

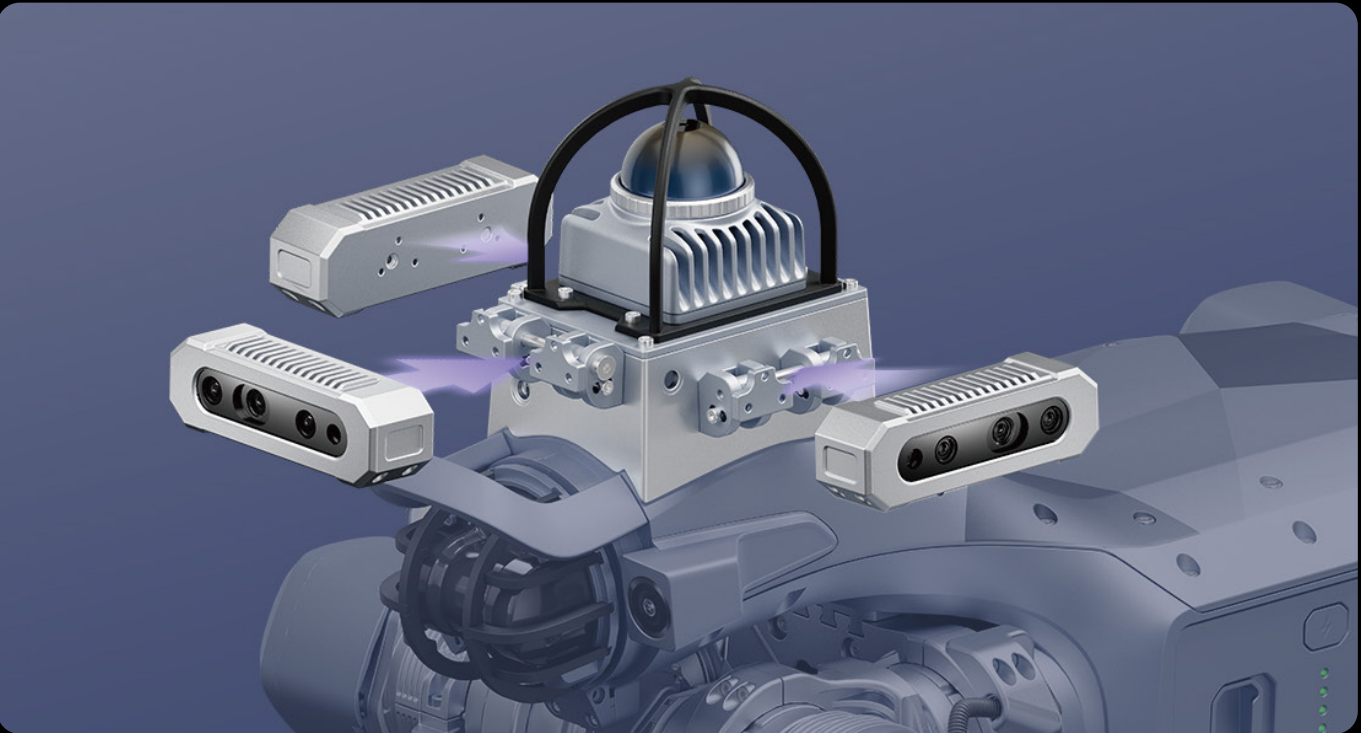
Performance Upgraded, Unlimited Applications

Supports a 150 TOPS high-performance expansion module for real-time on-device processing of massive data, ideal for security, inspection, and advanced applications.



Open Platform, Empowering Innovation

Developer-friendly SDK and APIs support large AI models for embodied AI interaction and autonomous decision-making.



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UNITREE As2-W

Powerful Pioneer,
Compact Yet Extraordinary

Performance Upgraded, Unlimited Applications





Wherever It Goes, Conquers Every Terrain

Combining the high-speed of wheels with the obstacle-overcoming capability of legs, it automatically adapts to stairs, gravel, and steep slopes.

Traverses complex terrain with ease, climbing obstacles up to 80 cm high and slopes up to 45°. [1]



Powerful Performance, Long Endurance

95 N·m industrial-grade joint modules, 7-inch oversized wheels, and a 648 Wh (15,000 mAh) battery.

Maintains climbing performance under heavy load and No-load cruising range exceeds 30 km.



Autonomous Side-follow, Ready to Go with You

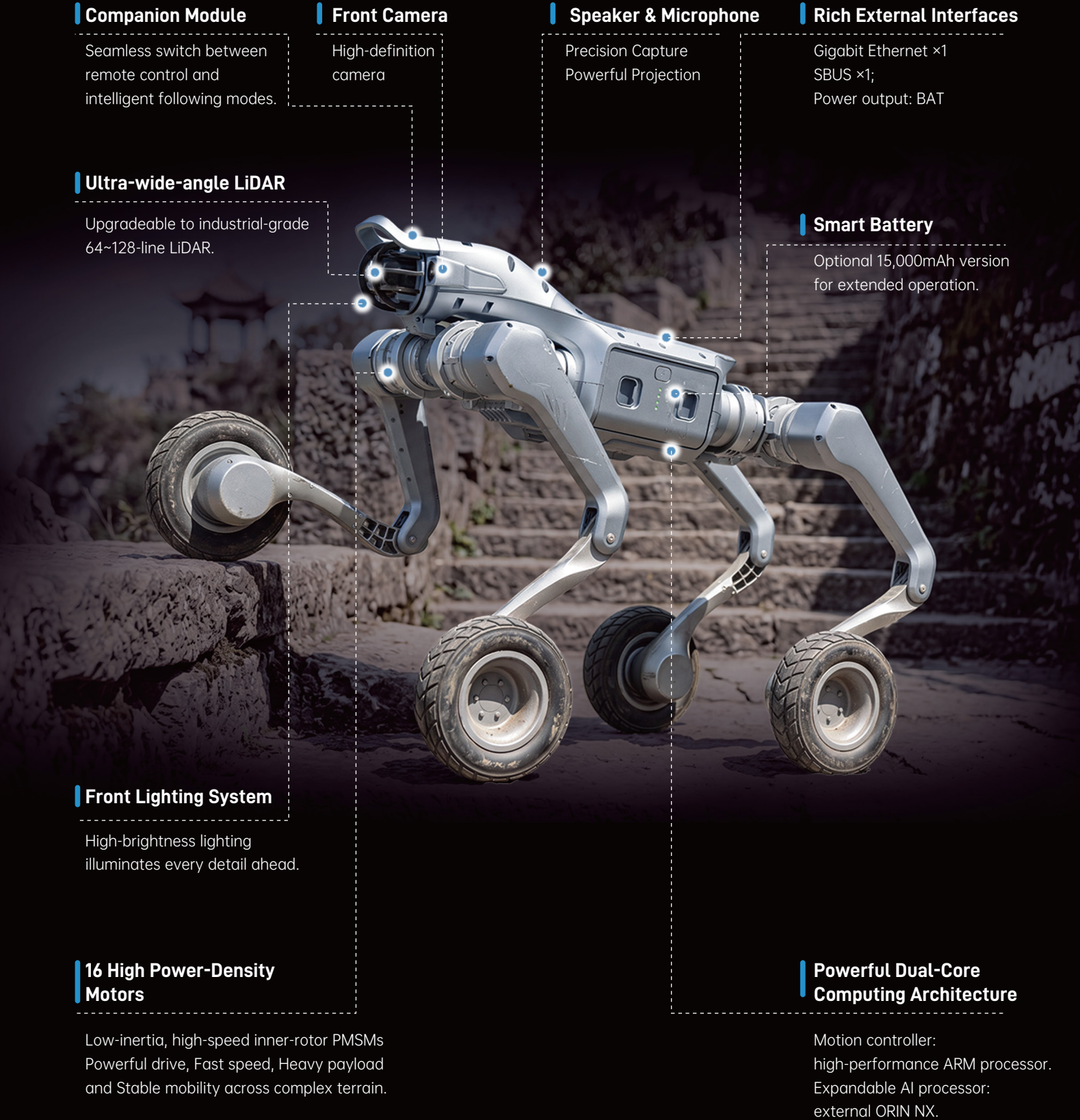
ISS 3.0 Intelligent Side-follow System delivers centimeter-level positioning and stable tracking. Carry backpacks and supplies effortlessly for easier outdoor exploration.



Reliable and Robust, Even in Harsh Conditions

Industrial-grade IP54 dust and water resistance withstands rain, dust, and wet terrain, [1] delivering stable performance in harsh environments and ensuring reliable mission completion around the clock.

Unitree As2-W Parameter



Model		As2-W X		As2-W EDU	
Mechanical Dimensions	Size (Standing)	721mm x 493mm x 521mm			
	Size (Lying Prone)	768mm x 602mm x 211mm			
	Tire Size	7 Inches (Diameter: 178mm; Radius: 50mm)			
	Material	Aluminum Alloy + High-Strength Engineering Plastic			
	Weight (with Battery)	Approx. 25 kg			
	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	Approx. 95 N.m			
	Range of Motion	Body: -45° ~ 45°	Thigh: -115° ~ 200°	Shank: -159° ~ -47 °	
Electrical Characteristics	Supply Voltage	36V~50.4V			
	Joint Encoder	Dual Encoders			
	Cooling System	Local Air Cooling			
	Power Supply	Lithium Battery			
	Wi-Fi 6, Bluetooth 5.2	YES			
	Speaker & Microphone	YES			
	Front Light	YES			
	ISS 3.0 Intelligent Side-follow System	YES			
	GPS、4G ^[4]	Yes (disabled by default; enabled with user authorization)			
	HD Camera	YES			
	Ultra-Wide-Angle LiDAR	Industrial-grade 64~128-line LiDAR			
	Computing Power	8-Core high-performance CPU			
External Interfaces	Gigabit Ethernet x 1	SBUS x 1	Power Output: BAT		
Performance Metrics	Operating Temperature	-20℃ ~ 55℃			
	Battery Life(Unloaded) ^[1]	~3 hours continuous walking, approx. 30km			
	Battery Life(Loaded) ^[1]	With 16kg loaded, >2 hours continuous walking, approx. 25km			
	Max Standing Load	Approx. 150kg			
	Continuous Walking Load	Approx. 16kg			
	Slope Walking Capability	Approx. 45 °			
	Stair Climbing Capability	30cm			
	Max Climb Height	Approx. 0.4m ~ 0.8m			
	Speed	0~3.7m/s (Max Approx. 6m/s)			
	Protection Rating	IP54			
Accessories	Remote Controller	YES			
	Battery Capacity	Long Range (15000mAh) x1			
	Charger	Fast Charging (50.4V 7.4A)			
	Charging Dock	/	YES		
	High Computing Power Expansion Dock	/	Multiple brands and models available Orin NX, etc.		
Other	Secondary Development ^[2]	Supported			
	UniStore Platform	Supported			
	Smart OTA Upgrade	Continuous Upgrades			
	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]Only supported for mainland China version.
[5]The above parameters may vary in different application scenarios and different configurations, please contact sales before purchasing.
[6]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.
[7]The product appearance is subject to change. Please refer to the final product.
[8]Some example features shown on this page are under development and testing, and will be made available to users gradually.
[9]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.