

Industrial-grade mobile platform Heavy-load wheeled paradigm

High-efficiency wheel-drive architecture combining payload capacity with agility.
Suited for industrial inspection, park logistics, and emergency rescue and more.



Superior adaptability Complex environments handled with ease

All-new high-quality mobile hardware platform, open architecture, ready to use, rapid development, more efficient deployment.



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UNITREE A2-W

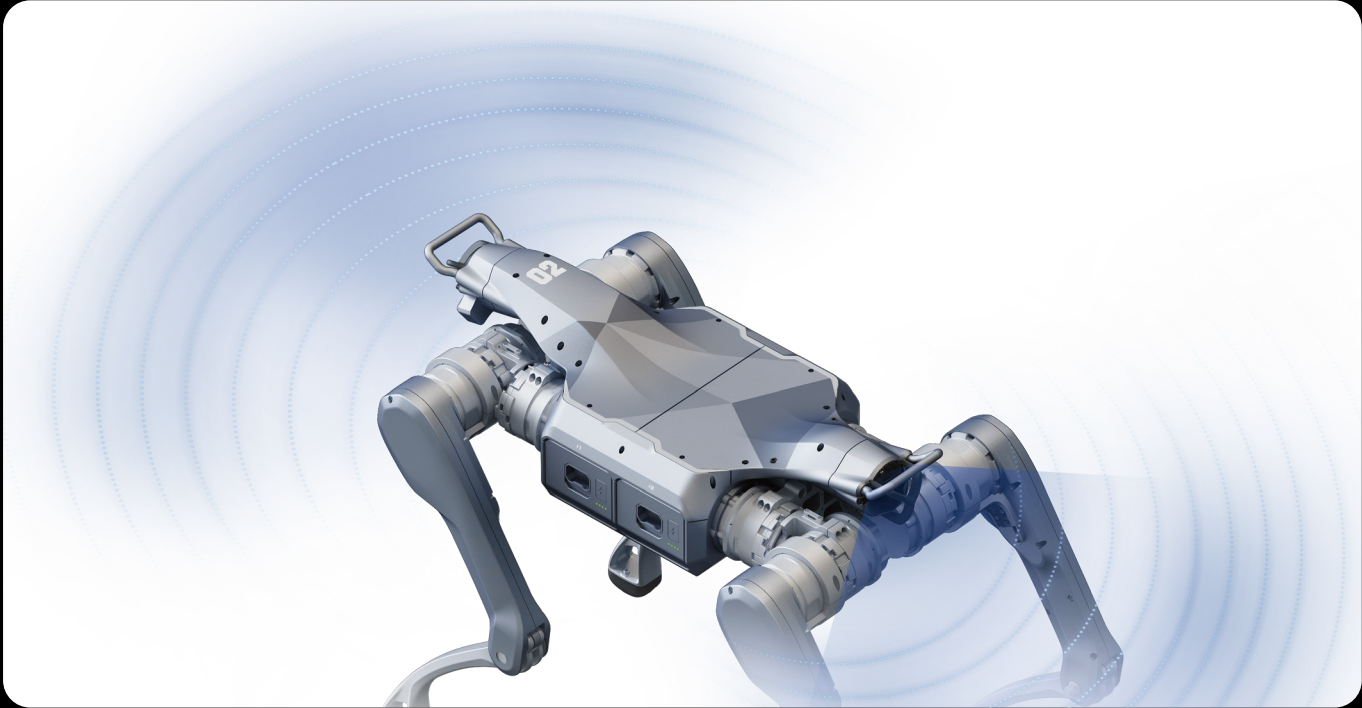
**Wheel Shadow
Speed Across the Field**

Continuous OTA Software Upgrade and Update



Dual-Sided Perception
Zero Blind Spots Greater Accuracy [4]

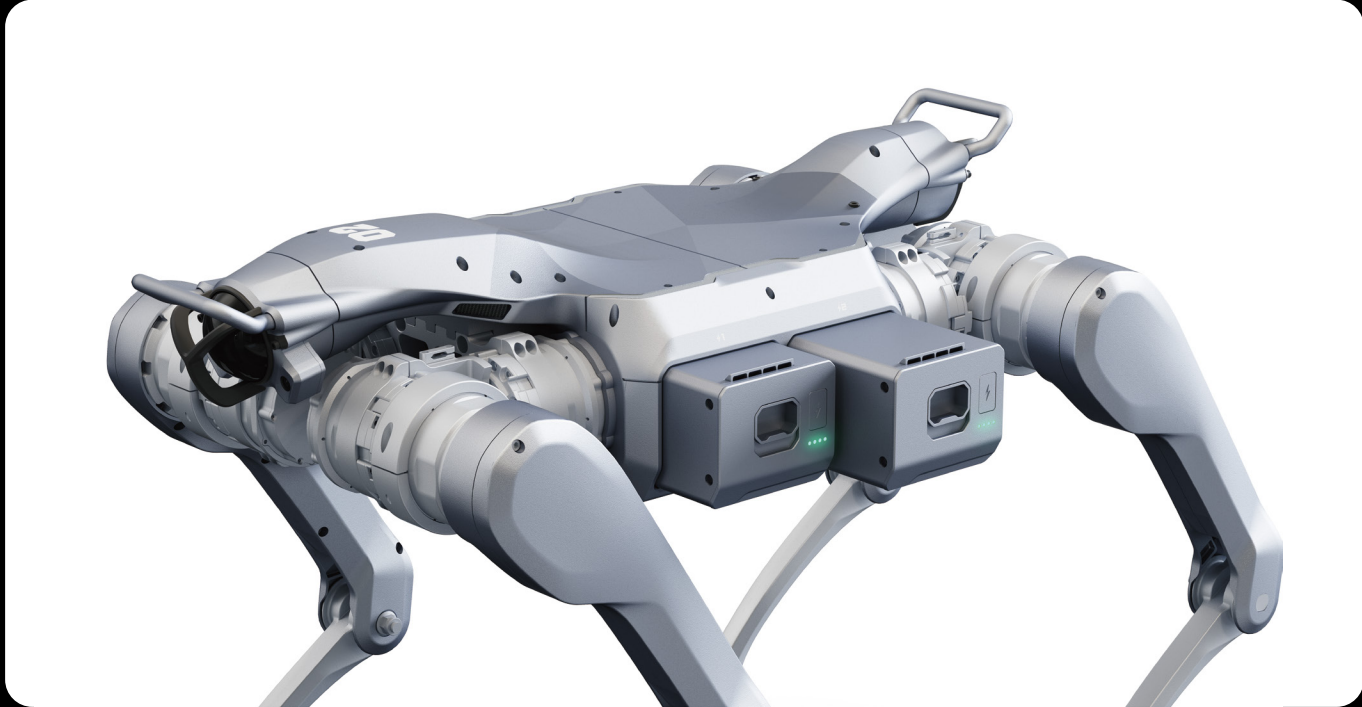
2 industrial LiDARs (front & rear) , HD camera + front light to detect the environment ahead



Dual Battery System

「Hot-Swappable Dual Batteries · Unlimited Runtime」 : Seamless Battery Swap, Uninterrupted Mission

Dual-battery parallel design: swap without stopping, the eternal heart for extreme missions
Reliable triple power system guarantees from -20°C to 55°C



Tracking module

Remote control or smart follow Choose freely

Perception Sensors

Industrial-grade LiDAR × 2 [4]

Front Light

Bright illumination
Lighting every step ahead

Voice Intercom Microphone

Seamless communication in any scenario

Smart Battery

Dual batteries:
9000mAh × 2
Dual slots,
hot-swappable

Rich Expansion Options

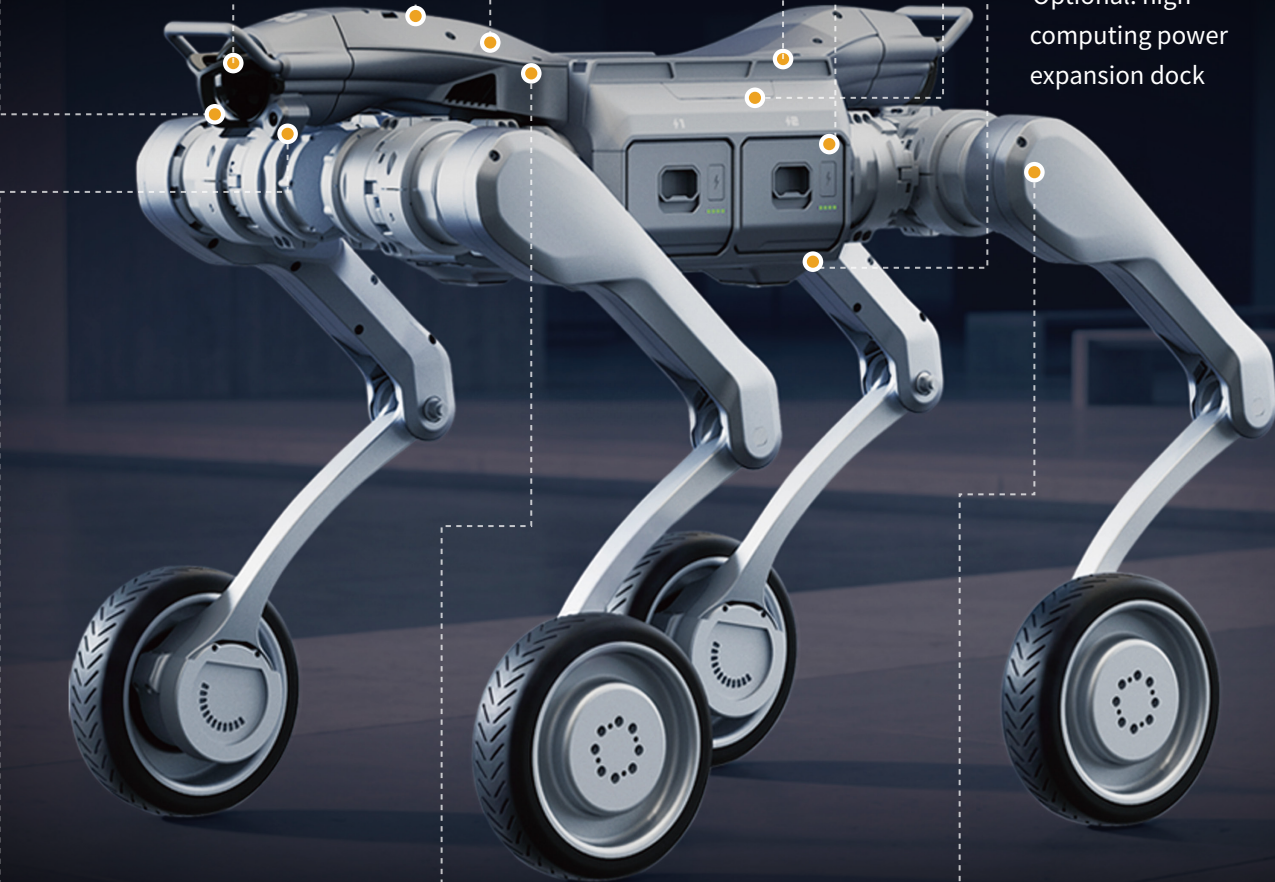
Optional rails
& external user interface

Rich External Interfaces

· RS485 × 2
· CAN × 2
· Gigabit Ethernet × 2
· USB 3.0 Type-C (8-Core CPU) × 2
· USB 3.0 Type-C (Intel Core i7) × 2
· Power Output: 12V / 24V / BAT

Powerful Computing Core

· Standard: 8-Core high-performance CPU (platform functions) + Intel Core i7 (user development)
· Optional: high computing power expansion dock



Front Camera

HD Camera ×1

Speaker

Real-time broadcast for operational safety

16 High Power-Density Motors

Low-inertia, high-speed inner rotor PMSM Surging power, uncompromised by heavy payloads

Model		A2-W	A2-W PRO
Mechanical Parameters	Size (Standing)	900mm x 440mm x 625mm	
	Size (Lying Prone)	930mm x 685mm x 210mm	
	Tyre size	Diameter:190mm;Width:51mm	
	Material	Aluminum Alloy + High-Strength Engineering Plastic	
	Weight (without battery)	About 45kg	
	Weight (with battery)	About 52kg	
	Degrees of Freedom (Joint Motors)	16	
	Joint Bearings	Industrial-grade crossed roller bearings (high precision, high load capacity)	
	Joint Motors	Low-inertia, high-speed inner rotor PMSM(enhanced response & heat dissipation)	
	Max Joint Torque	About 180 N.m	
Electrical Characteristics	Range of Motion	Body: -58~58°	Thigh: -134°~180° / -89°~225° Shank: -158°~-30°
	Supply Voltage	50.4V	
	Joint Encoder	Dual encoders	
	Cooling System	Local air Cooling	
	Power Supply	Dual slots, dual batteries	
	Battery Capacity	Single Battery 9000mAh (453.6Wh)	Dual Batteries 18000mAh (907.2Wh)
	Wi-Fi 6, Bluetooth 5.2	YES	
	Speaker	YES	
	Microphone	Microphone array	
	Front Light	YES	
Performance Metrics	Wireless vector follow module	/ (Optional)	YES (Expanded)
	GPS	/ (Optional)	YES (Expanded)
	4G	/ (Optional)	YES (Expanded)
	Sensor	LiDAR × 1 + HD Camera × 1	LiDAR × 2 + HD Camera × 1
	Control & Compute	Standard: 8-Core high-performance CPU (platform) + Intel Core i7 (user development)	Standard: 8-Core high-performance CPU (platform) + Intel Core i7 (user development) Optional: high computing power expansion dock
	External Interfaces	RS485 x 2 , CAN x 2 , Gigabit Ethernet x 2 , USB3.0-TypeC(8-Core CPU) x 2 USB3.0-TypeC (Intel Core i7)x2 , Power Output:12V / 24V / BAT	
	Operating Temperature	-20°C~55°C	
	Battery Life [1]	No Load:>3.5 hours continuous walking, approx. 35km With 25kg Load: >1.5 hours continuous walking, approx. 15km	
	Max Standing Load	About 100kg	
	Continuous Walking Load	About 25kg (Ideally, it can reach approximately 35 kg.)	
Other	Slope Walking Capability	About 45°	
	Stair Climbing Capability	Max Step Height: 30cm	
	Max Climb Height	About 0.5~1m	
	Speed	0~3 m/s (Up to ~ 6 m/s)	
	Ingress Protection Rating	IP56	IP56~IP67 (Core components rated IP67)
Other	Smart OTA Upgrade	Continuous Upgrades	
	Secondary Development [2]	Supported	
	Warranty [3]	12 Months	

[1]The above data was obtained under laboratory conditions. Actual performance may vary based on usage conditions, so please refer to your actual experience.
[2]For detailed functions, please refer to the Secondary Development Manual.
[3]For detailed warranty terms, please refer to the Product Warranty Manual.
[4]The above parameters may vary in different application scenarios and different configurations, please contact sales before purchasing.
[5]This quadruped robot has a complex structure and powerful dynamics. Users must keep a safe distance from the robot at all times. Please use with caution.
[6]The product appearance is subject to change. Please refer to the final product.
[7]Some example features shown on this page are under development and testing, and will be made available to users gradually.
[8]This product is a civilian robot. We kindly request that all users refrain from making any dangerous modifications or using the robot in a hazardous manner.