ROBOTS SINGAPORE

PRODUCT BROCHURE
2026 edition

UNITREE ROBOTICS · HUMANOID ROBOT · ROBOTS SINGAPORE

# 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 × 450 × 200 mm tall and folds down to 690 × 450 × 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

ANATOMY

# 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.

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# 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.

**9,000** mAh

### 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 × 200** mm

### Folds for transport

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

| STANDING | FOLDED |
|---|---|
| **1,320 × 450 × 200** mm | **690 × 450 × 300** mm |

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 IT FITS

# 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** |

## 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.** |

## 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<br>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.

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

Robots Singapore ships worldwide.

SCAN FOR THE PRODUCT PAGE

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