

Génération ROBOTS

Web: www.generationrobots.com

Tel: +33 (0)5 56 39 37 05

Mail: contact@generationrobots.com

UNITREE R1

Ultra-lightweight, Fully Customizable



Unitree R1 Parameters



Mechanical Dimensions	Model	R1	R1 EDU
	Height, Width and Thickness (Stand)	1210×357×190mm	1210×357×190mm
	Weight (With Battery)	About 25kg	About 25kg
	Degree of Freedom (Total Joints)	24	24–40
	Single Leg Degrees of Freedom	6	6
	Single Arm Degrees of Freedom	5	5
	Waist Degrees of Freedom	2	2
	Head Degrees of Freedom	/	2
	Dexterous Hand	/	Optional
	Joint output bearing	Crossed roller bearings, Double Hook Ball Bearings	
	Joint motor	Low inertia high-speed internal rotor PMSM(permanent magnet synchronous motor, better response speed and heatdissipation)	
	Max Torque of Arm Joint [1]	About 2kg	About 2kg
	Calf + Thigh Length	675	675
	Forearm + Upper Arm Length	435	435
Electrical Characteristics	Joint Movement Space	Waist Joint: : Y±150° R:±30° Knee Joint: -10° ~+148° Hip Joint: Y:±157° P:-168° ~+146° R:-60° ~+100°	
	Electrical Routing	Hollow + Internal Routing	Hollow + Internal Routing
	Joint Encoder	Dual + single encoder	Dual + single encoder
	Cooling System	Local air cooling	Local air cooling
	Power Supply	Lithium battery	Lithium battery
	Basic Computing Power	8–core CPU	8–core CPU
	Microphone Array	4–Mic Array	4–Mic Array
	Speaker	YES	YES
	Wifi6、Bluetooth 5.2	YES	YES
	Humanoid Binocular Camera	YES	YES
Accessories	High-Power Computing Module	/	NVIDIA Jetson Orin Optional (40–100Tops)
	Smart Battery (Quick Release)	YES	YES
	Charger	YES	YES
	Manual Remote Control	YES	YES
Other	Battery Life	About 1h	About 1h
	Upgraded Intelligent OTA	YES	YES
	Secondary Development[2]	/	YES
	Warranty Period [3]	8 Months	12 Months

[1] The maximum load of the arm varies greatly under different arm extension postures.
[2] For more information, please read the secondary development manual.
[3] For more detailed warranty terms, please read the product warranty brochure.
[4] The above parameters may vary in different scenarios and configurations, please subject to actual situation.
[5] 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 people.Please use with caution.
[6] If any change in the appearance of the product, please refer to the actual product.
[7] Some sample functions on this page are still being developed and tested, and will be opened to users in the future.
[8] Currently, the global humanoid robot industry is in the early stages of exploration. Individual users are strongly advised to thoroughly understand the limitations of humanoid robots before making a purchase.
[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.