

G1 HUMANOID ROBOT

TECHNICAL SPECIFICATIONS

	G1	G1 EDU
Model	G1	G1 EDU
Height, Width and Thickness (Stand)	1320x450x200mm	1320x450x200mm
Height, Width and Thickness (Fold)	690x450x300mm	690x450x300mm
Weight (With Battery)	About 35kg	About 35kg+
Total Degrees of Freedom (Joint Freedom)	23	23~43
Single Leg Degrees of Freedom	6	6
Waist Degrees of Freedom	1	1+(Optional 2 additional waist degrees of freedom)
Single Arm Degrees of Freedom	5	5
Single Hand Degrees of Freedom	/	7 (Optional Force control of three-fingered hand) +2(Optional 2 additional wrist degrees of freedom) *Three-fingered dexterous hand Dex3-1 Parameter: The thumb has 3 active degrees of freedom; the index finger has 2 active degrees of freedom; the middle finger has 2 active degrees of freedom. **Dex3-1 can optionally be installed with tactile sensor arrays
Joint output bearing	Industrial grade crossed roller bearings (high precision, high load capacity)	Industrial grade crossed roller bearings (high precision, high load capacity)
Joint motor	Low inertia high-speed internal rotor PMSM(permanent magnet synchronous motor,better response speed and heat dissipation)	Low inertia high-speed internal rotor PMSM(permanent magnet synchronous motor,better response speed and heat dissipation)
Maximum Torque of Knee Joint [1]	90N.m	120N.m
Arm Maximum Load [2]	About 2Kg	About 3Kg
Calf + Thigh Length	0.6M	0.6M
Arm Span	About 0.45M	About 0.45M
Extra Large Joint Movement Space	Waist joint: Z±155° Knee joint: 0~165° Hip joint: P±154°、R-30~+170°、Y±158°	Waist joint: Z±155°、X±45°、Y±30° Knee joint: 0~165° Hip joint: P±154°、R-30~+170°、Y±158° Wrist joint: P±92.5°、Y±92.5°
Full Joint Hollow Electrical Routing	YES	YES
Joint Encoder	Dual encoder	Dual encoder
Cooling System	Local air cooling	Local air cooling
Power Supply	13 string lithium battery	13 string lithium battery
Basic Computing Power	8-core high-performance CPU	8-core high-performance CPU
Sensing Sensor	Depth Camera+3D LIDAR	Depth Camera+3D LIDAR
4 Microphone Array	YES	YES
5W Speaker	YES	YES
WiFi 6、Bluetooth 5.2	YES	YES
High Computing Power Module	/	NVIDIA Jetson Orin
Smart Battery (Quick Release)	9000mAh	9000mAh
Charger	54V 5A	54V 5A
Manual Controller	YES	YES
Battery Life	About 2h	About 2h
Upgraded Intelligent OTA	YES	YES
Secondary Development [3]	/	YES
Warranty Period [4]	8 months	1 year
Price(Tax and Shipping cost excluded)	US \$16K	Contact sales

Mechanical Dimensions

Electrical Characteristics

Accessories

Other

[1] The maximum torque of the joint motors of the whole machine is different. This is the maximum torque of the largest joint motor among them.

[2] The maximum load of the arm varies greatly under different arm extension postures.

[3] For more information, please read the secondary development manual.

[4] For more detailed warranty terms, please read the product warranty brochure.

[5] The above parameters may vary in different scenarios and configurations, please subject to actual situation.

[6] The humanoid robot has a complex structure and extremely powerful power. Users are asked to keep a sufficient safe distance between the humanoid robot and the humanoid robot.Please use with caution

[7] If any change in the appearance of the product, please refer to the actual product.

[8] Some sample functions on this page are still being developed and tested, and will be opened to users in the future.

[9] 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.

[10] Please visit Unitree Robotics Website for more related terms and policies, and comply with local laws and regulations.