UNITREE Go2

Intelligence in Motion

Lead the way

Standard ultra-wide 4D LiDAR
Confident navigation across any terrain

Go2 is equipped with advanced 4D lidar L1, delivering 360° x 90° hemispherical scanning for exceptional coverage and minimal blind spots. With a detection range starting at just 0.05m, it accurately detects obstacles and adapts to varied terrain.

Scanning Field of View

360°×90°

Ultra-wide Scanning

Min Detection Distance

0.05m

Blind Spot

Max Detection Range

20m

at 90% Reflectivity

Operating Rate

21600 points/s

Effective Frequency

Sampling Rate

43200 points/s

Frequency of Sample

Anti Glare Protection

100Klux

Stable Detection

* Laser Safety: Class 1 (IEC 60825-1:2014) Certified. * Radar accuracy decreases at closer range detection

Your new intelligent companion

Tracking Module
Remote-controlled or autonomous tracking

Intercom Microphone
Effective two-way communication

Hardware Systems
· 3D LIDAR · 4G ESIM Card · WiFi6 with Dual-band · Bluetooth 5.2 for stable connection and remote control

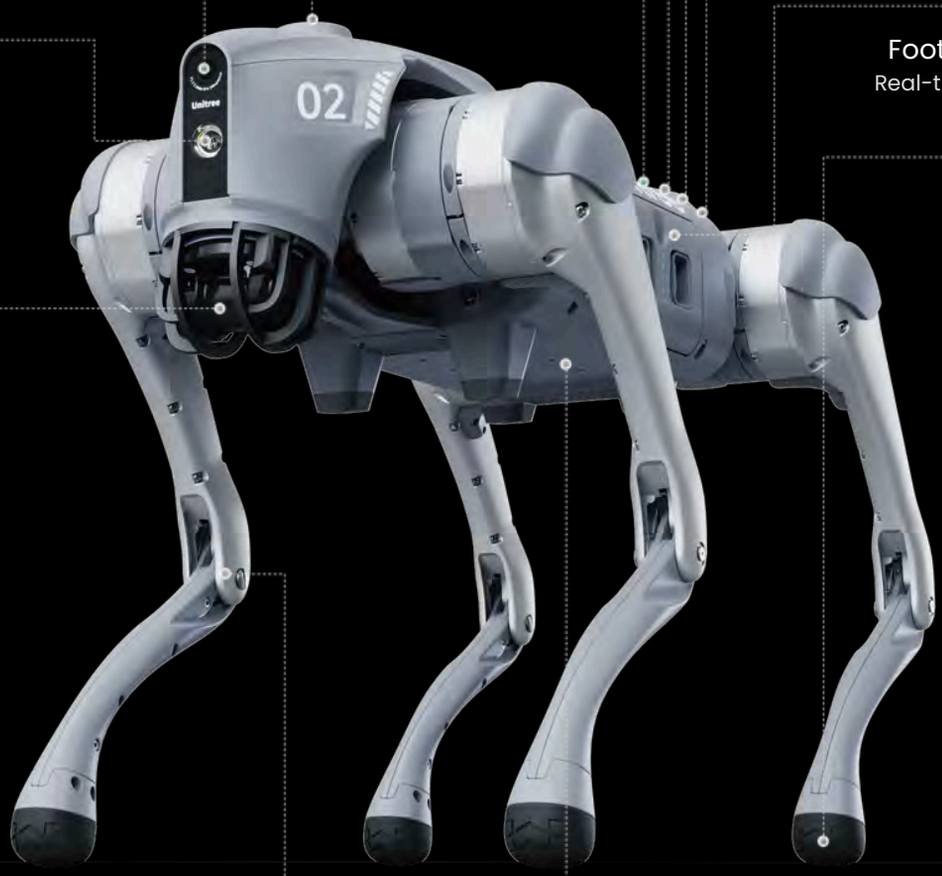
Front Camera
1280×720 resolution with 120° ultra-wide lens for rich clarity

Self-retracting Strap
Easy to carry and load

Powerful Core
· Motion controller · High-performance ARM processor · AI algorithm processor · External ORIN NX/NANO

Smart Battery
· Standard 8,000mAh battery · Optional long-endurance 15,000mAh battery · Protection against overheating, overcharging, and short-circuit

Front Lamp
Powerful forward illumination



Foot Force Sensor
Real-time foot pressure perception

4D LiDAR L1
360° x 90° omnidirectional ultra-wide scanning

12 Knee Joint Motors
Strong, agile and powerful

Speaker for Music Play
Listen to music and audio

Engineered for more

Intelligent Side-follow System 2.0

With wireless vector positioning, Go2 follows alongside the user with precise and stable movement. Obstacle detection enables smooth navigation through complex terrain, with remote control capability extending beyond 30 metres in open areas.

High-Performance Motion

Go2 delivers powerful joint performance with up to 45N·m peak torque.* An internal wiring design and integrated heat pipe cooling system help maintain smooth, stable operation under demanding conditions.

* The maximum torque in the table refers to the largest joint motor; actual maximum torque varies across the 12 joint motors.

Extended Power and Endurance

A high-capacity 8,000mAh battery comes as standard, with an optional ultra-long life 15,000 mAh pack for extended use. Operating at 28.8 V, the system delivers efficient power output to support demanding applications and continuous mobility.

Various actions and poses

Go2 performs a wide range of dynamic actions including jumping, stretching, shaking hands, cheering, pouncing, and sitting, making it ideal for both practical and interactive scenarios.

Control at your fingertips

Use the app to control, monitor, and customise Go2 in real time.

Smart Obstacle Avoidance

Go2 uses 4D lidar to detect and map its surroundings in real time, enabling smooth and agile movement. It navigates complex spaces with confidence and precision.

Design Routines Visually

Build custom routines using a simple drag-and-drop interface. Intuitive and accessible, it's built to help anyone get started quickly.

Live HD Monitoring

The app provides a real-time video feed with HD clarity. Built-in 4G and eSIM ensure stable connectivity* for remote viewing and control.

*Performance may vary depending on network conditions.

Automatic OTA Updates

With user approval, Go2 installs updates automatically via a secure cloud connection, delivering new features and ongoing improvements.

Specifications

	Type	AIR	PRO	EDU
Mechanical / Electrical	Standing Height	70×31×40cm		
	Weight (With Battery)	About 15kg		
	Material	Aluminium alloy + High strength engineering plastic		
	Voltage	28V~33.6V		
	Peaking Capacity	About 3000W		
Performance	Payload	≈7kg（MAX ~ 10kg）	≈8kg（MAX ~ 10kg）	≈8kg（MAX ~ 12kg）
	Speed	0~2.5m/s	0~3.5m/s	0~3.7m/s（MAX~5m/s）
	Max Climb Drop Height	About 15cm	About 16cm	
	Max Climb Angle	30°	40°	
	Basic Computing Power	○	8-core High-performance CPU	
Joint	Peak Joint Torque [1]	○	About 45N.m	
	Range of Motion	Body：-48~48°	Thigh：-200°~90°	Shank：-156°~-48°
	Intra-joint Circuit (knee)	●	●	●
	Joint Heat Pipe Cooler	●	●	●
Force Sensor	Super-wide-angle 3D LIDAR	●	●	●
	Wireless VectorPositioning Tracking Module	○	●	●
	HD Wide-angle Camera	●	●	●
	Foot-end Force Sensor	○	○	●
Features	Basic Action	●	●	●
	Auto-scaling Strap	○	●	○
	OTA Upgrades	●	●	●
	RTT2.0 Image Transmission	●	●	●
	Graphical Programme	●	●	●
	Front Lamp	●	●	●
	WiFi6 with Dual-band	●	●	●
	Bluetooth 5.2/4.2/2.1	●	●	●
	4G	○	●	●
	Voice Function [2]	○	●	●
	ISS 2.0	○	●	●
	Intelligent Detection	●	●	●
	Charging Pile Compatibility	○	○	●
	Secondary Development [3]	○	○	●
Accessories	Handheld Controller	Optional		Standard
	Docking Station	○		Optional Nvidia Jetson Orin
	Smart Battery	Standard（8000mAh）		Long-endurance（15000mAh）
	Endurance	About 1-2h Standard		About 2-4h
	Charger	(33.6V 3.5A)		Fast charge（33.6V 9A）

*Specifications may vary depending on the scenario and configuration. Please refer to actual usage conditions.
*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.
[1] The maximum torque in the table refers to the maximum torque of the largest joint motor; the actual maximum torque varies for the 12 joint motors.
[2] Voice functions include offline voice interaction, commands, intercom and music play.
[3] For additional details, please refer to the secondary development manual.

Extensions

XT16 LIDAR

Model	XT16
Size (Without Bracket)	Φ100.0 / 103.0 mm*76mm
Voltage Range	9-36V DC
Laser Wavelength	905nm
Fov	Horizontal 360°, Vertical 30° (-15°~+15°)

MID360 LIDAR

Model	MID-360
Size (without bracket)	65mm*65mm*60mm
Voltage range	9-27V DC
Laser wavelength	905nm
FOV	Horizontal 360°，Vertical-7°~52°

Depth Camera

Model	D435i
Size	124mm*29mm*26mm
Min Depth Distance	0.105m
Depth Image Resolution	1280*720 @ 30fps； 848*480 @ 90 fps
Depth Field Of View	86° * 57° （±3°）

Docking Station

Model	Orin Nano 8GB、Orin NX 16GB
Voltage range	16-60V DC
Computing power	Nano supports up to 40 Tops NX supports up to 100 Tops
Expansion interface	USB3.0-Type A X1 USB3.0-Type C X2 Gigabit Ethernet port (standard RJ45) X2 100Gb Ethernet (GH1.25-4PIN) X1 M8 Air Plug Interface X1

D1 Servo Mechanical Arm

Model	D1
Weight	About 2.37kg
Degree Of Freedom	6
Playload	About 500g
Max Armspan	670mm (with jaws)
Repeated Position Accuracy	About 0.2cm
Power Requirement	24V 2.5A (MAX 5A)
Interface	DC5.5-2.1
Motor Type	Servo
Power	60W
Control Interface	Control communication interface RJ45 (ETH)

Remote Controller (screen+cameras)

Number of cameras	2
Camera Resolution	1920x1080
Wireless frequency	2.4GHz
Searchlight Power	30W
Horn power	30W
Alarm light	Red and blue sharp-flash
Remote control with screen	MK15

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