GATEIN TECHNOLOGY
جيت ان تكنولوجي

PRODUCT PRESENTATION · UNITREE ROBOTICS

Unitree Go2

New Creature of Embodied AI

Infinite Revolution



Standard Ultra-wide 4D LIDAR
Upgrades Recognition System by 200%



Go2 features with Unitree's self-developed 4D LIDAR L1 with 360° x90° hemispherical ultra-wide recognition, super small blind spot and a minimum detection distance as low as 0.05m, which makes Go2 realize all-terrain recognizing.

360°×90°
ULTRA-WIDE SCANNING

0.05m
BLIND SPOT

20m
@90% REFLECTIVITY

43200 points/s
FREQUENCY OF SAMPLE

21600 points/s
EFFECTIVE FREQUENCY

100Klux
ANTI-HIGHLIGHT PROTECTION

Your New Intelligent Friend

4D LiDAR L1

360°*90° omnidirectional ultra-wide-angle scanning allows automatic avoidance with small blind spot and stable operation

Front Camera

Image transmission resolution 1280*720 · FOV 120° · Ultra wide angle lens deliver rich clarity

Front Lamp

Brightly lights the way ahead

Tracking Module

Remote-controlled or automatic tracking



Powerful Core

Motion controller: high-performance ARM processor

Improved AI algorithm processor: external ORIN NX/NANO

Hardware Upgrade

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

Intercom Microphone

Effective communication with no scenario restrictions

Body & Power

12 Knee Joint Motors
Strong and powerful

Foot Force Sensor
Receiving foot perception in real time

Smart Battery
Standard 8000mAh battery · Long-endurance 15000mAh battery · Protection from over-temp, overcharge and short-circuit

Self-retracting Strap
Easy to carry and load things

Speaker for Music Play
Listen to music as your pleasure

Beautiful and Simple
Brand new visual experience



New Intelligence Unitree Go2



Intelligent Side-follow System 2.0

New wireless vector positioning and control technology upgrades positioning accuracy by 50%, with remote control distance over 30m [1] and an optimised obstacle avoidance strategy for complex terrain.



Motor Performance Enhanced by 30%

Go2 boasts a peak joint torque of 45N.m [2], a new internal trace connecting technique, and heat pipe coolers to decrease temperature effectively.



Battery Capacity & Endurance Upgraded by 150%

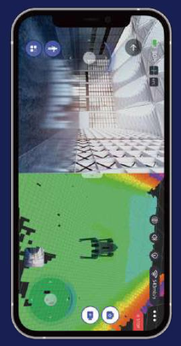
Battery capacity increased to 8,000mAh, an optional 15,000mAh ultra-long life battery, and voltage increased to 28.8V to improve motor efficiency, power and stability.



Various Actions and Poses

Go2 boasts a variety of poses such as jumping, stretching, shaking hands, cheering, pouncing, and sitting down.

Have Great Fun with the APP



PRECISE AND AGILE

Intelligent Avoidance

Equipped with 4D LiDAR L1, the robodog detects, captures and draws the 3D real world for user.



SIMPLE YET SMARTER

Graphical Programming

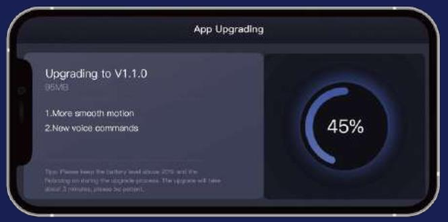
Complete program design by simple drag, drop and connection. Easy for programming beginners to start and innovate.



REAL-TIME AND STABLE

HD Picture Quality [1]

HD image transmission and real-time remote monitor. Built-in 4G and eSIM enable more stable connection and remote control.



KEEP IMPROVING

OTA Upgrades

With user authorisation, the robot connects to a cloud-based OTA service to upgrade its own programs.

Body, Performance & Joint

TYPE		AIR	PRO	EDU
Mechanical & Electron	Stand 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°

Sensors & Feature List

● Standard ○ Not included

SENSORS & FEATURES	AIR	PRO	EDU
Super-wide-angle 3D LIDAR	●	●	●
Wireless Vector Positioning Tracking Module	○	●	●
HD Wide-angle Camera	●	●	●
Foot-end Force Sensor	○	○	●
Basic Action	●	●	●
Auto-scaling Strap	○	●	○
OTA Upgrades	●	●	●
RTT2.0 Image Transmission	●	●	●
Graphical Programme	●	●	●

FEATURES	AIR	PRO	EDU
Front Lamp	●	●	●
WiFi6 with Dual-band	●	●	●
Bluetooth 5.2/4.2/2.1	●	●	●
4G	○	●	●
Voice Function [2]	○	●	●
ISS 2.0	○	●	●
Intelligent Detection and Avoidance	●	●	●
Charging Pile Compatibility	○	○	●
Secondary Development [3]	○	○	●

Battery & Accessories

TYPE	AIR	PRO	EDU
Handheld Controller	Optional		Standard
Docking Station	○		Optional Nvidia Jetson Orin
Smart Battery	Standard (8000mAh)		Long endurance (15000mAh)
Endurance	About 1-2h		About 2-4h
Charger	Standard (33.6V 3.5A)		Fast charge (33.6V 9A)

The above parameters may vary in different scenarios and configurations, please subject to actual situations.

Go2 Extensions



Docking Station

Model	Orin Nano 8GB, Orin NX 16GB
Voltage range	16-60V DC
Computing power	Nano up to 40 Tops · NX up to 100 Tops
Expansion interface	USB3.0-Type A ×1 · USB3.0-Type C ×2 · Gigabit Ethernet (RJ45) ×2 · 100Gb Ethernet (GH1.25-4PIN) ×1 · M8 Air Plug ×1



D1 Servo Mechanical Arm

Model	D1
Weight	About 2.37kg
Degree of freedom	6
Payload	About 500g
Max armspan	670mm (with jaws)
Repeated positioning accuracy	About 0.2cm
Power requirement	24V 2.5A (MAX 5A)
Interface	DC5.5-2.1
Motor type	Servo
Power	60W



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°

Go2 Extensions



Depth Camera

Model	D435i
Size	124mm×29mm×26mm
Min depth distance	0.105m
Depth image resolution	1280×720 @ 30fps; 848×480 @ 90fps
Depth field of view	86° × 57° (±3°)



Remote Controller (screen + cameras)

Remote control with screen	MK15
Number of cameras	2
Camera resolution	1920×1080
Wireless frequency	2.4GHz
Searchlight power	30W
Horn power	30W
Alarm light	Red and blue sharp-flash
Control communication interface	RJ45 (ETH)



XT16 LIDAR

Model	XT16
Size (without bracket)	Φ100.0 / 103.0mm × 76mm
Voltage range	9-36V DC
Laser wavelength	905nm
FOV	Horizontal 360°, Vertical 30° (-15°~+15°)

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