

UNITREE ROBOTICS · HUMANOID ROBOT · ROBOTS
USA

Unitree G1 Edu Standard Humanoid Robot with Fake Hands (G1EDU-U1)

A compact humanoid robot for
teaching, research and your own
robot software.

A walking humanoid with depth camera and 3D LiDAR,
built for labs and classrooms. It comes with fixed hands
that do not grip and is open to your own software.



PRODUCT OVERVIEW

A humanoid platform you program yourself

This is a compact humanoid agent platform for education and robotics work. It stands $1,320 \times 450 \times 200$ mm tall and folds down to $690 \times 450 \times 300$ mm for storage and transport. It senses its surroundings with a depth camera and 3D LiDAR. It is open to your own software: developers can program it. A handheld remote control comes with the robot.

Open to your own software

Developers can program the robot themselves. Software updates arrive over the air, so the robot stays current without a service visit.

Flexible movement

The robot offers 23 - 43 degrees of freedom, depending on the configuration. An optional pair of extra waist degrees of freedom is available.

Sees its surroundings

A depth camera and a 3D LiDAR give the robot a view of the space around it. Together they support perception and mapping work.

Computing power on board

An 8-core high-performance CPU runs the robot, and a high-computing module, such as NVIDIA Jetson Orin, runs your own code on board.



23 - 43

DEGREES OF FREEDOM

120 N·m

MAX KNEE TORQUE

9,000 mAh

BATTERY CAPACITY

About 2 h

BATTERY LIFE

What the robot is made of

Depth camera and 3D LiDAR

The sensing pair that lets the robot see depth and map the space around it.

Microphone array

Four microphones pick up sound for voice interaction.

Speaker

A 5 W speaker lets the robot talk back.

Joint motors

Fast inner-rotor motors (PMSM) drive the joints, with better response speed and heat dissipation.



Knee joints

Each knee reaches a maximum torque of 120 N·m.

Waist

One waist degree of freedom as standard, with 2 more available as an option.

Arms

Each arm carries a maximum load of about 3 kg.

Quick-release battery

A smart 9,000 mAh battery that releases quickly from the body.

03

Built to be programmed and put to work



BUILT IN

Wireless built in

WiFi 6 and Bluetooth 5.2 connect the robot to your network and devices.

9,000mAh Quick-release battery

A 9,000 mAh quick-release battery gives a battery life of about 2 h. A 54 V 5 A charger completes the power set.

BUILT IN

Cables kept inside

The cables run inside the joints, with no exposed wiring. Two encoders on each joint report its position.

1,320 × 450 × 200mm Folds for transport

Standing, the robot measures 1,320 × 450 × 200 mm. Folded, it measures 690 × 450 × 300 mm.

STANDING

1,320 × 450 × 200mm

FOLDED

690 × 450 × 300mm

The robot is open to your own software, and updates arrive over the air. Add a more powerful compute module when your project needs it.

Where this robot fits

Teaching and research

Universities and AI labs study motion, perception and human-robot interaction on a platform they program themselves.

Inspection and field trials

Commercial teams try it in inspection, teleoperation and mapping pilots, using the depth camera and 3D LiDAR.

System integration

Integrators combine the robot body with extra compute, sensors and custom software.

Voice interaction demos

Four microphones and a 5 W speaker support demonstrations where the robot hears and answers.

Battery life is about 2 h, so plan sessions around charging. The arms carry a maximum load of about 3 kg each.

Open to developers

Developers can program the robot, and software updates arrive over the air.

TECHNICAL SPECIFICATIONS

Specifications at a glance

DIMENSIONS & WEIGHT

Dimensions (standing)	1,320 × 450 × 200 mm
Weight	About 35 kg+ — with battery
Dimensions (folded)	690 × 450 × 300 mm
Calf and thigh length	0.6 m
Arm span	About 0.45 m

PAYLOAD & PERFORMANCE

Battery life	About 2 h
Arm maximum load	About 3 kg
Total degrees of freedom	23 - 43
Maximum knee joint torque	120 N·m
Single leg degrees of freedom	6
Single arm degrees of freedom	5

BATTERY & CHARGING

Battery capacity	9,000 mAh
Charger	54 V 5 A
Power supply	13 string lithium battery

NAVIGATION & SENSORS

Sensing sensors	Depth Camera+3D LiDAR
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CONNECTIVITY

Wireless connectivity	WiFi 6, Bluetooth 5.2
Secondary development	YES
OTA upgrades	YES

DISPLAY & INTERACTION

Microphone array	4 microphones
Speaker	5 W

COMPATIBILITY

High computing power module	Multiple brands and models available such as Orin, etc.
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OTHER

Basic computing power	8-core high-performance CPU
Joint motor	Low inertia high-speed internal rotor PMSM (permanent magnet synchronous motor)
Manual controller	YES
Joint encoder	Dual encoder
Cooling system	Local air cooling
Joint output bearing	Industrial grade crossed roller bearings (high precision, high load capacity)
Full joint hollow electrical routing	YES

Sources: Figures from the manufacturer's published documentation, as verified in the specification table, revision 2.

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Which edition?

	THIS EDITION G1 Edu Standard	G1 PRO	G1 Ultimate C
DIMENSIONS & WEIGHT			
Dimensions (standing)	1,320 × 450 × 200 mm	1,320 × 450 × 200 mm (52 × 17.7 × 7.9 in)	1,320 × 450 × 200 mm (H x W) and Thickness (Stand)
Weight	About 35 kg+	About 35 kg (77 lb)	35+ kg
Dimensions (folded)	690 × 450 × 300 mm	690 × 450 × 300 mm (27.2 × 17.7 × 11.8 in)	690 × 450 × 300 mm (H x W) and Thickness (Fold)
Arm span	About 0.45 m	Arm span about 0.45 m (17.7 in), with 0.6 m (23.6 in) of calf and thigh length	0.45 m
PAYLOAD & PERFORMANCE			
Battery life	About 2 h	—	About 2 h
Arm maximum load	About 3 kg	—	3 kg
Total degrees of freedom	23 - 43	—	41
Maximum knee joint torque	120 N·m	—	120 N·m
Single leg degrees of freedom	6	—	6
Single arm degrees of freedom	5	—	7
BATTERY & CHARGING			
Battery capacity	9,000 mAh	9,000 mAh quick-release smart battery	9,000 mAh
Charger	54 V 5 A	54 V 5 A	54 V 5 A
NAVIGATION & SENSORS			
Sensing sensors	Depth Camera+3D LiDAR	LIVOX MID360 3D LiDAR and Intel RealSense D435i depth camera	Depth Camera + 3D LiDAR

Figures as published for each edition; a dash means the edition does not state it.

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Ask for a quotation

Tell us the configuration you need, any options such as extra waist degrees of freedom or a more powerful compute module, the quantity and how you plan to use the robot. We will build the quotation around that.

ASSURED

01

Sourced new

Supplied through established distribution channels.

02

Manufacturer warranty

Every unit ships with the full UNITREE ROBOTICS manufacturer warranty and official documentation.

03

Support

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

IN THE BOX

Handheld remote control — A handheld remote control comes with the robot.

GOOD TO KNOW

Options such as dexterous hands, extra waist degrees of freedom and a more powerful compute module change the configuration, so name them in your request.

REQUEST A QUOTATION

Prices and configuration on request.

EMAIL · sales@robotsusa.com

WEB · robotsusa.com/Unitree-G1-Edu-Standard.htm

Robots USA ships worldwide.



SCAN FOR THE PRODUCT
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