

UNITREE G1

G1 Basic & G1 Basic EDU

HUMANOID ROBOT PLATFORM

Technically almost identical variants. The key difference is support for secondary development in the EDU version.

1,320 mm

height

approx. 35 kg

incl. battery

23 DoF

standard configuration



Product overview

The Unitree G1 is a compact, foldable humanoid robot with bipedal kinematics, 23 degrees of freedom, permanent-magnet synchronous motors, dual encoders, a depth camera and 3D LiDAR. G1 Basic and G1 Basic EDU use the same technical platform. G1 Basic runs the provided functions. G1 Basic EDU additionally supports secondary development for custom software, ROS and robotics projects.

Common technical data

DESIGN	bipedal, humanoid, foldable	WAIST	1 DoF
DIMENSIONS	1,320 x 450 x 200 mm	KNEE TORQUE	90 Nm
FOLDED	690 x 450 x 300 mm	ARM PAYLOAD	approx. 2 kg
WEIGHT	approx. 35 kg incl. battery	DRIVE	internal-rotor PMSM
DEGREES OF FREEDOM	23 DoF	BATTERY	13S lithium battery
LEGS / ARMS	2 x 6 DoF / 2 x 5 DoF	RUNTIME	approx. 2 hours

Typical applications

DEMONSTRATION

Showcases, trade fairs and motion demonstrations

EDUCATION

Teaching and introduction to humanoid robotics

RESEARCH

Robotics, perception and AI projects with EDU

SOFTWARE DEVELOPMENT

Custom applications based on the EDU version

Variant difference & integration

G1 BASIC

Standard platform for using the provided functions. Suitable for demonstrations, education and applications without custom secondary development.

G1 BASIC EDU

Technically almost identical platform with support for secondary development of custom software and robotics applications.

Relevant differences

DIFFERENCE	G1 BASIC	G1 BASIC EDU
Secondary development	Not intended as an open development platform.	Supported; the central difference from the Basic variant.
Custom software	Use of the provided standard functions.	Development of custom applications through the development access.
ROS / ROS 2	Full development access is not assured.	Intended for research and development integration; verify versions.
SDK / API	Extended SDK/API access is not assured.	Developer access depends on the software package; confirm scope.

TECHNICAL PLATFORM

Mechanics, dimensions, weight, degrees of freedom, drive system, sensors, wireless communication, battery and nominal runtime are identical for both variants according to the available data.

Sensors, communication & operation

DEPTH CAMERA	equipped; verify model	CPU	8-core high-performance CPU
3D LIDAR	equipped; verify model	WIRELESS	Wi-Fi 6
MICROPHONES	4	BLUETOOTH	Bluetooth 5.2
SPEAKER	5 W	UPDATES	OTA software updates

Selection guide

CHOOSE G1 BASIC

When standard functions for demonstrations and education are sufficient and secondary development is not required.

CHOOSE G1 BASIC EDU

When custom software, ROS/ROS 2 projects or development access are required.

NOTICE

Technical data based on manufacturer and provided product information. Subject to change. Confirm SDK, API and ROS scope before ordering.