

Model		As2 AIR	As2 PRO	As2 X	As2 EDU Custom Industry Solutions
Price (Tax and freight excluded)		Contact Sales	Contact Sales	Contact Sales	Contact Sales
Mechanical Dimensions	Size (Standing)	720mm x 378mm x 457mm	720mm x 378mm x 457mm	720mm x 378mm x 457mm	720mm x 378mm x 457mm
	Size (Lying Prone)	776mm x 378mm x 233mm	776mm x 378mm x 233mm	776mm x 378mm x 233mm	776mm x 378mm x 233mm
	Weight (with Battery)	Approx. 20 kg	Approx. 20 kg	Approx. 20 kg	Approx. 20 kg
	Material	Aluminum Alloy + High-Strength Engineering Plastic	Aluminum Alloy + High-Strength Engineering Plastic	Aluminum Alloy + High-Strength Engineering Plastic	Aluminum Alloy + High-Strength Engineering Plastic
	Degrees of Freedom (Joint Motors)	12	12	12	12
	Joint Bearings	Industrial-grade crossed roller bearings (high precision, high load capacity)	Industrial-grade crossed roller bearings (high precision, high load capacity)	Industrial-grade crossed roller bearings (high precision, high load capacity)	Industrial-grade crossed roller bearings (high precision, high load capacity)
	Joint Motors	Low-inertia, high-speed inner rotor PMSM (enhanced response & heat dissipation)	Low-inertia, high-speed inner rotor PMSM (enhanced response & heat dissipation)	Low-inertia, high-speed inner rotor PMSM (enhanced response & heat dissipation)	Low-inertia, high-speed inner rotor PMSM (enhanced response & heat dissipation)
	Max Joint Torque	Approx. 65 N.m	Approx. 75 N.m	Approx. 95 N.m	Approx. 95 N.m
	Range of Motion	Body: -45° – 45° Thigh: -115° – 200° Shank: -159° – -47 °	Body: -45° – 45° Thigh: -115° – 200° Shank: -159° – -47 °	Body: -45° – 45° Thigh: -115° – 200° Shank: -159° – -47 °	Body: -45° – 45° Thigh: -115° – 200° Shank: -159° – -47 °

Electrical Characteristics	Supply Voltage	36V–50.4V	36V–50.4V	36V–50.4V	36V–50.4V
	Joint Encoder	Dual encoders	Dual encoders	Dual encoders	Dual encoders
	Cooling System	Local Air Cooling	Local Air Cooling	Local Air Cooling	Local Air Cooling
	Power Supply	Lithium battery	Lithium battery	Lithium battery	Lithium battery
	Wi-Fi 6, Bluetooth 5.2	YES	YES	YES	YES
	Speaker	YES	YES	YES	YES
	Microphone	YES	YES	YES	YES
	Front Light	YES	YES	YES	YES
	ISS 3.0 Intelligent Side-follow System	/	YES	YES	YES
	GPS ^[4]	/	Yes (disabled by default; enabled with user authorization)	Yes (disabled by default; enabled with user authorization)	Yes (disabled by default; enabled with user authorization)
	4G ^[4]	/	Yes (disabled by default; enabled with user authorization)	Yes (disabled by default; enabled with user authorization)	Yes (disabled by default; enabled with user authorization)
	HD Camera	Yes	Yes	Yes	Yes
	Ultra-Wide-Angle LiDAR	Unitree L2	Industrial-grade 64–128-line LiDAR	Industrial-grade 64–128-line LiDAR	Industrial-grade 64–128-line LiDAR
	Computing Power	8-Core high-performance CPU	8-Core high-performance CPU	8-Core high-performance CPU	8-Core high-performance CPU
	External Interfaces	Gigabit Ethernet x 1 SBUS x 1 Power Output: BAT	Gigabit Ethernet x 1 SBUS x 1 Power Output: BAT	Gigabit Ethernet x 1 SBUS x 1 Power Output: BAT	Gigabit Ethernet x 1 SBUS x 1 Power Output: BAT

Performance Metrics	Operating Temperature	-20℃ ~ 50℃	-20℃ ~ 50℃	-20℃ ~ 55℃	-20℃ ~ 55℃
	Battery Life(Unloaded) ^[1]	~2 hours continuous walking, approx. 10km	~4 hours continuous walking, approx. 20km	~4 hours continuous walking, approx. 20km	~4 hours continuous walking, approx. 20km
	Battery Life(Loaded) ^[1]	With 10kg loaded, >1.5 hours continuous walking, approx. 7km	With 13kg loaded, >2.5 hours continuous walking, approx. 13km	With 15kg loaded, >2.5 hours continuous walking, approx. 13km	With 15kg loaded, >2.5 hours continuous walking, approx. 13km
	Max Standing Load	Approx. 45kg	Approx. 55kg	Approx. 65kg	Approx. 65kg
	Continuous Walking Load	Approx. 10kg	Approx. 13kg	Approx. 15kg	Approx. 15kg
	Slope Walking Capability	Approx. 30 °	Approx. 40 °	Approx. 40 °	Approx. 40 °
	Stair Climbing Capability	20cm	25cm	25cm	25cm
	Speed	0~3.0m/s	0~3.7m/s	0~3.7m/s (Up to ~5 m/s)	0~3.7m/s (Up to ~5 m/s)
	Protection Rating	/	IP54	IP54	IP54
Accessories	Remote Controller	Optional	YES	YES	YES
	Battery Capacity	Standard (8000mAh) x1	Long Range (15000mAh) x1	Long Range (15000mAh) x1	Long Range (15000mAh) x1
	Charger	Standard (50.4V 4A)	Fast Charging (50.4V 7.4A)	Fast Charging (50.4V 7.4A)	Fast Charging (50.4V 7.4A)
	Charging Dock	/	/	/	YES
	High Computing Power Expansion Dock	/	/	/	Multiple brands and models available such as Orin NX, etc.

Other	Secondary Development ^[2]	Not Supported	Not Supported	Supported	Supported
	UniStore Platform	Supported	Supported	Supported	Supported
	Smart OTA Upgrade	Continuous Upgrades	Continuous Upgrades	Continuous Upgrades	Continuous Upgrades
	Warranty ^[3]	6 Months	12 Months	12 Months	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.

[10] Please visit Unitree Robotics Website for more related terms and policies, and comply with local laws and regulations.