

D1 Max四足机器人产品参数表

分类	规格	说明
基础信息	材质信息	铝合金+高强度工程塑料
	站立尺寸 (长 × 宽 × 高)	930mm×480mm×585mm
	趴地尺寸 (长 × 宽 × 高)	930mm×630mm×200mm
	整机重量 (含电池)	41kg
	自由度	12+4dof
	工作温度	-20℃~55℃
	防护等级	IP67
	电池	504.9Wh*2, 双电池, 支持快拆快换, 支持热插拔
	充电时长	<1.5h
	续航时间	空载5±0.5h, 满载3.5±0.5h
	续航里程	空载29±1km, 满载18±1km
性能参数	整机算力	157 Tops/Nvidia Orin NX 16GB
	最大速度	6m/s
	额定负载	25kg
	连续攀爬楼梯高度	25cm
	最大爬坡角度	45°
	极限跨越障碍高度	80cm
	带载跨越高度	50cm
	最窄掉头宽度	支持原地调头、支持前后向切换
	匍匐行走高度	34±0.5cm
	最大关节扭矩	150N·m
	关节运动空间 (机身)	-30°~40°
整机关节参数	关节运动空间 (大腿)	-160°~160°
	关节运动空间 (小腿)	-160°~160°
传感单元	激光雷达	前后各1个96线激光雷达、覆盖角度360°*90°、覆盖直径范围120m
	相机FOV	前后各1个FPV相机, 工业级800万像素, 视场角: DFOV122°, HFOV111°, VFOV70°
	补光灯	补光灯*4, FPV相机左右各1个。照射距离≥3m
	IMU	车规级IMU*1
	RTK模块	GNSS RTK*1
	超声波传感器	左右各1个超声波, 支持5m以内的障碍物识别
功能列表	标准动作	踏步、滑行、匍匐等姿态, 前后左右直线移动、原地旋转、转弯等, 支持膝关节姿态变换。
	实时图像传输	支持
	二次开发	支持, 提供SDK开发包, 机器人模型提供3D数模和urdf文件用于仿真
	通讯功能	支持WIFI 5.0, WiFi频段为2.4GHz, WiFi发射功率为23dBm。支持蓝牙5.0
	供电接口	5V、12V、24V、48V, 最大输出功率480W
	功能拓展接口	千兆网口*2、USB3.0*2、RS232*1、RS485*1、SBUS*2、PPS*1
配件	适配器	标配
	充电座	标配
	遥控器	带屏遥控器, 遥控距离700-1000m
	自主充电桩	选配

注释说明

(1)功能拓展接口使用说明, 详见拓展说明手册;

(2)详细的保修条款, 详见产品保修手册;

(3)以上参数为实验室测试数据, 实际表现可能因使用环境、操作方式等因素有所差异, 请以实际为准;

D1 Max Quadruped Robot — Technical Specification Sheet

Category	Specification	Description
Basic Information	Material	Aluminum alloy with high-strength engineering plastic
	Standing Dimensions (L × W × H)	930 mm × 480 mm × 585 mm
	Lying Down Dimensions (L × W × H)	930 mm × 630 mm × 200 mm
	Total Weight (with battery)	41kg
	Degree of Freedom	12+4dof
	Operating Temperature	-20°C ~55°C
	Ingress Protection Rating	IP67
	Battery Module	504.9Wh*2, Dual batteries, supporting quick release and replacement, with hot-swap capability
	Charging Duration	< 1.5 hour
	Battery Life (Operating Time)	5±0.5 h at no-load, 3.5±0.5 h at full-load
Performance Parameters	Operating Range	29±1 km at no-load, 18±1km at full-load
	Total computing power	157 Tops/Nvidia Orin NX 16GB
	Maximum Speed	6 m/s
	Effective Payload	25 kg
	Continuous Stair-Climbing Height	25 cm
	Maximum Climbing Angle	45°
	Maximum Obstacle Crossing Height	80 cm
	Load-carrying clearance height	50 cm
Joint Parameters	Minimum Turning Width	Supports on-the-spot reversing and forward/reverse switching
	Crawling Height	34±0.5cm
	Maximum Joint Torque	150N·m
	Joint Range of Motion (Body)	-30°~40°
	Joint Range of Motion (Thigh)	-160°~160°
Sensors	Joint Range of Motion (Calf)	-160°~160°
	Lidar	One 96-line LiDAR at the front and one at the rear, each providing 360° × 90° coverage and a detection range of 120 m in diameter
	Camera FOV	One FPV camera each at the front and rear, industrial-grade 8-megapixel resolution, field of view: DFOV 122°, HFOV 111°, VFOV 70°
	Fill Lights	4 fill lights—one on each side of the FPV camera. Illumination range ≥3 m
	IMU	Standard configuration
	RTK Module	GNSS RTK unit*1
Function List	Ultrasonic Sensors	1 Ultrasonic sensor on each side, obstacle detection up to 5 m
	Standard Actions	Stepping, gliding, crawling, and other postures; Support straight-line motion forward/backward/left/right, in-place rotation, and knee-joint pose adjustment
	Real-Time Image Transmission	Supported
	Wheel-Leg Interchangeability	Supported
	Secondary Development (SDK)	Supported, Provide SDK development packages, with robot models offering 3D digital models and URDF files for simulation.
	Communication Features	Supported WIFI 5.0, The Wi-Fi frequency band is 2.4 GHz, Wi-Fi transmission power is 23 dBm. Supported Bluetooth 5.0
	Power Ports	5 V, 12 V, 24 V, 48 V; maximum output 480 W
	Functional Expansion Ports	Gigabit Ethernet*2, USB 3.0*2, RS-232*1, RS-485*1, SBUS*2, PPS*1
Accessories	Power Adapter	Standard
	Charging Dock	Standard
	Remote Control	Screen Remote Control, range700-1000m
	Autonomous Charging Dock	Optional

Notes:

(1) For functional expansion interface usage instructions, refer to the Expansion Manual;

(2) For detailed warranty terms, refer to the Product Warranty Manual;

(3) The above parameters are laboratory test data. Actual performance may vary due to factors such as operating environment and usage methods. Actual results prevail..