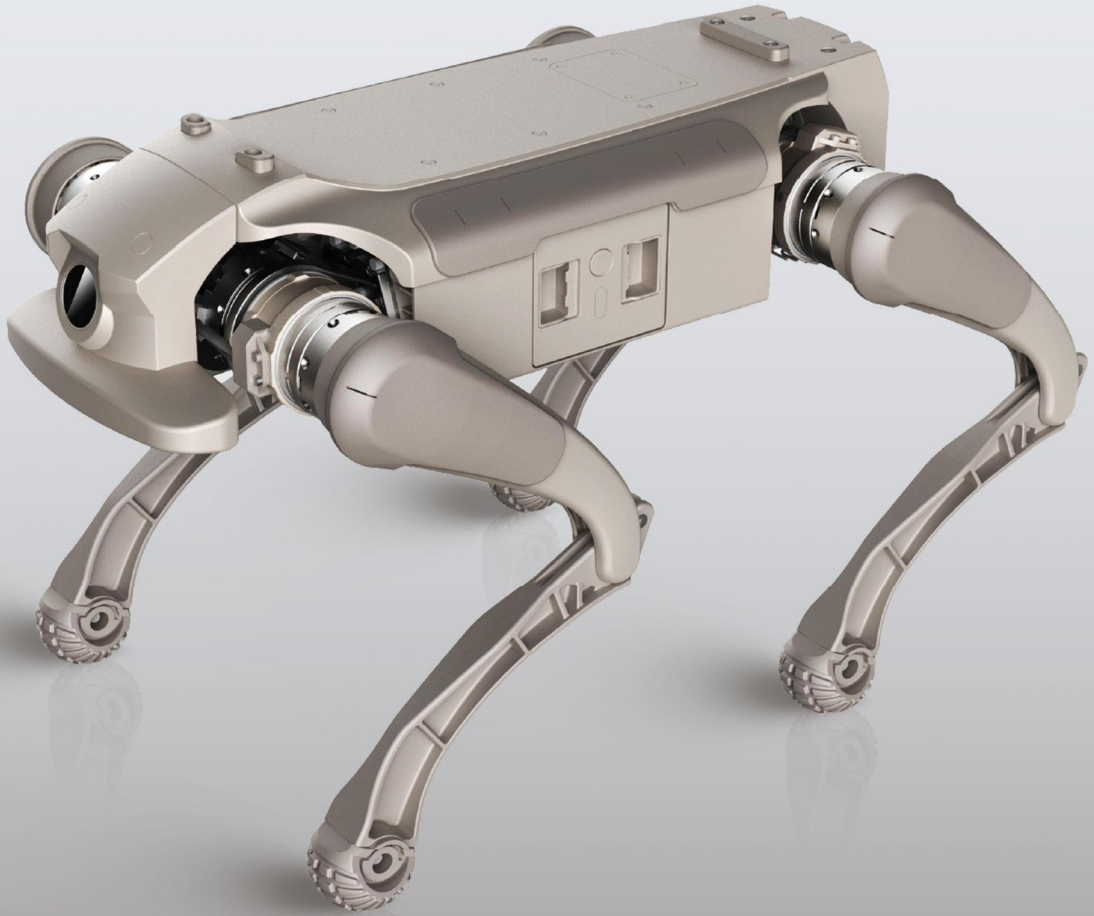
智元 AGIBOT | 智元酷拓 AGIQUAD

智元 D1 Ultra

产　品　说　明　书



DESCRIPTION OF PRODUCT

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智元四足机器人售后服务指南

AGIBOT Quadruped Robot After-Sales Service Guide

报修方式/Methods for Reporting Repairs

我们提供7x12小时（国家法定节假日除外）服务,并承诺在收到请求后30分钟内首次响应,您可通过以下任一渠道联系我们:

- 服务热线：400-186-0818
- 微信公众号：智元AGIBOT→点击“在线咨询”→选择“售后咨询”
- 服务邮箱：AfterSalesService@agibot.com

We provide 7x12-hour service (excluding national statutory holidays) and guarantee an initial response within 30 minutes of receiving your request. You may contact us through any of the following channels:

- Service Hotline: 400-186-0818
- WeChat Official Account: Zhiyuan AGIBOT → Click “Online Consultation” → Select “After-Sales Support” Service
- Email: AfterSalesService@agibot.com

企业微信售后

Wechat After-sales Support

智元创新(上海)科技股份有限公司
咨询热线：400-186-0818
官网：zhiyuan-robot.com

法律声明

在使用本产品前，请用户务必仔细阅读本产品说明书，并严格按照本手册内容操作本产品。任何违反本手册内容使用而导致的财产损失或人身伤害，本公司概不负责。本产品由多个零部件构成，请确保儿童无法接触本产品，以避免意外发生。本产品仅限 18周岁以上人士使用。为延长产品使用寿命，请勿在高温、高压环境中使用。本手册尽可能包含本产品的功能介绍和使用说明，但由于功能不断完善和设计变更等原因，实物与手册内容可能存在偏差。如实物与本手册在颜色、外观等方面有出入，请以实物为准。

使用限制

- 本产品不可由身体、感官或智力残障人士以及无相关经验与知识之人士（包括儿童）使用，除非有监护人的看管或指导，以确保其能够安全使用本产品。
- 请勿让儿童将本产品当成玩具，主机工作时请监督儿童及宠物使其尽量远离。
- 如果电源软线损坏，必须用专用软线或从其制造商或维修部购买到的专用组件来更换。
- 请勿在悬空环境没有防护栏的情况下使用。
- 当本产品在使用过程中出现腿乱摆、剧烈晃动等非正常现象时，请按下【紧急停止】键以启动软急停功能，使其进入保护状态。本产品将自动趴下，待排查问题后，即可正常操作本产品。
- 请勿将本产品倒扣放置。请勿将狗腿作为提手搬运。
- 请勿在高于40° C、低于0° C的环境下使用。
- 请勿在电磁干扰环境下使用。
- 请勿在Wi-Fi或2.4G信号干扰环境下使用。
- 本产品启动之前，请确保周围有 1 米以上的空间，人或物体远离运动路径，避免发生碰撞。
- 本产品通过楼梯或斜坡时，请勿站在其下方的楼梯、平台或斜坡上，以避免其跌落时可能会造成的人员损伤。
- 请勿将儿童或宠物以及任何物品放置在静止或运行中的主机上。
- 搬运时请勿把手伸入关节运动范围内，以防止夹伤甚至划伤。
- 身体部位远离运动零部件
- 清洁和维护主机及充电座前请关机并将电源插头拔出。
- 请勿使用湿布擦拭或任何液体冲洗主机、充电座。
- 请勿使用任何第三方电池、电源线或充电座，仅可与标配充电座配套使用。
- 请勿私自拆解、修理、改装主机、电池或充电座，拆解、修理和改装之后将不再提供质保服务。
- 请勿将充电座靠近热源放置。
- 请勿随意抛弃废弃电池，应交由专业回收机构处理。
- 如长时间不使用本产品，请充满电后关闭主机并放置于阴凉干燥处，至少每3个月充电一次避免电池出现过放。
- 如需运输产品，请确保主机处于关机状态，并建议使用原包装盒包装。
- 请依照说明书的指示使用本产品，因不当使用导致的任何损失和伤害，由用户自行承担。
- 本产品仅用于商用、民用及科研场景，严禁用于任何军事用途。

注意事项

（1）关节和线束检查

请检查各关节是否有异物影响，线束是否有破损，并确保足垫完好无损。

（2）电池电量与相机清洁

检查电池电量，确保充足，避免突然倒地或摔倒。同时，请保持头部相机表面清洁，避免用硬物划伤镜片，如有污垢，请及时用干软布擦拭。

（3）清洁产品注意事项

请勿使用含酒精等有溶解或腐蚀成分的液体清洁本产品。

（4）合理放置与地面环境

放置时，请确保腿部自然无负重状态，避免机身重力对腿部关节造成伤害。避免使产品趴卧在坚硬、尖锐或凸起过多的地面上，以免划伤机身。

（5）足垫和磨损

足垫是消耗品，使用时应留意磨损情况。发现磨损、破损或四足机器人对地面冲击噪音增大时请及时更换足垫，以免损害四足机器人的运动。

（6）安全使用和地形适应性

使用时请保持在视线范围内，并预留足够安全距离，远离障碍物和可能碰撞的障碍物。尽管产品具有良好的地形适应性，但仍需注意地形是否符合要求。

（7）速度、转弯和复杂地形

快速转弯容易失控，尤其在陡坡、不平坦或未知地形，避免冒险操作，降低速度。

（8）陡坡和爬坡角度

限制在额定正向爬坡角度以内，并避免在较大爬坡角度下直接转弯，以免四足机器人失稳。请妥善控制在陡坡和坡度大的地形的操作。

（9）最高速度和禁止使用场合

在平整地形下最高开放速度可达 3.5m/s。禁止在复杂地面、湿滑地面、有杂物的地面、超过规格的坡度地面或附近有尖锐物体的场合使用本产品。

（10）关节和电池状态检查

如果发现关节松动、无法正常站立、运行噪音过大，请立即停止使用并检查关机，寻求专业维修。

（11）低电量警示

在电量显示低的状态下，产品可能没有足够动力执行动作，请及时充电以避免危险。

（12）安全注意事项

避免手部或身体接触四足机器人运动部件，以免夹伤或碰伤。同时，避免接触关节电机表面的金属部件，以免烫伤。

（13）产品散热和清理

长时间连续使用可能导致电机过热，请定期休息。如产品受污染，请及时清理。

（14）电源连接规格

请使用符合规格的快充线连接本产品。

（15）关机注意

使用完毕后，请立即关机。

电池和充电注意事项

（1）电池使用限制

禁止拆卸电池或将电池极片通过任何方式引出使用。

（2）适配器和清洁

禁止使用酒精或其他可燃剂清洁电源适配器，避免潜在的安全风险。

（3）应对电池泄漏

若电池发生泄漏导致电解液进入眼睛，请避免揉擦，并立即用清水冲洗眼睛，随后寻求医疗治疗。

（4）异常

如充电过程中电池出现异味、冒烟、变形或其他异常情况，请立即拔掉电源适配器并进行检查。

（5）安全温度

充电时的电源适配器可能会产生较高温度，请避免长时间触摸，以防止烫伤。

（6）电源适配器

请勿使用已损坏的电源适配器，仅限使用官方电源适配器。非官方电源适配器可能导致锂电池泄漏、发热、起火或爆炸。

（7）充电时间

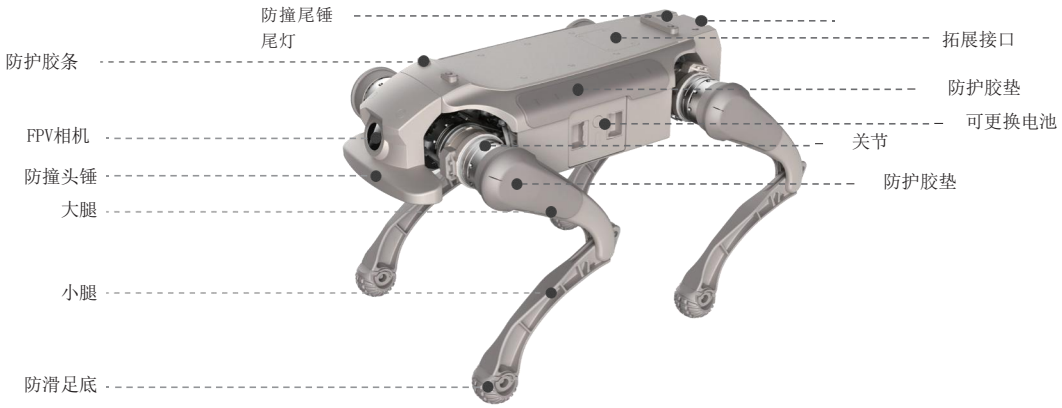
电池充电时间不应超过 24小时，过度充电可能缩短电池寿命。

产品概述

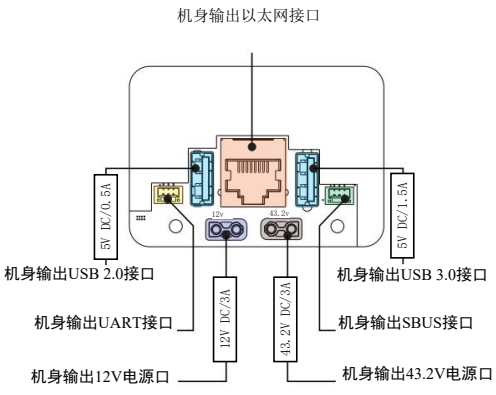
D1 Ultra（产品型号ZYCXD105U）拥有 12 个自由度，具有多种运动步态和运动动作。同时，本品开放了运动控制算法开发 SDK和通信协议，允许用户根据需要进行二次开发。

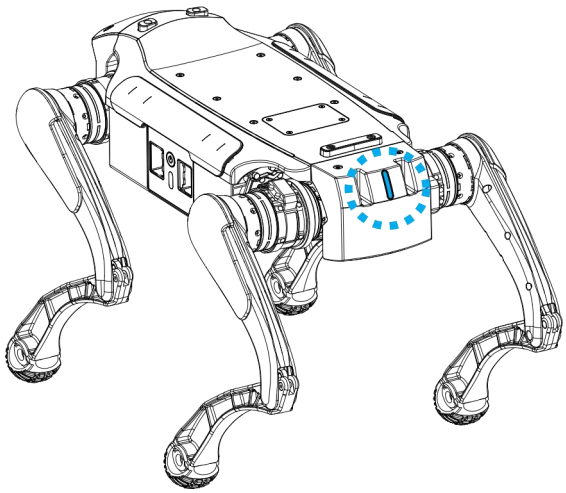
部件介绍

本体介绍



拓展接口

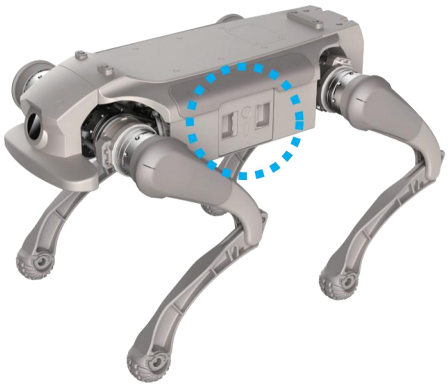
序号	接口名称	数量	说明	备注
1	以太网口	1	RJ45接口，支持1000Mbps传输速率，用于高速数据传输，支持网络连接、远程监控、数据传输等应用。	
2	USB接口	2	Type-A接口，用于连接外部存储设备、摄像头、传感器等USB设备，提供高速数据传输和电力供应。	
3	电源接口	2	标准DC电源接口，提供稳定的电源供应，支持12V和43.2V电压输出，满足四足机器人及上装设备的电力需求。	
4	SBUS接口	1	标准SBUS接口，用于连接遥控器接收器或其他支持SBUS协议的通信设备，实现精确的遥控指令传输。	
5	UART接口	1	标准 UART 接口，用于连接嵌入式系统、通信设备或其他支持UART 协议的设备，通过异步串行通信实现设备间的数据交换与控制。	

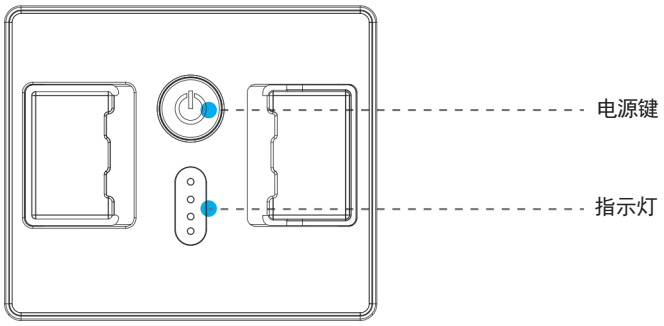


灯效说明

灯光	灯语	备注
蓝色常亮	开机完成	
蓝色闪烁	开机中	
白色常亮	狂暴模式	此模式下运动能力提升并解锁特技
绿灯常亮	追踪模式开启	
黄灯常亮	电池电量低于20%	电池电量不足，无法开启狂暴模式
黄灯闪烁	电池电量低于5%	电池电量不足，需立即充电
红灯常亮	关节温度过高，需要冷却	
红灯闪烁	系统异常，需要联系售后	

电源介绍





开机状态电池显示

电池容量 LED 指示（空闲和放电）

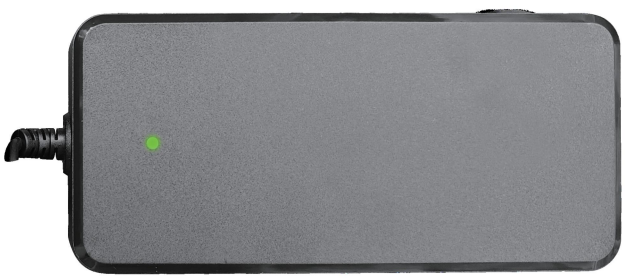
No.	SOC (%)	LED1	LED2	LED3	LED4
1	0~14	Flashing	OFF	OFF	OFF
2	15~24	ON	OFF	OFF	OFF
3	25~49	ON	ON	OFF	OFF
4	50~74	ON	ON	ON	OFF
5	75-100	ON	ON	ON	ON

充电状态电池显示

电池容量 LED 指示（充电）

No.	SOC (%)	LED1	LED2	LED3	LED4
1	0~24	Flashing	OFF	OFF	OFF
2	25~49	ON	Flashing	OFF	OFF
3	50~74	ON	ON	Flashing	OFF
4	75~99	ON	ON	ON	Flashing
5	100	ON	ON	ON	ON

电源适配器



不亮灯	未通电
亮灯	接通市电（100v~240v）

首次使用前准备

①开箱

四足机器人应在关机状态下整体抬出航空箱；操作时须双手托举机身，避免腿部承重；腿部仅允许沿关节自由度方向进行小角度辅助调整；严禁逆关节限位方向用力掰动；
不规范操作可能导致关节限位损伤、编码器偏移或站立异常！

②开机

将四足机器人从包装箱中取出，放在平整的地面上。将电池取出，插入到四足机器人的电池仓中。短按电池电源键一次，再长按5秒，松开后再等待20秒，即完成开机。

③关机

四足机器人需要确保处于趴下姿态，然后长按电源3秒以上，电池上的所有 LED 灯都灭完了后，进入关机状态。

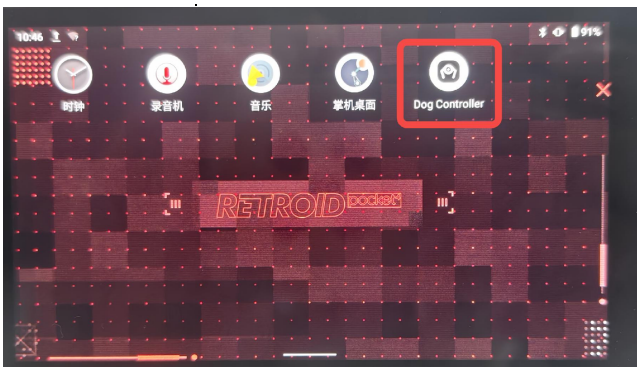
遥控器使用说明

连接方式

1、长按遥控器上方开机键开机。

2.、点击“Dog Controller”进入应用。

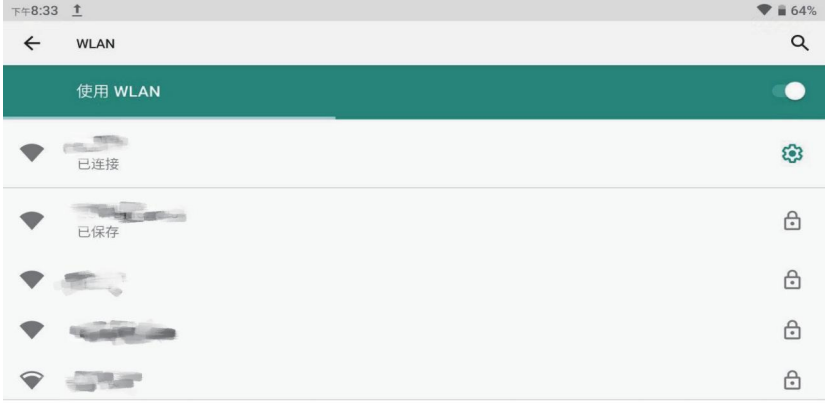
3、显示APP主页面



4、系统通用设置界面。点击左上角按钮进入。

5、点击右上角“未连接”，进行遥控器连接

6、选择要连接的四足机器人WiFi，WiFi名称在机身铭牌上查看，参考格式“XG01_3BW001”



7、连接成功

操作说明

本产品提供 常规模式 和 狂暴模式 两种运行模式。

常规模式：具备稳定的常规运动能力与标准动作，适用于日常使用。

狂暴模式：在提升运动性能的同时，解锁更多特技动作，适用于科研与演示场景。

	动作	常规模式	狂暴模式
常规/狂暴模式切换		APP内操作	
通用动作	站立	APP内操作	APP内操作
	阻尼（缓慢趴下）	APP内操作	APP内操作
	卧倒（紧急停止）	L1+R1或APP内操作	L1+R1或APP内操作
移动动作	前后左右移动	左侧摇杆前/后/左/右推	左侧摇杆前/后/左/右推
原地动作	原地/移动切换	APP内操作	
	俯仰调整	右侧摇杆前/后推	右侧摇杆前/后推
	水平转身	右侧摇杆左/右推	右侧摇杆左/右推
	左/右探头	Y/A	Y/A
	高/低身形	X/B	X/B
特技动作	向上跳	/	APP内操作
	向前跳	/	APP内操作
	后空翻	/	APP内操作
	打招呼	/	APP内操作
	双腿站立	/	APP内操作

警告：狂暴模式下的特技动作可能影响设备寿命

在狂暴模式下执行特技动作会对设备的关节模组施加较大负荷，长时间运行可能导致关节加速磨损，严重影响其使用寿命。请谨慎开启，并合理控制使用时长，以确保设备长期稳定。

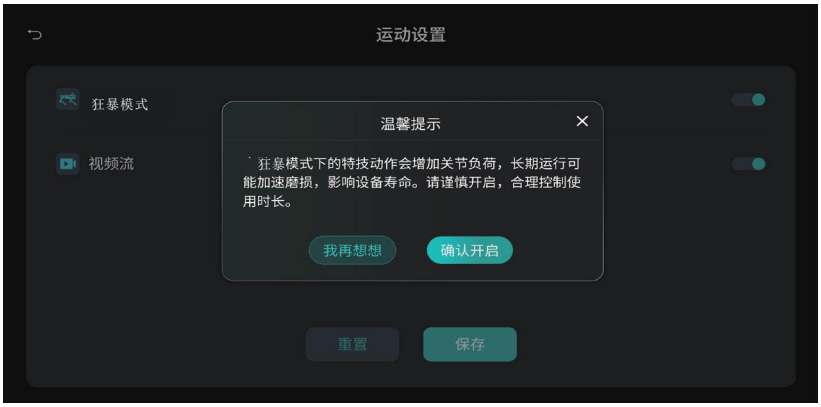
开启狂暴模式

1、点击左上角设置按钮。

2、进入运动设置。

3、开启狂暴模式。

4、狂暴模式开启提示。如确认，点击确认开启。



5、狂暴模式开启。

功能说明

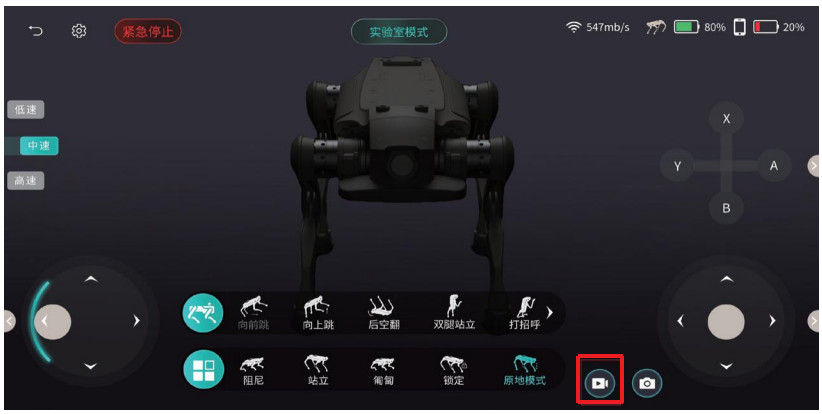
1、基础控制

a. 点击右下角控制按钮，进入控制页面

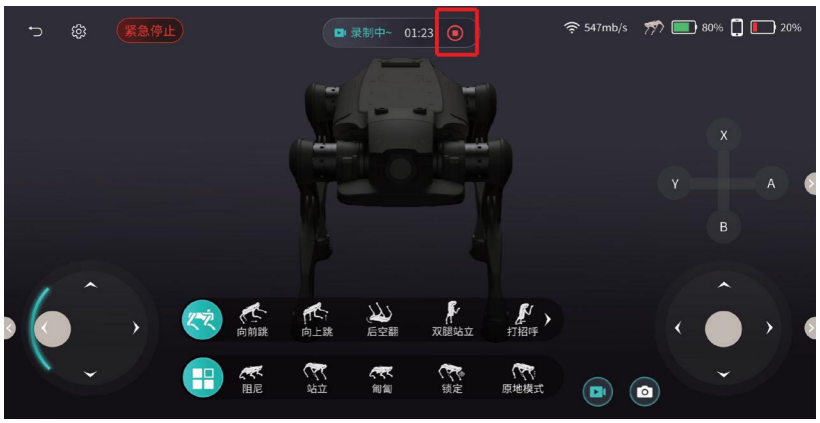
b. 可通过点击屏幕中间的按钮、虚拟摇杆、虚拟按键控制四足机器人移动以及身形变化。

2、录屏

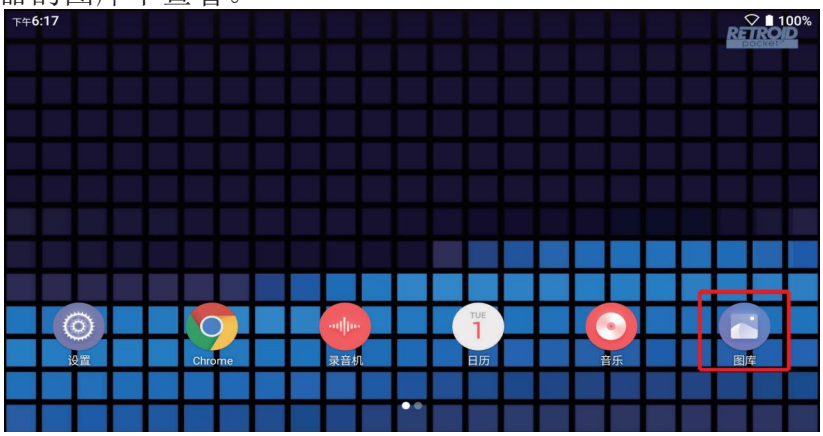
a. 点击屏幕右下方的录屏按钮开始录屏。



b. 录屏中。点击红色结束按钮可停止录屏。



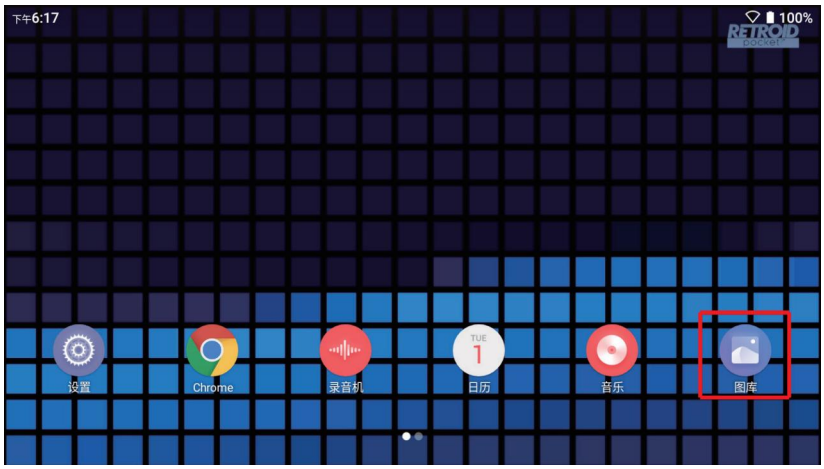
c. 视频可到遥控器的图库中查看。



3、截图

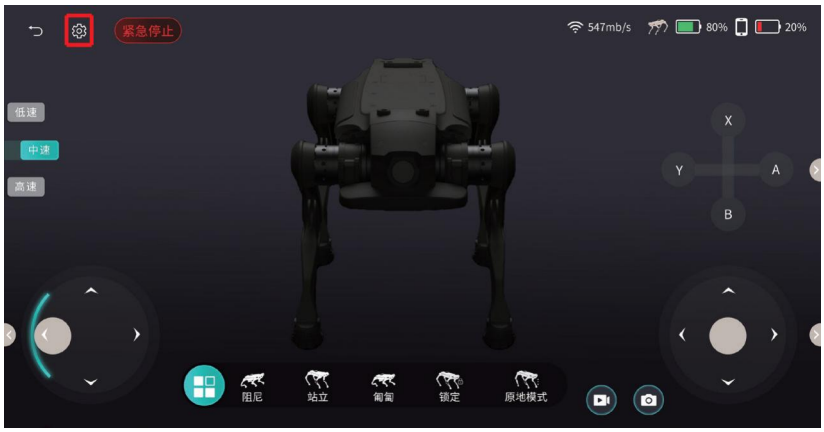
a. 点击屏幕右下方的录屏按钮截图。

b. 截图可到遥控器的图库中查看



4、追踪功能

a. 点击左上角设置。



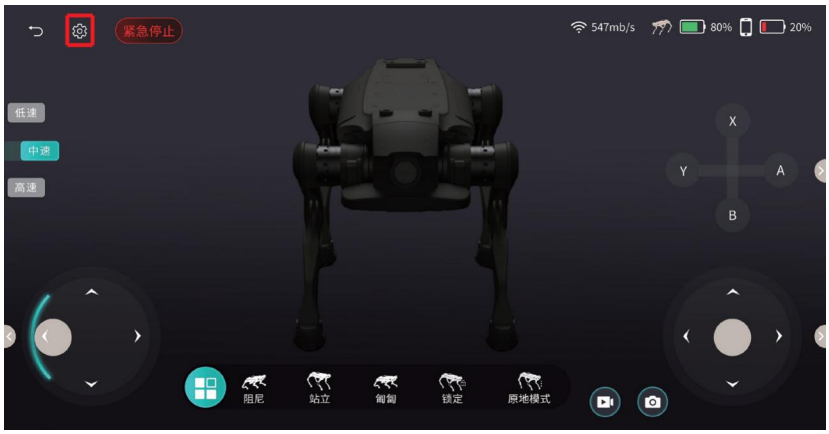
b. 选择追踪功能。

c. 红框识别所有可追踪目标，点击选中目标，再点击“开始追踪”，即可触发追踪功能（功能触发后会持续追踪，为避免误伤被追踪目标，请及时取消）。

d. 点击“停止追踪”，即可取消追踪功能。

5、视频流开关

a. 点击左上角设置。



b. 进入运动设置。

c. 选择视频流开关，保存设置。

产品参数

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）	630mm×360mm×420mm
	趴地尺寸（长 × 宽 × 高）	670mm×435mm×145mm
	整机重量（含电池）	16kg
	工作温度	0℃ ~40℃
	防护等级	IP54
性能参数	最大速度	3.7m/s
	额定负载	5kg
	连续攀爬楼梯高度	16cm
	最大爬坡角度	标准环境30°，极限可达40°
	跳跃离地高度	35cm
电气参数	电池	额定容量4.6Ah，电压43.2v
	充电时长	约1h（电量10%-90%）
	续航时间	1-2h
	续航里程	6±1km

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；

故障排除

常见问题	处理措施
遥控无法连接四足机器人怎么办?	先确认四足机器人已启动，然后确认遥控器后台无其他版本的 APP 正在运行。若依然无法连接四足机器人， 请重启四足机器人和 APP 后再次尝试连接。
连接四足机器人后手柄操作没有 反应怎么办?	确认手柄是否已经连接到正确的四足机器人WiFi。若已连接但依然无法操控,请等待10秒后再次尝试操控 四足机器人。若仍无反应，请重启四足机器人。
四足机器人自己停止运动是正常 现象吗?	可能是触发四足机器人保护功能,请等待10分钟后再次尝试。若依然无法控制四足机器人继续运动,请先检查电量是否充足,再检查手柄信号是否断连。

运输储存

（1）产品运输

包装箱的尺寸为640 *460 *415mm，产品毛重（带包装箱）共21kg，带箱运输前请将电池从四足机器人中取出，运输过程中务必保证运输箱正面朝上。

（2）存储环境

电源适配器及整机存储时，请放置在干燥阴凉的环境中，避免阳光直射、火源与强电磁场环境。推荐存放温度为20℃至 25℃。请勿将产品存放在超过 60℃或低于 -10℃的环境中。长时间存储时，建议温度控制在 20℃ -25℃、相对湿度为 0～ 60% RH，电池总电量控制在50%以下为佳。

（3）电池注意事项

长时间闲置可能影响电池性能，避免深度放电以保持电池状态。

电池充满后将自动停止充电，但建议断开连接以保持电池状态。

请定期检查电池电量，并每隔约3个月进行一次充放电以维持电池活性。

如电量低于20%，应及时充电到 40%-60%进行存放，以避免电池损坏。

（4）轻拿轻放

开机后请避免提起或搬运本产品，搬运前请务必关机处理。

搬运时请轻拿轻放，避免机械冲击导致零部件损坏。

有害物质说明

部件名称	有害物质					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
电路板	×	○	○	○	○	○
金属板	×	○	○	○	○	○
壳体	○	○	○	○	○	○
电池	×	○	○	○	○	○
其他配件	○	○	○	○	○	○

本表格依据 SJ/T 11364 的规定编制。
○ 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。
× 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。

本产品含有可充电锂电池组，报废时对环境有害，请在废弃前按照以下提示将电池从主机中取出，并合理的处置：

- 拆卸电池前请断电以及尽可能用完电量。
- 注意请勿破坏电池外壳以防危险产生。
- 请将取出的电池交由专业的回收机构处理。

保修说明

保修时间

主要部件	保修期	起始时间
整机	12个月	产品激活后（如未激活则收货90天后）开始计算
主板	12个月	
关节模组电机	12个月	
遥控器	6个月（带屏遥控器）	
充电器	6个月	
电池	6个月/200次循环	
FPV相机	6个月	

*电池保修时间为条件先到为止模式，即时间先到保修期或循环次数先到保修上限则为保修截止
*遥控器有手柄遥控器和带屏遥控器，两者保修时间不同，手柄遥控器为12个月，带屏遥控器为6个月

非保条款

（1）用户二次开发后导致的四足机器人损坏（包括但不限于：二次开发导致设备高速运动造成撞击损坏、设备跌落损坏、设备肢体参数变更损坏等）；

（2）硬件改装导致的损坏；

（3）未经授权的开壳行为；

（4）不可抗力或极端环境（包括但不限于强磁 / 高温 / 低温 / 自然灾害）导致的损坏；

（5）使用不当导致的外观损坏、结构部件损坏、内部电路损坏；

（6）碰撞、跌落造成的损坏；

（7）四足机器人内部进液、进异物导致的损坏；

（8）数据安全事故；

（9）产品被用于非法用途（包括但不限于战争活动、恐怖主义）、违反中国大陆法律法规、违反使用地国家或地区法律法规，违反国际法公约等情形，由此引发的任何问题均不在保修范围内；

（10）在实验室模式下的使用不当行为将导致设备失去保修（包括但不限于：设备高速运动导致的撞击损坏，设备特技动作导致的跌落损坏等）。

保修说明

远程技术支持

（1）支持前需提供：设备序列号、故障描述及现场影像资料；

（2）技术支持收到请求后，由一线工程师进行技术诊断并给出诊断结果和维护方案。

维修保障支持

（1）寄修：对于出现故障的设备，可以申请寄回至本公司指定维修中心，如检测为产品质量问题，则免除相关人工费，配件费。如检测非保，则收取对应的人工费，配费、物流等费用；

（2）维修周期：收到寄修设备后7个工作日（特殊情况需额外沟通）；

（3）物流：无论是否在保，其中往返物流费均由您承担，关于物流的选择由本公司进行指定，如有特殊情况可进行沟通。

免责条款

（1）本公司不承担任何形式因产品使用造成的第三方索赔；

（2）本公司不承担数据保管、丢失或泄露责任（客户需自行备份）。

智元 AGIBOT | 智元酷拓 AGIQUAD

“成为智能机器人
全球领军企业
开创通用机器人生态”

To Become a Global Leader in Intelligent Robots and Create a General Purpose Robot Ecosystem

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官方网站

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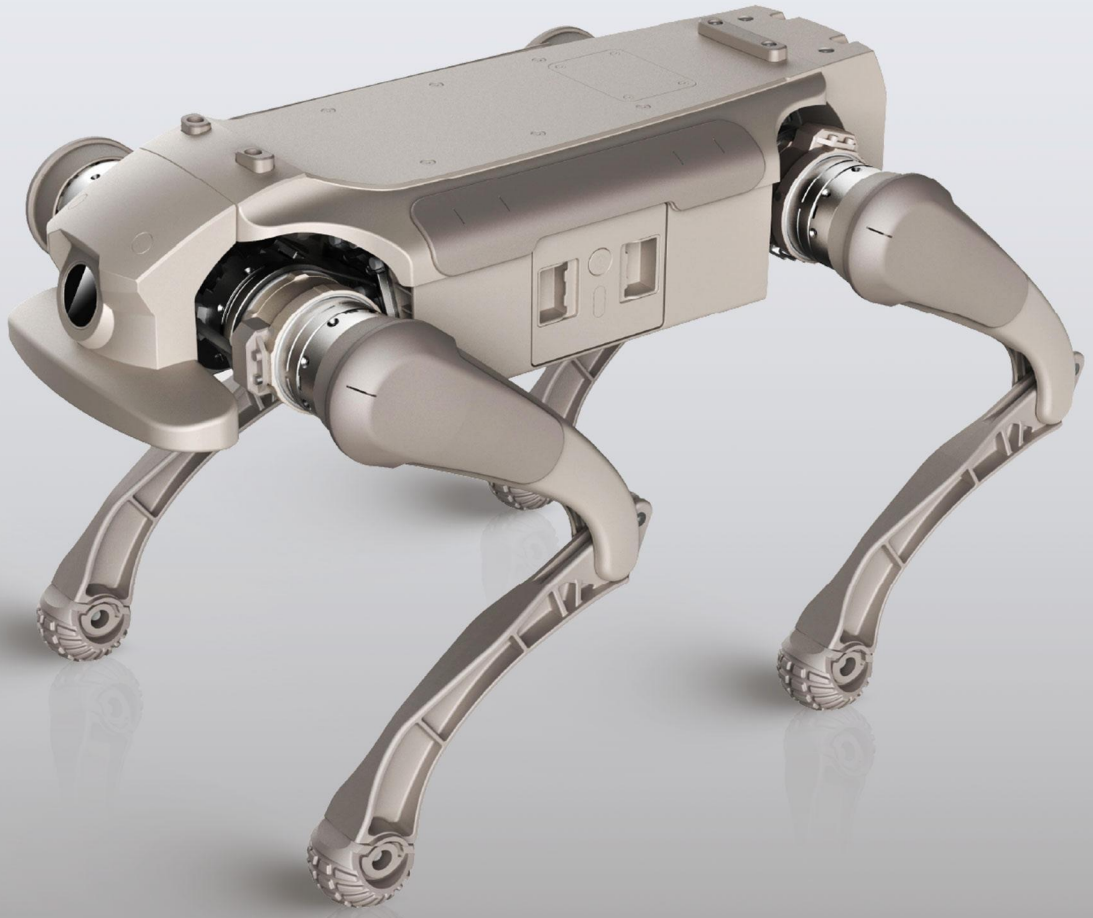
AGIBOT D1 Ultra Quardruped Robot

User Manual



Catalog

1.Legal Statement

2.Usage Restrictions

3.Notes

4.Battery and Charging Precautions

5.Product Descriptions

- 01 Product Overview
- 02 Component Introduction
- 03 Power Supply Introduction

6.Product Usage

- 01 Preparation Before First Use
- 02 Remote Control User Guide

7.Product Parameters

8.Troubleshooting

9.Transportation and Storage

10.Hazardous Substances Information

11.Warranty Information

Legal Statement

Before using this product, users must carefully read the Manual; the quadruped robot is here referred to as the “robot dog”, and strictly follow the operating instructions provided herein.

The company shall not be held liable for any property damage or personal injury resulting from misuse or failure to adhere to the guidelines in this Manual. This product consists of multiple components—please ensure that it is kept out of reach of children to prevent accidents. This product is intended for use by individuals aged 18 and above only.

To prolong the service life of the product, do not use it in environments with high temperature or high pressure.

This Manual is intended to provide comprehensive information on the product’s functions and usage. However, due to continuous improvements and design updates, there may be discrepancies between the actual product and the descriptions in this Manual. In case of any differences in color, appearance, or other aspects, the actual product shall prevail.

Usage Restrictions

- This product must not be used by individuals with physical, sensory, or mental impairments, or by those lacking relevant experience and knowledge (including children), unless supervised or instructed by a responsible guardian to ensure safe operation.
- Do not allow children to treat this product as a toy. Supervise children and pets during operation to keep them at a safe distance.
- If the power cord is damaged, it must be replaced with a special cord or component obtained from the manufacturer or authorized service provider.
- Do not operate the product in elevated areas without protective barriers.
- If the product exhibits abnormal behavior such as leg flailing or violent shaking, press the Emergency Stop button to activate the soft-stop safety mode. The robot will automatically lie down. Resume operation only after troubleshooting and resolving the issue.
- Do not place the product upside down. Do not use the robot's legs as handles for carrying.
- Do not operate the product in environments above 40°C or below 0°C.
- Do not operate the product in areas with electromagnetic interference.
- Do not operate the product in environments with Wi-Fi or 2.4G signal interference.

Before starting the product, ensure there is at least 1 meter of clear space around it, with no people or objects in the motion path, to prevent collisions.

- When the product is ascending or descending stairs or slopes, do not stand below it to avoid injury in case of a fall.
- Do not place children, pets, or any objects on the robot, whether it is in motion or stationary.
- Do not insert hands into the range of motion of the robot's joints during transport, to avoid pinching or cuts.
- Keep body parts away from moving components.
- Power off the robot and unplug the power cord before cleaning or performing maintenance on the robot or charging dock.
- Do not wipe the robot or charging dock with a wet cloth or rinse them with any liquids.
- Do not use third-party batteries, power cords, or charging docks. Only the included charging dock should be used.

Notes

(1) Joint and Cable Inspection

Check for any foreign objects around the joints, inspect all cables for damage, and ensure that the foot pads are intact and undamaged.

(2) Battery Level and Camera Cleaning

Check for any foreign objects around the joints, inspect all cables for damage, and ensure that the foot pads are intact and undamaged.

(3) Product Cleaning Caution

Do not use alcohol or any liquid containing solvents or corrosive substances to clean this pro- duct.

(4) Proper Placement and Ground Conditions

When placing the robot, ensure that the legs are in a naturally unloaded state to prevent stress on the joints. Do not rest the robot on hard, sharp, or uneven surfaces to avoid scratching the body.

(5) Foot Pad Wear

When placing the robot, ensure that the legs are in a naturally unloaded state to prevent stress on the joints. Do not rest the robot on hard, sharp, or uneven surfaces to avoid scratching the body.

(6) Safe Operation and Terrain Adaptability

Keep the robot within your line of sight and maintain a safe distance from obstacles and potential collision points. Although the robot has good terrain adaptability, always assess whether the surface is appropriate.

(7) Speed, Turning, and Complex Terrain

Sharp or fast turns may cause loss of control, especially on steep, uneven, or unknown terrain. Avoid risky maneuvers and reduce speed accordingly.

(8) Steep Slopes and Climbing Angles

Operate within the specified maximum climbing angle. Avoid turning sharply on steep slopes to prevent loss of stability. Exercise caution on steep or inclined surfaces.

(9) Maximum Speed and Prohibited Usage Environments

The robot can reach speeds up to 3.5 m/s on flat surfaces. Do not use it on complex terrain, slip- pery surfaces, cluttered areas, slopes beyond specification, or near sharp objects.

Notes

(10) Joint and Battery Condition Check

If you notice loose joints, failure to stand, or excessive noise during operation, stop use immediately, power off the robot, and seek professional service.

(11) Low Battery Warning

When the battery is low, the robot may not have sufficient power to perform movements. Charge promptly to avoid accidents.

(12) Safety Precautions

Avoid contact with moving parts to prevent pinching or injury. Do not touch exposed metal surfaces of joint motors during or immediately after operation to avoid burns.

(13) Heat Dissipation and Cleaning

Prolonged operation may cause motor overheating. Allow the robot to rest periodically. Clean the product promptly if it becomes dirty.

(14) Power Supply Specifications

Use only fast-charging cables that meet the product's specifications.

(15) Shutdown Notice

Power off the robot immediately after use.

Battery and Charging Precautions

(1) Battery Usage Restrictions

Do not disassemble the battery or extract the battery electrodes for use by any means.

(2) Adapter and Cleaning

Do not clean the power adapter with alcohol or other flammable agents to avoid potential safety hazards.

(3) In Case of Battery Leakage

If battery leakage causes electrolyte to come into contact with your eyes, avoid rubbing them. Rinse immediately with clean water and seek medical attention promptly.

(4) Abnormal Conditions

If the battery emits an unusual odor, smokes, deforms, or exhibits other abnormalities during charging, unplug the power adapter immediately and inspect the device.

(5) Safe Temperature

The power adapter may become hot during charging. Avoid prolonged contact to prevent burns.

(6) Power Adapter

Do not use a damaged power adapter. Only use the official power adapter. Using unofficial adapters may result in battery leakage, overheating, fire, or explosion.

(7) Charging Time

The battery charging time should not exceed 24 hours. Overcharging may reduce battery lifespan

Warning

FCC Warning

Any Changes expressly or modifications not approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference,and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions,may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment .This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.This equipment should be installed and operated with minimum distance 20cm between the radiator &you body

Warnning

IC Warning

ISEDC RSS warning：

This device complies with Innovation, Science and Economic Development Canada Compliance licence-exempt RSS standard (s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and

(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique

Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

ISEDC Radiation Exposure Statement:

This equipment complies with ISEDC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.

IC exposition aux radiations:

Cet équipement est conforme aux limites d’exposition aux rayonnements RF de l’isedc établies pour un environnement non contrôlé.

Cet émetteur ne doit pas être co-localisés ou fonctionner en conjonction avec une autre antenne ouémetteur.Cet équipement doit être installé et utiliséavec une distance minimale de 20cm entre leradiateur & votre corps.

Warnning

Other Warnings

the user manual for LE-LAN devices shall contain instructions related to the restrictions mentioned in the above sections, namely that:

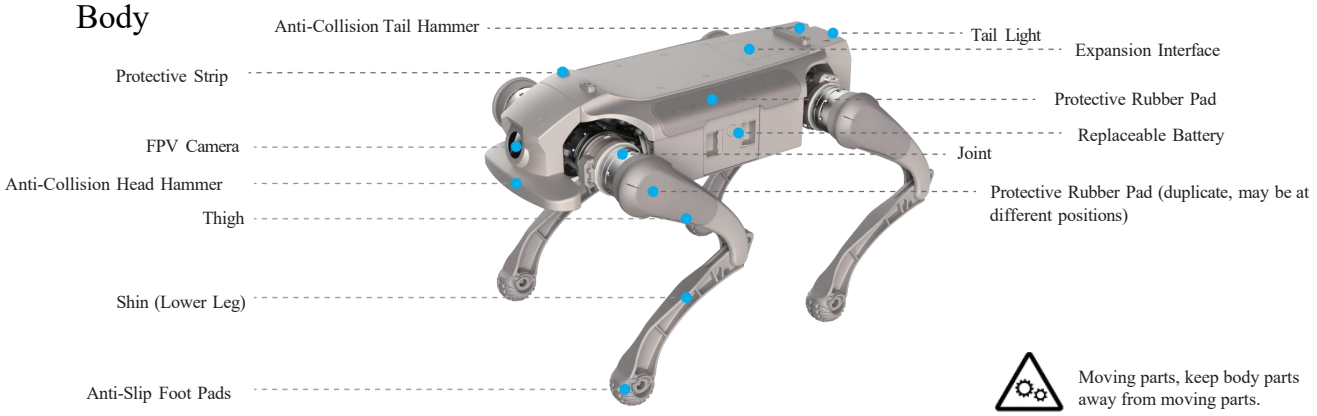
a) any devices capable of operating in the band 5150–5250 MHz shall only be used indoors to reduce the potential for harmful interference to co-channel mobile satellite systems (this requirement does not apply to OEM devices installed in vehicles by vehicle manufacturers);

Product Overview

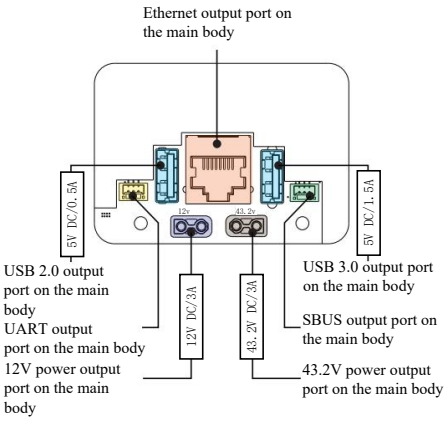
The ZYCXD105U quadruped robot features 12 degrees of freedom and supports multiple loco-motion gaits and motion behaviors. It also provides an open SDK for motion control algorithm devel- opment and communication protocols, enabling users to conduct secondary.

Component Introduction

Body



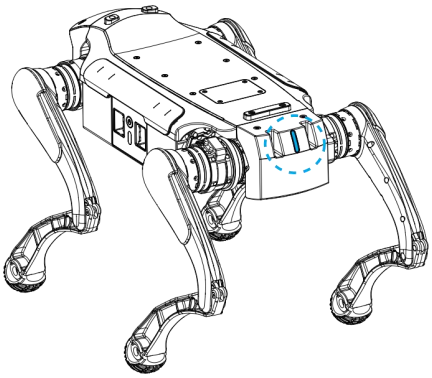
Expansion Port

No.	Interface Name	Quantity	Description	Remarks
1	Ethernet Port	1	RJ45 Interface: Supports 1000 Mbps transmission speed for high-speed data transfer. It is used for network connectivity, remote monitoring, data transmission, and other related applications.	
2	USB Port	2	Type-A Interface: Used to connect external storage devices, cameras, sensors, and other USB devices. It provides high-speed data transfer and power supply.	
3	Power Port	2	Standard DC Power Interface: Provides stable power supply, supporting 12V and 43.2V voltage outputs, meeting the power requirements of the robotic dog and its mounted devices.	
4	SBUS Port	1	Standard SBUS Interface: Used to connect remote controller receivers or other communication devices supporting the SBUS protocol, enabling precise remote control command transmission.	
5	UART Port	1	Standard UART Interface: Used to connect embedded systems, communication devices, or other devices supporting the UART protocol. It facilitates data exchange and control between devices through asynchronous serial communication.	

Disassembly and Installation Method

Use the 2mm hex screwdriver included in the toolkit to loosen the four M4 screws in sequence and remove the cover plate. To reinstall, place the cover plate back and tighten the screws in order.

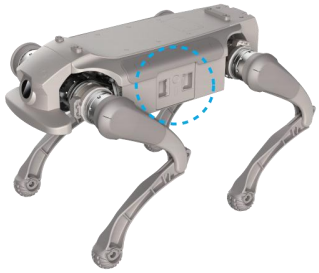
Product Descriptions

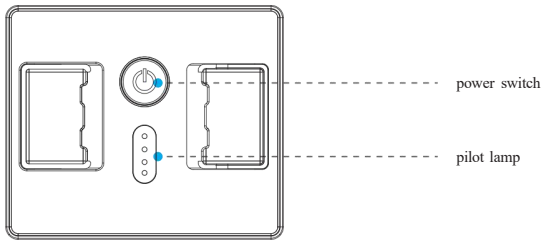


Lighting Effects Description

The light of a lamp	Lamp signal	Remarks
Blue is always on	The boot is complete	
Blue flashing	On the way to boot	
White is always on	Rage mode	In this mode, your movement ability is improved and special skills are unlocked
The green light is always on	The tracking mode is enabled	
The yellow light is always on	The battery is less than 20% charged	The battery is too low to enable the rage mode
The yellow light is flashing	Battery power is less than 5%	The battery is low and needs to be charged immediately
The red light is always on	Thejoints are too hot and need to be cooled	
Blinking red lamp	The system is abnormal and needs to contact the after-sales service	

Power Supply Introduction





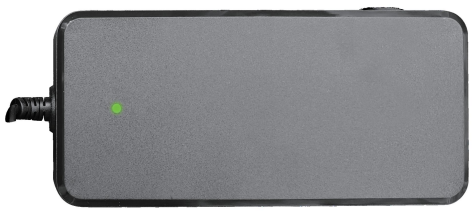
Battery display in on state

Battery capacity LED indicator (idle and discharge)					
No.	SOC(%)	LED1	LED2	LED3	LED4
1	0~14	Flashing	OFF	OFF	OFF
2	15~24	ON	OFF	OFF	OFF
3	25~49	ON	ON	OFF	OFF
4	50~74	ON	ON	ON	OFF
5	75-100	ON	ON	ON	ON

Battery display in charge state

Battery capacity LED indicator (charging)					
No.	SOC(%)	LED1	LED2	LED3	LED4
1	0~24	Flashing	OFF	OFF	OFF
2	25~49	ON	Flashing	OFF	OFF
3	50~74	ON	ON	Flashing	OFF
4	75~99	ON	ON	ON	Flashing
5	100	ON	ON	ON	ON

Power adapter



Light off	No power
Light on	Connect mains power (100V~240V)

Preparation Before First Use

Unboxing

The robotic dog must be lifted out of the shipping crate as a single unit while powered off. During handling, support the body with both hands to avoid placing weight on the legs. Legs may only be adjusted slightly along their natural joint axes for minor alignment. Never force joints beyond their limits by bending against their natural range of motion.
Improper handling may cause joint damage, encoder misalignment, or abnormal standing!

Start up

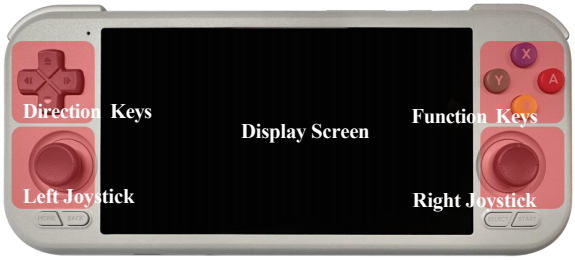
Remove the robot dog from the packaging box and place it on a flat surface.Take out the battery and insert it into the robot dog's battery compartment.Press the battery power button briefly once, then press and hold for 5 seconds. Release and wait for 20 seconds to complete startup.

Shut down

Ensure the robot dog is in a lying-down position, then press and hold the power button for over 3 seconds. Once all LEDs on the battery have turned off, the device will enter the shutdown state.

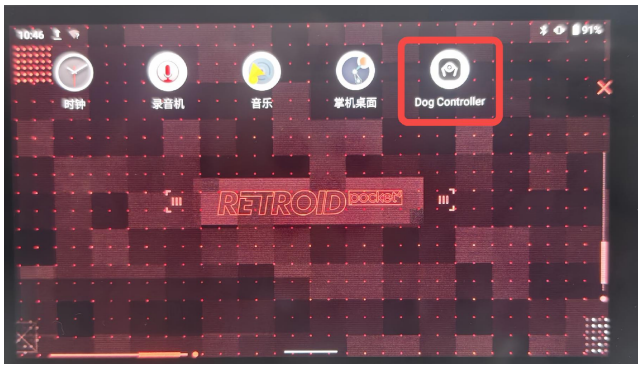
Remote Control User Guide

Remote Controller Introduction



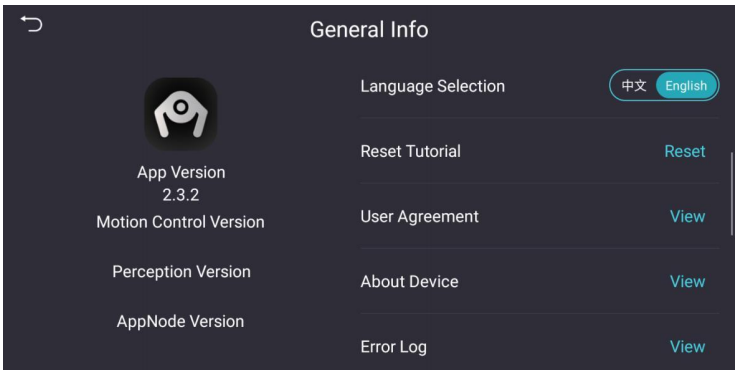
Connection Method

1. Press and hold the power button at the top of the remote controller to power on.
2. Tap "Dog Controller" to enter the application.
3. The APP main page will be displayed.



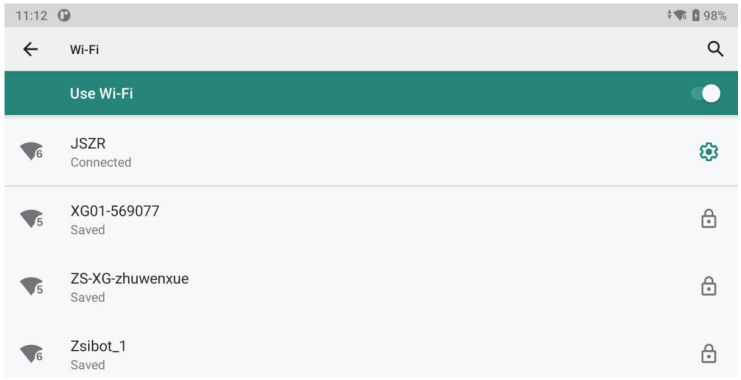
Product Usage

4. To enter the system general settings interface, tap the button in the upper left corner.



5. Tap “Not Connected” in the upper right corner to start the remote controller connection.

6. Select the WiFi of the robot dog to connect. The WiFi name can be found on the device nameplate, in the format “XG01_3BW001”.



Product Usage

7. Connection successful

Operations Instructions

This product provides two operating modes: Normal Mode and Turbo Mode.
Normal Mode: Provides stable movement capabilities and standard actions, suitable for daily use.
Turbo Mode: Enhances movement performance and unlocks additional special actions, suitable for research and demonstration scenarios.

	Action	Normal Mode	Turbo Mode
Normal/Turbo Mode Switch		Operation in APP	
General Actions	Stand	Operation in APP	
	Stand Damping (Slowly Lie Down)	Operation in APP	
	Lie Down (Emergency Stop)	L1+R1 or Operation in APP	
Movement Actions	Forward/Backward/Left/Right Movement	Push Left Joystick Forward/Backward/Left/Right	
In-place Actions	Idle/Moving Switch	Operation in APP	
	Pitch Adjustment	Push Right Joystick Forward/Backward	
	Horizontal Turn	Push Right Joystick Left/Right	
	Left/Right Head Tilt	Y/A	
	High/Low Posture	X/B	
Special Actions	Jump Up	/	Operation in APP
	Forward Jump	/	Operation in APP
	Backflip	/	Operation in APP
	Waving Greeting	/	Operation in APP
	Biped Standing	/	Operation in APP

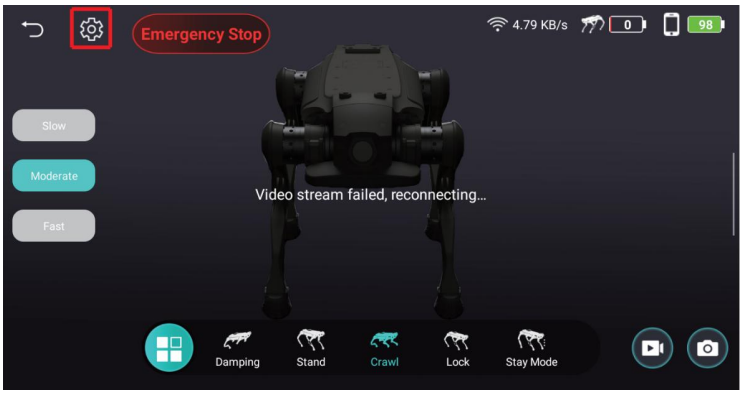
Warning: Special actions in Rage Mode may affect the device lifespan.
Performing special actions in Turbo Mode imposes heavy loads on thejoint modules. Prolonged opera- tion may cause acceleratedjoint wear and significantly reduce service life.
Please enable with caution and reasonably control the duration of use to ensure long-term stability of the device.

Enable Turbo Mode

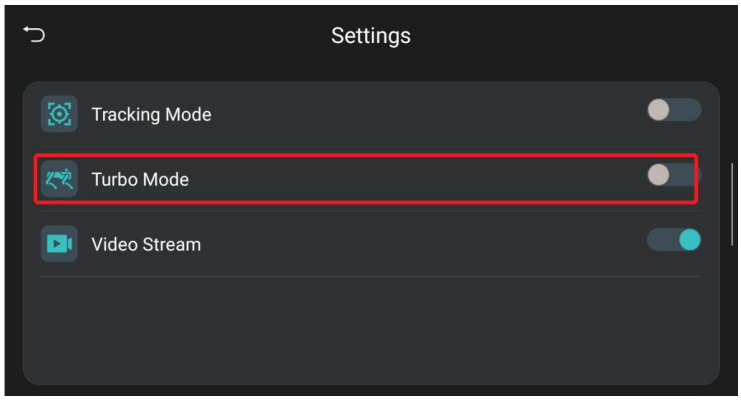
Product Usage

Enable Turbo Mode

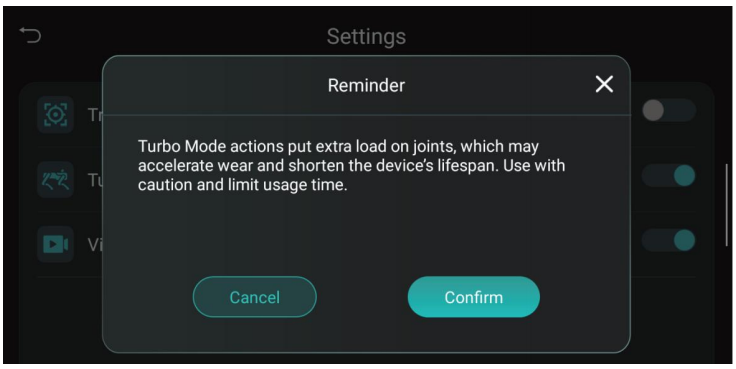
1. Tap the settings button in the upper left corner.



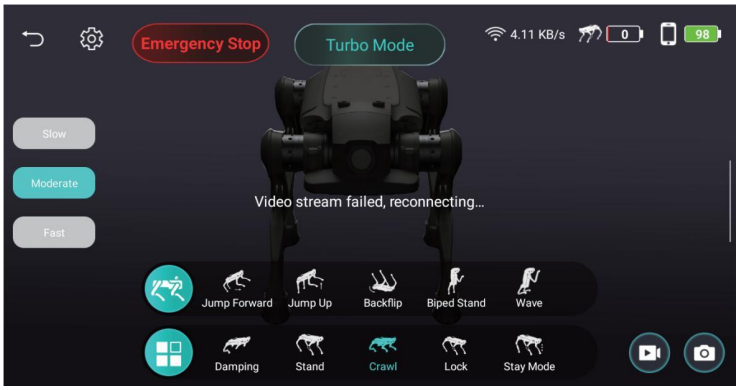
2. Enable Turbo Mode.



3. A Turbo Mode activation prompt will appear. If confirmed, tap “Confirm” to enable.



4. Turbo Mode Enabled.



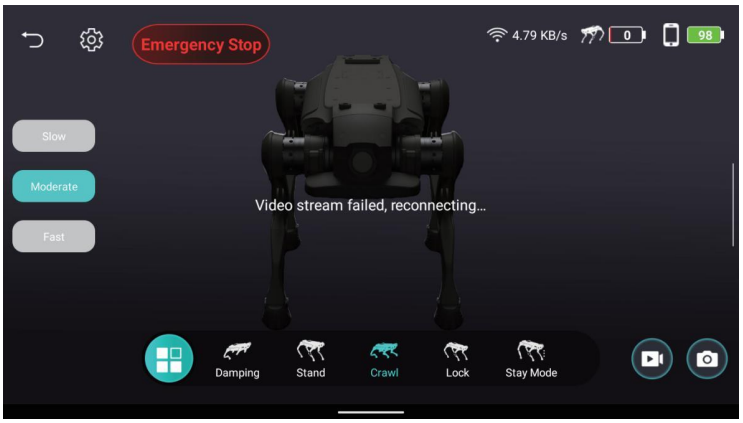
Product Usage

Function Description

1. Basic Control

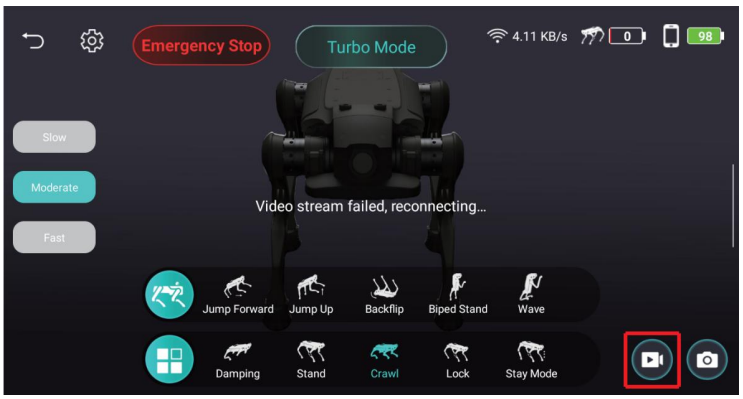
a. Tap the control button in the lower right corner to enter the control page.

b. You can control the robot dog's movement and posture changes by tapping the center button on the screen, using the virtual joystick, or virtual buttons.



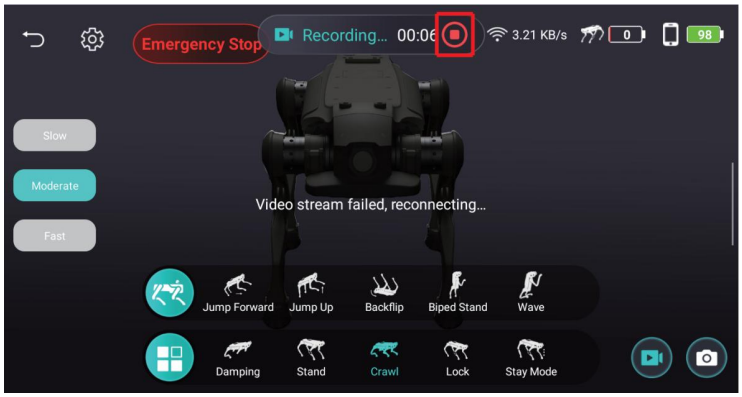
2. Screen Recording

a. Tap the screen recording button in the lower right corner of the screen to start recording.



b. Recording in progress. Tap the red stop button to end recording.

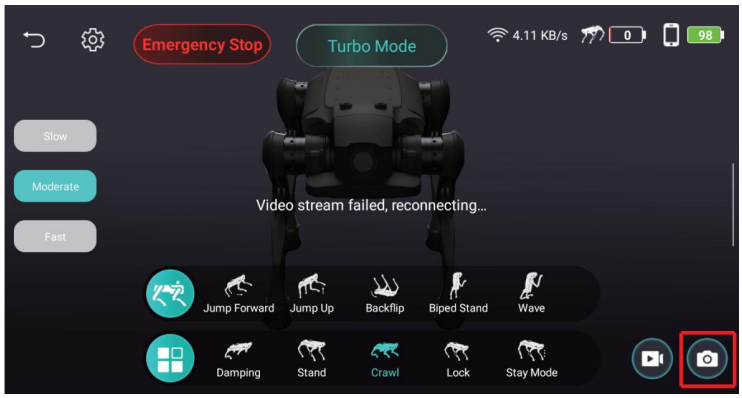
Product Usage



c. Recorded videos can be viewed in the remote controller's gallery.

3. Screenshot

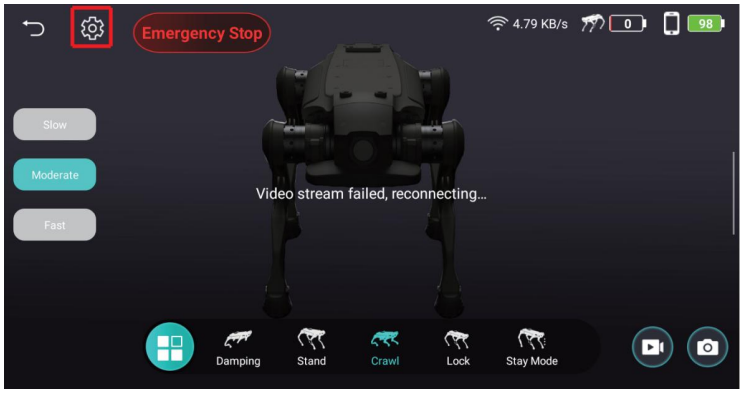
a. Tap the screen recording button in the lower right corner to take a screenshot.



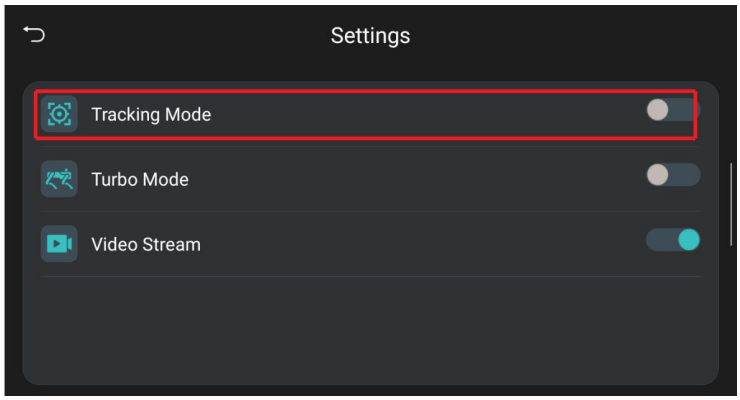
b. Screenshots can be viewed in the remote controller's gallery.

4. Tracking Function

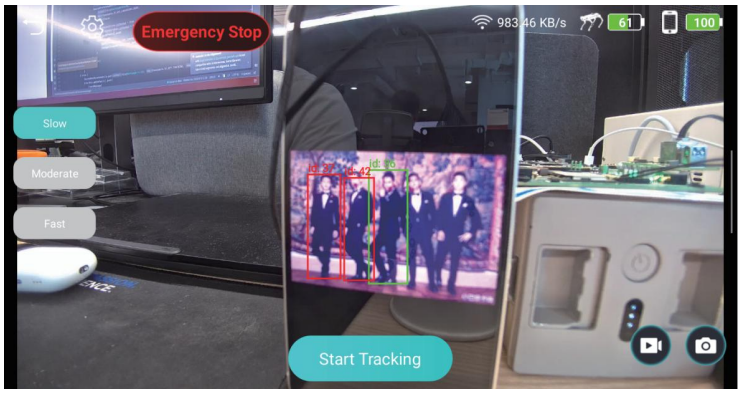
a. Tap the settings button in the upper left corner.



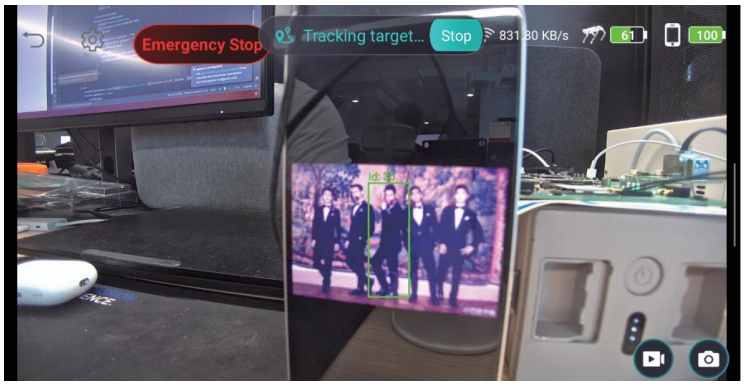
b. Select the Tracking Function.



c. Red boxes identify all trackable targets. Tap to select a target, then tap “Start Track- ing” to activate the tracking function. (Once activated, tracking will continue. To avoid acci- dentally targeting unintended objects, please cancel tracking in time.)

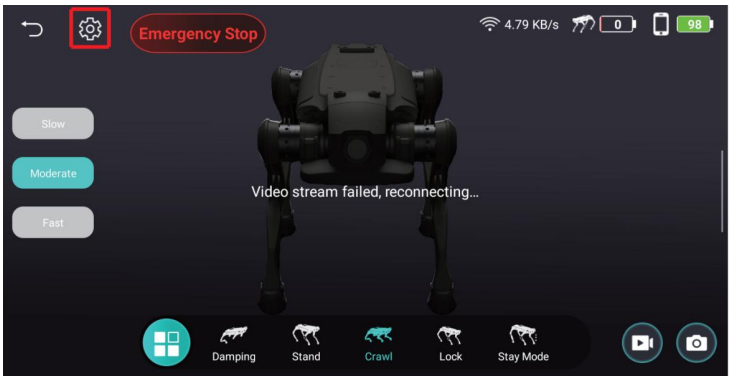


Product Usage

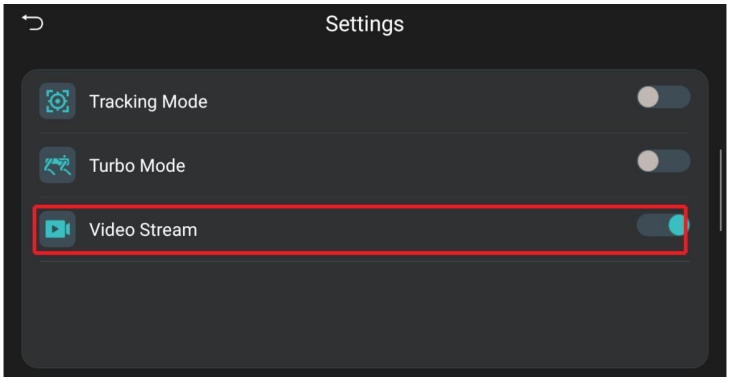


5. Video Stream Toggle

a. Tap the settings button in the upper left corner.



b. Select the Video Stream toggle and save the settings.



Product Parameter

Category	Specification	Description
Basic Information	Material	Aluminum alloy with high-strength engineering plastic
	Standing Dimensions (L × W × H)	630 mm × 360 mm × 420 mm
	Lying Down Dimensions (L × W × H)	670 mm × 435 mm × 145 mm
	Total Weight (with battery)	16kg
	Operating Temperature	0°C ~40°C
	Ingress Protection Rating	IP54
Performance Parameters	Maximum Speed	3.7 m/s
	Effective Payload	5kg
	Continuous Stair-Climbing Height	16 cm
	Maximum Climbing Angle	30° standard, up to 40° maximum
	Vertical Jump Height	35 cm
Electrical parameters	Battery Module	Rated capacity: 4.6Ah, Voltage: 43.2V
	Charging Duration	about 1 hour (battery level 10%-90%)
	Battery Life (Operating Time)	1–2 hours
	Operating Range	6±1 km

Notes：

(1) For details on the expansion interface usage, refer to the Expansion Interface Manual.

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

(3) All parameters are based on Laboratory test data. Actual performance may vary depending on environment and operating conditions.

Troubleshooting

Frequently asked questions	Treatment measure
What if the remote control can't connect to the robot dog?	First, confirm that the robot dog has been started, and then confirm that no other version of the APP is running in the background of the remote control. If you still cannot connect to the robot dog, restart the robot dog and the APP and try to connect again.
What if the handle operation of the connected robot dog has no response?	Make sure the handle is connected to the correct robot WiFi. If it is connected but still cannot control, wait 10 seconds and try again. If there is no response, restart the robot.
Is it normal for a robot dog to stop moving on its own?	It may be that the robot dog's protection function is triggered. Please wait for 10 minutes and try again. If you still cannot control the robot dog to continue moving, please check whether the battery is sufficient first, and then check whether the handle signal is disconnected.

Transportation and Storage

（1）Product Transportation

The size of the packing box is 80cm*45cm*25cm. Before carrying the box, please take the battery out of the robot dog. During transportation, be sure to keep the front of the box facing up.

（2）Storage environment

When storing the power adapter and the entire unit, place them in a dry and cool environment to avoid direct sunlight, fire sources, and strong electromagnetic fields. The recom mended storage temperature is between 20℃ and 25℃ . Do not store the product in environ- ments exceeding 60℃ or below-10℃ . For long-term storage/ it is advisable to maintain the temperature between 20℃ and 25℃/ with relative humidity at 0% to 60% RH/ and keep the total battery charge below 50%.

（3）Battery precautions

Long idle time may affect battery performance, avoid deep discharge to maintain battery state.

The battery will stop charging automatically when it is fully charged, but it is recommended to disconnect the connection to maintain the battery state.

Please check the battery charge regularly and charge and discharge every 3 months to maintain battery activity.

If the charge is less than 20%, it should be charged to 40%-60% for storage in time to avoid battery damage.

Risk of explosion if the battery is replaced by an incorrect type:

Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery. that can result in an explosion:

Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery. that can result in an explosion:

Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas:

A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas;

（4）handle gently

After starting up, please avoid lifting or carrying this product. Please be sure to turn off the machine before carrying it.

Please handle the parts gently to avoid mechanical impact and damage.

Hazardous Substances Information

Component Name	Hazardous Substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Circuit Board	×	O	O	O	O	O
Metal Plate	×	O	O	O	O	O
Housing	O	O	O	O	O	O
Battery	×	O	O	O	O	O
Other Components	O	O	O	O	O	O

This inspection is based on the provisions of SJ/T 11364.

O Indicates that the content of the hazardous substance in all homogeneous materials of the component is below the limit requirement specified in GB/T 26572.

× Indicates that the content of the hazardous substance in at least one homogeneous material of the component exceeds the limit requirement specified in GB/T 26572.

This product contains a rechargeable lithium battery pack. It is harmful to the environment when discarded. Please remove the battery from the main unit before disposal and handle it properly:

1. Before removing the battery, please power off the device and deplete the battery charge as much as possible.
2. Do not damage the battery casing to prevent potential hazards.
3. The removed battery must be handed over to a professional recycling agency for proper disposal.

Warranty Statement

Warranty Time

Main unit		Bionic quadruped robot	Starting time
Whole machine warranty	One year		The calculation starts after the product is activated(or 90 days after receipt if not activated)
Defects liability period	Motherboard	12 months	
	Joint module motor	12 months	
	Telecontroller	6 months	
	Charger	6 months	
	Cell	6 months / 200 cycles	
	FPV Cameras	6 months	

* Battery warranty time is a conditional first-to-arrive mode, that is, the warranty period or the maximum number of cycles will be the end of the warranty

* The remote control has a handle remote control and a screen remote control, the warranty time is different,the handle remote control is 12 months, the screen remote control is 6 months

Non-Insurance Clause

1. Damage to the robot caused by user's secondary development (including but not limited to: damage caused by high-speed movement of the equipment, damage caused by falling of the equipment, damage caused by changes in the limb parameters of the equipment, etc.);

2. Damage caused by hardware modification;

3. Unauthorized shell opening;

4. Damage caused by force majeure or extreme environment (including but not limited to strong magnetic field / high temperature / low temperature / natural disaster);

5. Appearance damage, structural parts damage and internal circuit damage caused by improper use;

6. Damage caused by collision and fall;

7. Damage caused by liquid and foreign matter entering the machine dog;

8. Data security accidents;

9. The product is used for illegal purposes (including but not limited to war activities, terrorism), violates Chinese mainland laws and regulations, violates the laws and regulations of the country or region where it isused, violates international conventions, etc., any problems arising therefrom are not covered by the warranty;

10. Improper use in the Frenzy mode will result in the loss of warranty for the device (including but not limited to: impact damage caused by high speed movement of the device, fall damage caused by special actions of the device, etc.).

Warranty Statement

Remote technical support

1. Support requirements: equipment serial number, fault description and on-site image data;

2. After receiving the request, the technical support will be diagnosed by the front-line engi- neer and give the diagnosis result and maintenance plan.

Maintenance support

1. Repair: For the faulty equipment, you can apply to send it back to the designated mainte- nance center of our company. If the product quality is detected, the relevant labor costs and spare parts costs will be exempted. If the product is not guaranteed, the corresponding labor costs, spare parts costs, logistics costs and other costs will be charged;

2. Maintenance period: 7 working days after receiving the equipment for repair (additional communication is required in special cases);

3. Logistics: Whether or not it is insured, the round-trip logistics costs shall be borne by you. The choice of logistics shall be designated by our company. In case of special circumstances, we can communicate with you.

Exception Clause

1. The Company shall not bear any third party claims arising from the use of the products in any form;

2. The Company shall not be liable for data storage, loss or leakage (customers need to back up by themselves).

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Global leading enterprise
Creating a universal ecosystem”

To Become a Global Leader in Intelligent Robots and Create a General Purpose Robot Ecosystem

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