clock Partner

- LiDAR + multi-camera sensor fusion delivers 360° all-domain environmental awareness, overcoming the limitations of vision-only approaches
- 700 TOPS full-performance compute paired with a self-developed three-tier heterogeneous computing architecture enables autonomous task decomposition, path planning, and dynamic obstacle avoidance,eliminating the need for manual remote control
- 8-hour commercial-grade battery life with autonomous charging by locating the charging station and plugging in,10-second battery swapping, and a custom ADU air-cooling system for continuous 24/7 operation

02

Versatile Task Execution

A Capable Autonomous Partner

- Inherits A3's high-performance motion system and capabilities, equipped with industry-leading perception-control fusion technology for effortless traversal of complex terrain, including stairs and slopes
- Standard up to 20-DoF omnihands with omnidirectional tactile sensing for stable manipulation of objects from paper to 5 kg.
- Few-shot self-learning framework enables rapid skill acquisition from a single demonstration; natively compatible with LinkCraft and LinkSoul platforms for customizable motion choreography and character personas
- Inherits multimodal interaction capabilities and golden-ratio proportions, excelling across all scenarios including exhibition narration, hotel reception, retail guidance, and front-desk services

03

Comprehensive Safety

A Trusted, Gentle Companion

- Four-layer safety system: active perception with 3-meter-ahead risk prediction, passive force-control with contact-triggered stop, dual emergency stop with millisecond-level power cut-off, and intelligent fall protection to safeguard both humans and robots
- Validated through thousands of extreme-condition tests covering collisions,drops,and high/low temperature scenarios; human-robot interaction remains safe and controllable across diverse scenarios, enabling reliable commercial deployment
- Innovative hybrid chassis design combining magnesium alloy with a proprietary high-performance carbon fiber nylon composite, delivering higher motion efficiency, stronger dynamic response, and more stable reliability

04

All-Domain Connectivity

Seamless Indoor-Outdoor Collaboration

- UWB (indoor) + RTK (outdoor) fusion delivers centimeter-level positioning,with out-of-the-box deployment and seamless indoor-outdoor switching.
- Dual-band 5G global connectivity with dual eSIM and physical SIM support for global deployment, ensuring low-latency stable connections
- Natively compatible with LinkBots platform and its swarm control technology, supporting coordinated operation across hundreds of robots for efficient large-scale deployment and management

05

Premium Quality

Proven Stability and Reliability

- A pioneer in thousand-scale mass production of full-size humanoid robots, production-proven reliability, built on multiple product generations
- 92-step comprehensive inspection process following stringent automotive-grade testing standards, with core components validated for tens of thousands of hours of endurance, ready for long-term scaled commercial deployment

06

Reliable and User-Friendly

Effortless Out-of-the-Box Experience

- Retaining the A3's convenient deployment advantages, with shoulder touch sensing, autonomous entry into and exit from its transport case, foldable storage, SUV transportability, and rapid single-person deployment.
- End-to-end unattended operations and maintenance system with automatic fault self-diagnosis and modular design for easy maintenance, significantly reducing operational labor costs
- Fully open interfaces for advanced custom development, compatible with research, education, and customized scenario expansion needs

Application Scenarios

Reception & Guided Tours

Corporate showroom guided tour, hotel lobby reception, government front-desk duty, and office building visitor navigation—delivering 24-hour standardized service

Shopping Assistance

In-store/retail kiosk guidance, brand event interaction, and commercial district tours—autonomously completing presentations, guidance, and customer interactions

Patrol & Inspection

Outdoor park patrols, data center and facility checkpoint inspection, and environmental status monitoring—achieving long-distance autonomous operations with RTK precision positioning

Research & Education

Cutting-edge research, education, and secondary development in embodied AI

Data Collection

One-stop full-size humanoid data collection solution integrating data collection, training, evaluation, and deployment to simplify embodied intelligence data acquisition challenges

Stage Performance

Full retention of dance, formation, and customized performance capabilities—one device serving both daily commercial use and event exhibitions

Charging Method
Autonomous plug-in charging + 10-second battery swapping
Network Configuration
Dual-band global 5G, dual eSIM + physical SIM support
Swarm Control Capability
Supports hundred-unit coordination, compatible with LinkBots swarm control technology
Deployment Features
Autonomous box entry/exit, single-person deployment, support unattended operation and maintenance

Height
174CM
Weight
60KG
Perception System
LiDAR + surround-view cameras + dual depth cameras for 360° all-domain perception
Compute
700 TOPS full-performance flagship compute
Positioning System
UWB indoor + RTK outdoor dual-fusion positioning, accuracy < ±1 cm
Hand Configuration
Advanced omnihands with up to 20 DOF, omnidirectional tactile sensing
Standard Battery Life
8-hour long-duration operation



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