


Unitree R1 Specification

picture	name	Functional Description
	R1 Edu Smart Version	Height, width and depth (standing): 1210x357x190mm
		Weight with battery: about 25kg
		Total degrees of freedom of the whole machine (joint motor): 26
		Single leg degrees of freedom: 6
		Waist degrees of freedom: 2
		Single arm degrees of freedom: 5
		Head degrees of freedom: 2
		Maximum arm load: 2kg
		Calf + thigh length: 0.675m
		Arm span: about 0.435m
		Large joint motion space Waist joint: $Y \pm 150^\circ$, $R \pm 30^\circ$ Knee joint: $-10^\circ \sim +148^\circ$ Hip joint: $Y \pm 157^\circ$, $P - 168^\circ \sim +146^\circ$, $R - 60^\circ \sim +100^\circ$
		Fully hollow joint internal wiring: Yes
		Joint encoder: dual + single encoder
		Cooling system: local air cooling
		Power supply: lithium battery
		Basic computing power: 8-core high-performance CPU
		High computing power module: 100Tops expansion dock, capable of secondary development, including AI algorithm technology support
		Support high-level and low-level secondary development, provide robot models and simulation interfaces, and support simulation environments such as ISSAC SIM
		Provide excellent technical support services, complete development
		Standard speaker and microphone array
		WiFi 6, Bluetooth 5.2: Yes
		Perception sensor: humanoid binocular camera
		1 charger, 1 smart battery (quick release)
		1 handheld remote control
		Battery life: about 1h
		Smart OTA upgrade: support
		Secondary development: None
		Warranty period: 12 months
		Robot accessories: 1. Remote control 2. Charger 3. Robot transport box