

ROBOTIX MARKET

PRODUCT BROCHURE
2026 edition



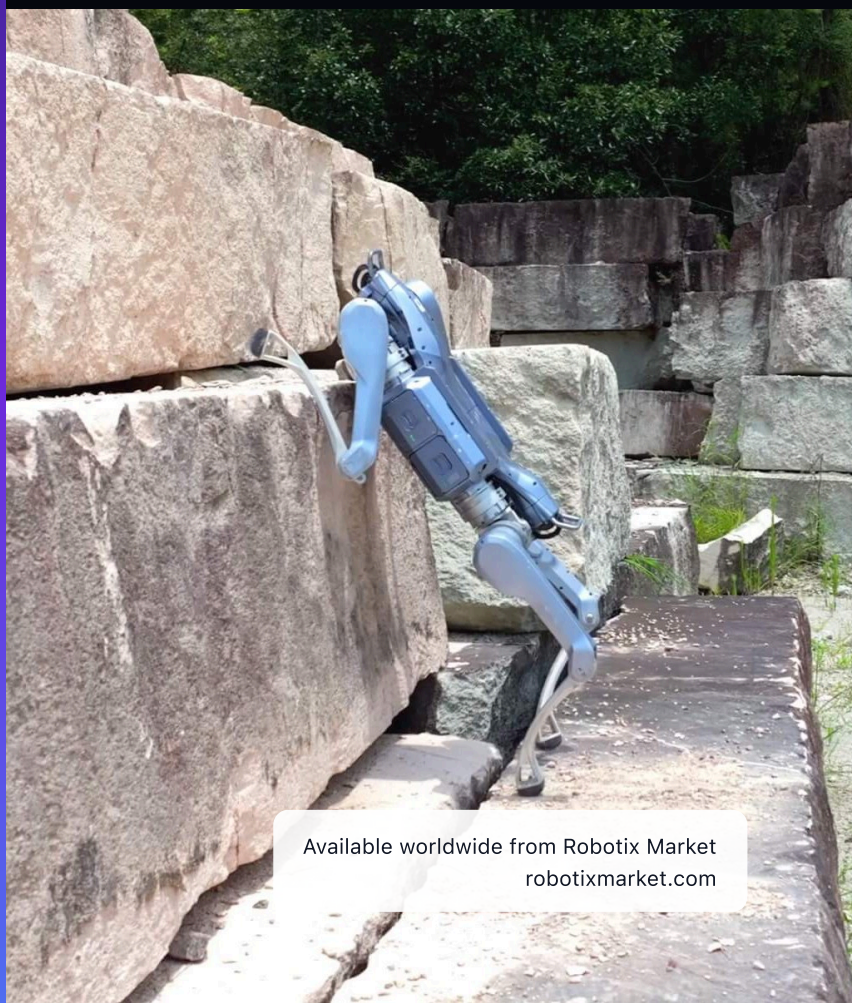
UNITREE · QUADRUPED ROBOTS ·
ROBOTIX MARKET

Unitree

A2

**Unitree's Stellar Explorer
industrial quadruped, in its A2
Standard and A2 Pro editions**

About 42 kg, a 25 kg walking load, two
hot-swappable batteries for over 5 hours
and 20 km, IP56 from -20 °C to 55 °C.



Available worldwide from Robotix Market
robotixmarket.com

OVERVIEW

Medium size, industrial capability

The Unitree A2 is a medium-sized industrial quadruped robot that Unitree calls the Stellar Explorer: about 42 kg, 12 joints with about 180 N·m of torque, a 25 kg continuous walking load and a dual hot-swappable battery system for more than 5 hours of walking. This brochure covers the two legged editions, the A2 Standard and the A2 Pro: they share the body, drive, batteries and computers, and differ in perception and expansion modules.

Medium size, about 42 kg

820 × 440 × 570 mm standing. Aluminium alloy and high-strength engineering plastics: 6061-T6 alloy in every connecting structure and 7075-T6 in key parts, so the body takes the impact of a fall.

Heavy payload as standard

About 25 kg of continuous walking load (ideally about 35 kg) and about 100 kg standing, for carrying equipment and supplies.

All terrain, all weather

30 cm steps, 45° slopes and 0.5–1 m climbs; –20 °C to 55 °C. IP56 on both editions, with core components rated IP67 on the A2 Pro.

12 joints, about 180 N·m

Low-inertia, high-speed inner-rotor motors with dual encoders on industrial-grade crossed roller bearings: 0–3.7 m/s in everyday operation and about 5 m/s at the limit.

Two hot-swappable batteries

Two 9000 mAh, 453.6 Wh smart batteries in parallel: swap one while the robot keeps running. Over 5 hours and about 20 km unloaded, over 3 hours and 12.5 km with 25 kg.

Open for development

An 8-core platform CPU plus an Intel Core i7 for your own code, RS485, CAN, gigabit Ethernet, USB-C and 12 V / 24 V / battery outputs; secondary development on both editions.



~42 kg

WITH BATTERIES

25 kg

WALKING LOAD

100 kg

STANDING LOAD

20 km

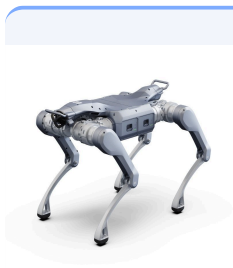
RANGE, UNLOADED

3.7 m/s

OPERATING SPEED

Which A2?

TWO EDITIONS OF THE SAME LEGGED PLATFORM



A2 Standard

One LiDAR, the full A2 platform

- Head-mounted Hesai JT128 LiDAR, HD camera and front light
- 8-core platform CPU + Intel Core i7, secondary development
- IP56; follow module, GNSS and 4G available as options
- 12-month manufacturer warranty



A2 Pro

Unitree's industry configuration

- Head and tail LiDARs for front-and-rear perception
- Expansion dock with NVIDIA Jetson Orin NX (100 TOPS), GNSS, 4G and the follow module
- IP56–IP67, core components IP67
- 12-month manufacturer warranty

Options and accessories

UNITREE'S A2 ADD-ONS, QUOTED ON REQUEST

Spare smart battery

9000 mAh, 453.6 Wh, IP67: a third pack swaps in while the robot keeps working.

BA2 charging dock

Unitree's dock for unattended work: automatic return on low battery, 40 mm docking tolerance, IP56.

Contact charging pad

Charges the A2 lying on the pad, prone or supine: 58.8 V, 7 A, about 1 h 50 min.

Companion remote

UWB follow mode at a set distance and heading; part of the A2 Pro's follow module, optional on the Standard.

A2 Standard and A2 Pro compared

A2 Standard

One head LiDAR; follow module, GNSS and 4G as options

A2 Pro

Unitree's industry configuration: two LiDARs and the expansion modules

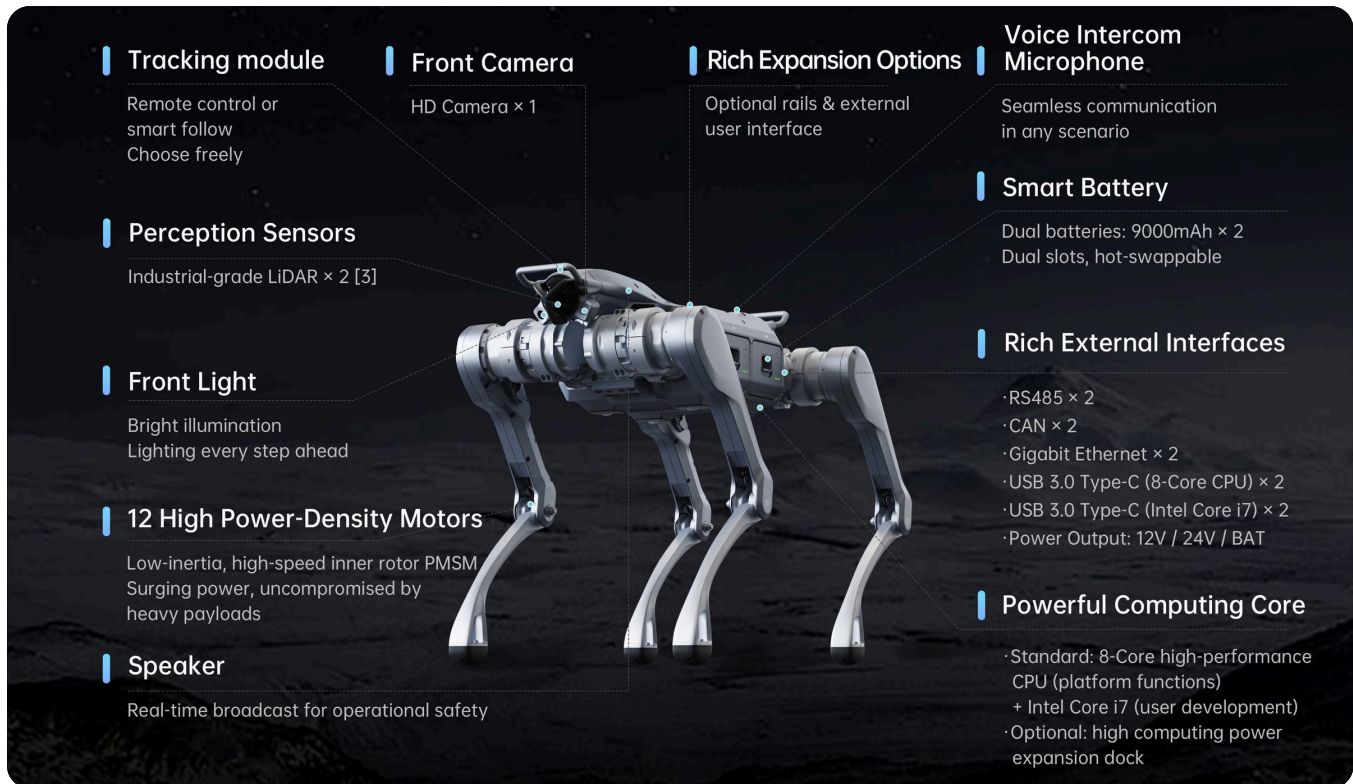
BODY		
Size, standing	820 × 440 × 570 mm	
Size, lying prone	720 × 550 × 220 mm	
Weight	About 42 kg with batteries, about 35 kg without	
Material	Aluminium alloy and high-strength engineering plastic	
Degrees of freedom	12 joint motors	
JOINTS AND MOBILITY		
Joint motors	Low-inertia, high-speed inner-rotor PMSM, dual encoders	
Joint bearings	Industrial-grade crossed roller bearings	
Maximum joint torque	About 180 N·m	
Range of motion	Body −58° to 58° · thigh −134° to 180° / −89° to 225° · shank −158° to −30°	
Speed*	0–3.7 m/s, up to about 5 m/s	
Slope · step · climb	About 45° · 30 cm step · about 0.5–1 m	
LOAD AND ENDURANCE		
Continuous walking load	About 25 kg (ideally about 35 kg)	
Maximum standing load	About 100 kg	
Endurance	Over 5 h / about 20 km unloaded · over 3 h / about 12.5 km with 25 kg	
Batteries	Two hot-swappable smart batteries, 9000 mAh / 453.6 Wh each (907.2 Wh together), 50.4 V	
PERCEPTION		
LiDAR	1 × Hesai JT128, head	2 × Hesai JT128, head and tail
LiDAR performance	128 channels, 360° × 189° field of view, 40 m at 10 % reflectivity	
Camera · light	HD camera, 2568 × 1448 px, 153° diagonal · front light	
Audio	5 W speaker, microphone array	
COMPUTE, CONNECTIVITY AND EXPANSION		
Onboard computers	8-core CPU (platform) + Intel Core i7 (user development)	
High-computing expansion dock	—	Expansion dock with NVIDIA Jetson Orin NX, 100 TOPS†
Wireless vector follow module	Optional	Yes, expansion module†
GNSS (GPS) · 4G	Both optional	Yes, expansion modules†
Wi-Fi · Bluetooth	Wi-Fi 6 · Bluetooth 5.2	
External interfaces	RS485 × 2, CAN × 2, gigabit Ethernet × 2, USB Type-C × 4, power out 12 V / 24 V / battery	
PROTECTION AND SUPPORT		
Ingress protection	IP56	IP56–IP67 (core components IP67)
Operating temperature	−20 °C to 55 °C	
Software	Smart OTA upgrades · secondary development supported	
Warranty	12 months	

Unitree's published A2 parameters. A value shown once applies to both editions; differences are shown per column. * About 5 m/s is reached in special configurations; in practice the speed is limited for safety. † The A2 Pro's expansion modules (computing dock, GNSS, 4G, follow module) are confirmed with your quotation. Figures may vary with scenario and configuration.

Sources: unitree.com/A2 (parameter table), the Unitree A2 User Manual V1.7, the A2 battery-and-charger, remote-control and companion-remote manuals, and Unitree's A2 developer guide, October 2026. All figures are the manufacturer's.

What is where on the A2

Unitree's callout graphic shows the A2 Pro configuration, with two LiDARs and the tracking (follow) module. The A2 Standard is the same body with the head LiDAR only; the tracking module is optional on it.



Expansion ports on both sides of the body: RS485 and CAN aviation plugs, regulated 12 V (6 A) and 24 V outputs, a battery-voltage output, two gigabit Ethernet ports and four USB Type-C ports split between the platform CPU and the Intel Core i7, plus a guide rail on the back for payloads and the expansion dock.

Shared by both editions

THE SAME PLATFORM UNDER THE A2 STANDARD AND THE A2 PRO

Body

820 × 440 × 570 mm, about 42 kg

Joints

12 PMSM motors, dual encoders, ~180 N·m

Load

25 kg walking · 100 kg standing

Endurance

5 h+ / 20 km · 3 h+ / 12.5 km at 25 kg

Terrain

30 cm steps · 45° · 0.5–1 m climbs

Head sensors

Hesai JT128 LiDAR, HD camera, front light

Computers

8-core platform CPU + Intel Core i7

Environment

–20 °C to 55 °C · IP56 or better

In the box

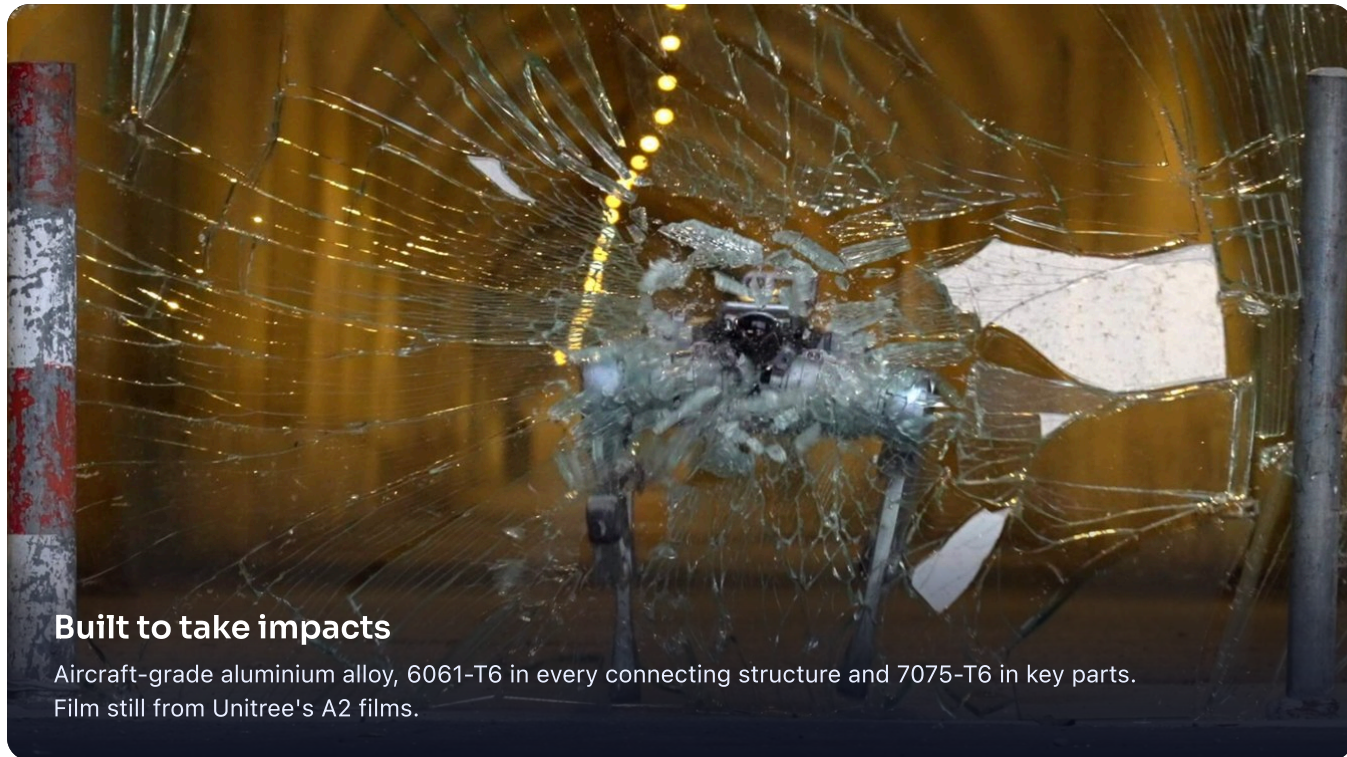
UNITREE'S A2 UNBOXING GUIDE

As shown in Unitree's A2 unboxing tutorial. The A2 Pro adds its expansion modules; we confirm the full packing list of each edition with your quotation.

- Two smart batteries
- Remote controller with emergency stop
- Battery charger
- Allen wrench
- Four replacement foot pads
- Data cable
- User manual and warranty card
- Hard transport case

HIGHLIGHTS

Lighter, faster, tougher



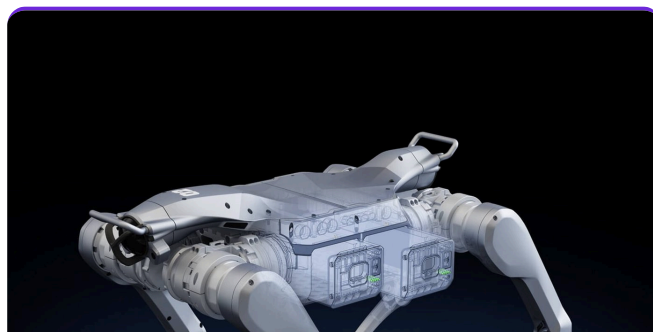
Built to take impacts

Aircraft-grade aluminium alloy, 6061-T6 in every connecting structure and 7075-T6 in key parts.
Film still from Unitree's A2 films.



Two LiDARs on the A2 Pro

Head and tail Hesai JT128 LiDARs (128 channels, 360° x 189°) give the A2 Pro front-and-rear perception with no blind spots. The A2 Standard carries the head LiDAR, the HD camera and the front light.



Hot-swappable dual batteries

Two 9000 mAh packs work in parallel: change one without stopping the mission, for more than 5 hours and about 20 km of unloaded walking.

25 kg

WALKING LOAD · 100 KG STANDING

Heavy payload as standard

About 25 kg while walking, ideally up to about 35 kg, and about 100 kg standing: logistics, equipment carrying and mounted payloads.

-20 to 55 °C

OPERATING TEMPERATURE

All-weather protection

IP56 on both editions, so dust and water jets stay out; on the A2 Pro the core components are rated IP67. Keep the battery contacts dry when inserting a pack.

From logistics to rescue

Logistics and carrying

About 25 kg on the move and about 100 kg standing: tools, samples and supplies carried over steps, slopes and rubble a wheeled cart cannot cross.

Industrial inspection

LiDAR, an HD camera and a front light, with RS485, CAN, Ethernet and USB to connect your own inspection payloads and software.

Emergency and rescue

Unitree names emergency rescue among the A2's scenarios: 30 cm steps, 45° slopes, 0.5–1 m obstacles and –20 °C to 55 °C operation.

Long outdoor routes

Over 5 hours and about 20 km unloaded on the dual batteries; the A2 Pro adds GNSS and 4G for wide-area work.

Follow and carry

In companion mode the A2 follows the person wearing the companion remote at a set distance and heading — part of the A2 Pro, optional on the A2 Standard.

Research and development

SDK and secondary development on both editions, with LiDAR, SLAM and navigation service interfaces; the A2 Pro's dock adds 100 TOPS of NVIDIA Jetson Orin NX.



About 100 kg standing load



Follow mode: A2 Pro, optional on the A2 Standard



Rugged terrain, quarry test

Unitree's own advice: the A2 has a complex structure and powerful dynamics, and stands up by itself after start-up — keep a safe distance and operate it within sight, at least 2 m from obstacles, crowds and water. Avoid steps over 30 cm, slopes over 45°, ice and soft ground, and use it as the civilian robot it is, without dangerous modifications.

Power and control

IN EVERY A2 BOX, BY UNITREE'S MANUALS

Smart battery

BT3-02, Unitree BMS

- 9000 mAh · 453.6 Wh · 50.4 V rated
- Hot-swappable in two slots; IP67, 3.3 kg
- Balanced-charge, over-charge, over-discharge and short-circuit protection
- Switches on only when inserted in the robot

Battery charger

Mains, 100–240 V

- Output 58.8 V, 7 A, 411.6 W
- About 1 h 50 min per battery
- IP67-rated charger
- The first full charge takes the battery out of shipping mode

R3 remote control

Joystick remote with emergency stop

- 780 mAh battery, about 5 h
- Data-transmission module and Bluetooth
- More than 100 m in an open environment
- Hard emergency-stop button; USB-C charging

Getting started

UNITREE'S A2 QUICK START, WITH THE UNITREE EXPLORE APP FOR IOS AND ANDROID

- 1 Activate the batteries**
They ship in transport mode: charge each fully once before first use.
- 2 Insert both batteries**
Slide them in from the side until they click; the latch must engage.
- 3 Place the robot**
Flat ground, belly pad down, legs fully retracted.
- 4 Power on**
Short press, then hold for 3 s; the A2 stands up after about 2 minutes.
- 5 Bind the remote**
In the Unitree Explore app, then control the A2 with the joysticks.
- 6 Calibrate and lie down**
Calibrate the joints in the app; L2 + A twice lays it down before power-off.

NEXT STEP

Order your A2

Tell us where the robot will work — logistics, inspection, rescue, long outdoor routes or development — and whether you need two LiDARs, GNSS, 4G, follow mode or the computing dock. We will recommend the A2 Standard or the A2 Pro, confirm the configuration and come back with a delivery estimate to your address and a formal quotation.

Request a quotation

Web

A2 Standard

robotixmarket.com/products/unitree-robotics-a2-standard-quadruped-robot

A2 Pro

robotixmarket.com/products/unitree-robotics-a2-pro-quadruped-robot-dog

Email · info@robotixmarket.com

Current prices for your market are on the product pages; configuration and delivery are confirmed with your quotation. Robotix Market ships worldwide.



A2 Standard



A2 Pro

Sourced new

Supplied through established distribution channels.

Manufacturer warranty

Every robot ships with Unitree's manufacturer warranty and official documentation: 12 months on the A2 Standard and the A2 Pro, per Unitree's published terms.

Support

Technical support is coordinated with the manufacturer's service network.

See it in action · Unitree A2 Stellar Explorer, launch film: youtube.com/watch?v=ve9USu7zpLU



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