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版本V1.1-202606



myAGV Plus

专为教育实验与科研开发打造

Designed for Educational Experiment &
R&D Development

Warning

BEFORE USING MYAGV PLUS READ ALL INSTRUCTIONS AND CAUTIONARY MARKINGS IN THIS MANUAL

1. Do not expose the product to rain or moisture to reduce fire or shock hazard.
2. Do not place the product in or near fire.
3. Do not leave the product in a car in hot or humid weather.
4. Do not disassemble, crush or pierce the product.
5. Do not expose the product to excessive shock such as dropping from a high place.
6. Do not expose the product to high temperatures above 60 °C (140 °F).

Attention

This brochure introduces the myAGV Plus.

Official Website: https://docs.elephantrobotics.com/docs/myAGV_Plus_en/

myAGV Plus

**Next-Generation AI Mobile Robot
for Education, Research &
Robotics Development**



myAGV Plus is a next-generation intelligent mobile robot upgraded from myAGV 2023, featuring enhanced computing performance, perception, and motion control accuracy. Powered by the NVIDIA Jetson Orin Nano Super 8GB and an FOC brushless motor drive system, it delivers powerful AI computing, precise motion control, and stable performance. Supporting autonomous navigation, path planning, obstacle avoidance, visual recognition, and pose estimation, it enables reliable autonomous operation in complex environments. With open interfaces and a flexible software ecosystem, myAGV Plus is ideal for robotics education, AI research, algorithm development, and intelligent inspection applications.



Motor

FOC Planetary BLDC
Geared Motor



Course

Practical New Science
Curriculum



Speed

Maximum Speed up to
1.6 m/s



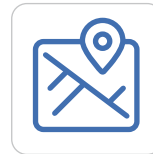
Simulation

Supports RVIZ2 and
Gazebo Simulation



System

Compatible with ROS 2
Humble



Mapping and Navigation

Supports 2D/3D SLAM
and Nav2



Compound Robots

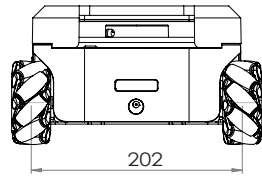
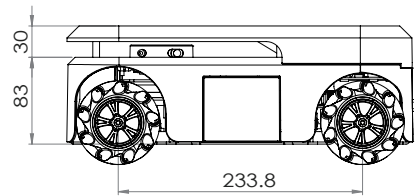
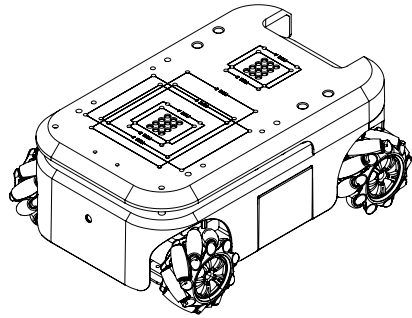
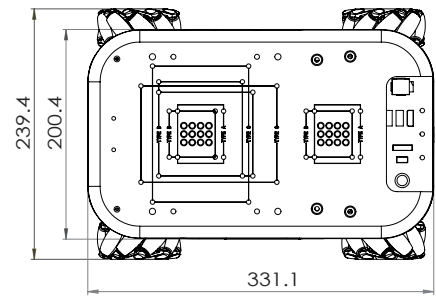
Compatible with Robots for
Various Applications



Modular Design

Quick-Release Battery
Design

Structural Parameters



Parameter

Model	myAGV Plus
Core Controller	Jetson Orin Nano 8GB
Dimensions	311.15*230*110mm
Weight	<5KG
Navigation Batter Life	-
Standby Battery Life	-
Charging Voltage	24V 1A
Wheel Type	Mecanum Wheel
Motor	FOC Planetary BLDC Motor

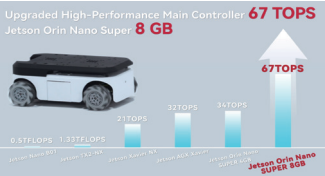
Maximum Speed	1.6m/s
Maximum Load	8KG
LiDAR	360°omnidirectional
LiDAR Range	0.12-8m
Built-in Camera	500W pixels
Composite	myPalletizer 260 Series mechArm 270 Series myCobot 280 Series myArm 300 ultraArm Series

Product Performance



High-Precision Motion Control

Powered by FOC brushless motors and a high-frequency control system, it delivers high-precision positioning for applications including experimental teaching, trajectory playback, and automated process demonstrations.



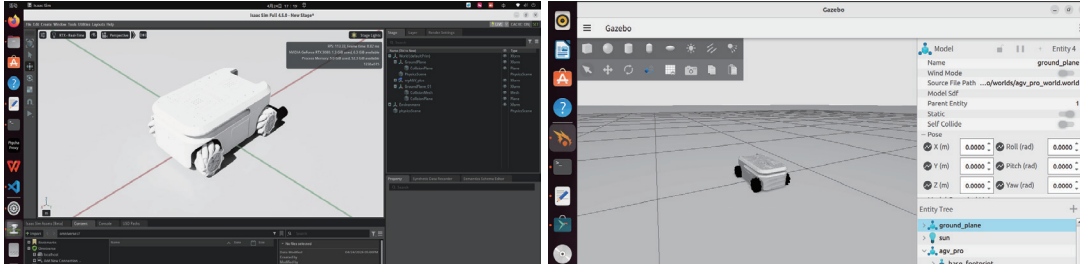
High-Computing Main Controller

Powered by the Jetson Orin Nano Super 8GB controller with up to 67 TOPS of AI computing power, it enables smooth performance for a wide range of robotics development scenarios.



Multi-Robot Integration Compatibility

Compatible with multiple robotic arms to build compound robot applications, it enables tasks such as mobile manipulation and logistics sorting.



Open Software Ecosystem & Simulation Support

Powered by the ROS2_control architecture, it is fully compatible with mainstream simulation environments such as ROS2 Humble, Gazebo (Ignition), and Isaac Sim, it enables rapid algorithm deployment and efficient virtual simulation validation.

Hardware Interfaces



Product Packing List

Component name	Quantity
myAGV Plus	1
PS2 Gamepad	1
Power Adapter	1
Dupont Wire (Male-to-Male, Male-to-Female, 30CM)	1

Component name	Quantity
LEGO Technic Key	1
Robotic Arm Power Supply Cable	1
Product Brochure	1
Hex Allen Wrench	1
HDMI Cable	1

⚠ 警告

在使用本产品之前, 请阅读本手册中所有说明及警告提示。

- 为避免火灾或电击危险, 请勿将产品暴露在雨中或潮湿的地方。
- 请勿将产品放在火中或靠近火处。
- 请勿将本产品放置或使用在炎热潮湿的地方。
- 请勿暴力拆卸本产品。
- 请勿将产品暴露在过度的冲击下, 如从高处跌落。
- 不要将产品暴露在超过60°C(140°F)的高温下。

⚠ 开机必读

本册为myAGV Plus产品画册

关于本产品的操作使用及二次开发, 请先在大象机器人官网阅读并下载Gitbook相关指导说明.

下载链接: https://docs.elephantrobotics.com/docs/myAGV_Plus_cn/



myAGV Plus 是在 myAGV2023 平台基础上完成全面硬件升级的新一代智能移动机器人, 围绕计算性能、感知能力与控制精度进行了系统性强化。产品搭载 Jetson Orin Nano Super 8GB 高性能计算平台, 在算力与实时性方面实现显著提升; 配合 FOC 行星直流无刷电机驱动系统, 实现更高精度的运动控制与更稳定的动态响应。myAGV Plus 支持自主导航、路径规划、障碍物检测与避障、视觉识别与位姿估计等关键能力, 可在复杂环境中实现稳定可靠的自主移动与任务执行; 依托其开放接口与软件生态, 还可扩展实现远程监控、多设备协同及定制化控制逻辑。myAGV Plus 适用于教学实验、科研开发、机器人算法验证、智能巡检等多类应用场景。



电机

FOC 行星无刷
直流减速电机



课程

实践式新科学课程



速度

最高速度可达
1.6m/s



仿真

支持RVIZ2、
Gazebo仿真



系统

适配ROS2 Humble



建图导航

支持2D/3DSLAM,
Nav2



复合机器人

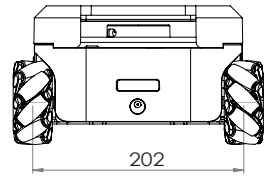
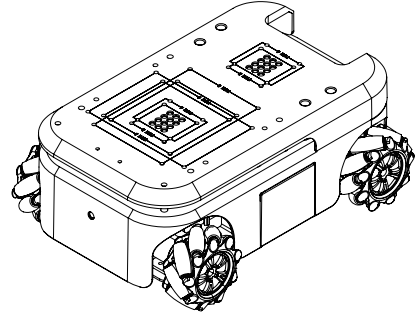
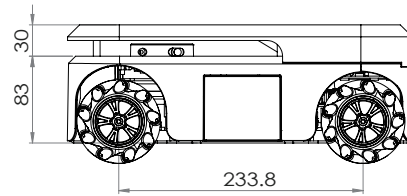
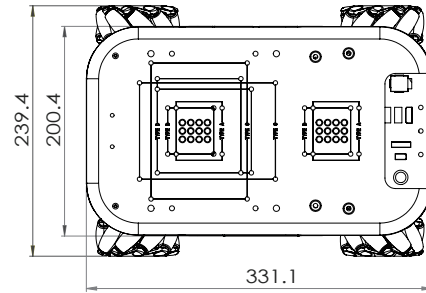
多种应用场景
复合机器人适配 Humble



模块化设计

电池快拆更换

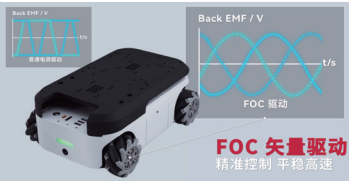
结构参数



产品参数

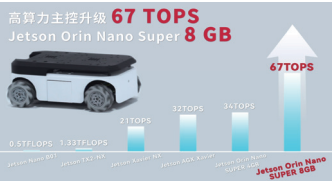
型号	myAGV Plus	最大速度	1.6m/s
主控	Jetson Orin Nano 8GB	负载	8KG
尺寸	311.15*230*110mm	雷达	360°全向
重量	<5KG	雷达范围	0.12-8m
导航电池续航	-	内置摄像头	500W像素
待机电池续航	-	适用复合机器人	myPallitizer 260 系列
充电电压	24V 1A		mechArm 270 系列
轮子类型	麦克纳母轮		myCobot 280 系列
电机	FOC 行星直流无刷减速电机		myArm 300
			ultraArm 系列

产品性能



高精度运动控制

依托 FOC 无刷电机与高频控制系统，满足高精度定位需求，适用于实验教学、路径复现及自动化流程演示。



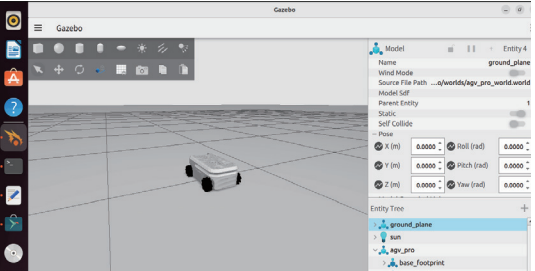
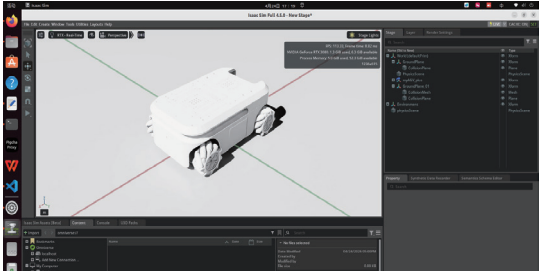
高算力主控

搭载 Jetson Orin Nano Super 8GB 主控，67TFOPS 峰值算力，轻松满足机器人全场景开发需求。



复合机器人

可搭载多款机械臂，搭建复合机器人场景应用，实现移动抓取、物流分拣等。



开放软件生态与仿真支持

搭载ROS2_Control架构，全面兼容 ROS2 Humble、Ignition Gazebo 、Isaac Sim 等主流仿真环境，助力开发算法快速迁移部署、高效完成虚拟仿真验证。

硬件接口



- ① 电源开关
- ② 机械臂供电接口
- ③ DC / IO 接口组
- ④ USB 3.0 *2
- ⑤ HDMI接口
- ⑥ 网络端口
- ⑦ 直流电源输入接口

产品发货清单

组件名称	数量
myAGV Plus裸机	1
PS2手柄	1
适配器	1
杜邦线(公对公、公对母, 30CM)	1

组件名称	数量
乐高科技键	1
机械臂供电连接线	1
产品画册	1
内六角扳手	1
HDMI线	1

产品保修卡

用户信息(必填):

购买人 _____ 订单号 _____ 联系电话 _____

地址 _____ 物流签收日期 _____

产品问题描述(必填): _____

如需退换货, 请事先联系客服确认退回相关信息。待客服确认后, 填写此卡并将这一页随同产品一起寄回。

注: 我司在法律允许范围内保留对本产品保修卡解释和修改的权利。

- 产品自签收起7日内未拆封可无理由退换, 因产品退换所产生的费用及其他风险需由客户承担。
- 用户如需产品保修服务需提供相应的购买单据及产品保修卡作为保修凭证。
- 凡属于正常使用下由于产品本身质量问题引起的硬件故障, 保修期内大象机器人给予免费维修。
- 保修起始日期为产品购买日或物流签收日。
- 维修更换的配件归大象机器人所有, 必要时会收取适当的成本费用。

以下为详细的配件保修服务说明(如需以下产品售后服务, 请事先联系客服沟通并确认相关信息)

电机	
保修期限	保修服务
≤1个月	我司免费提供一个新电机并承担寄送运费(仅一次)
1-3个月	我司免费提供一个新电机, 由客户自行承担运费(仅一次)
≥3个月	客户需自己重新购买

电子件	
保修期限	保修服务
≤3个月	由用户拆卸后寄回，我司免费更换并承担往返运费(仅一次)
3-6个月	由用户拆卸后寄回并承担往返运费，我司免费更换(仅一次)
≥6个月	客户需自己重新购买

结构件，含外壳部分	
保修期限	保修服务
≤1年	我司免费提供新的零件，由客户自行承担运费(仅一次)
≥1年	客户需自己重新购买

特别说明: 在交付产品的保修期内，本公司仅对正常使用机器人时发生的故障进行免费修理。

但在以下情况下， 将对客户收取修理费用(即使在保修期内):

- (1) 因不同于手册内容的错误使用以及使用不当而导致的损坏或故障
- (2) 客户未经授权进行拆卸导致的故障
- (3) 属于外壳等部件自然的消耗，磨损及老化
- (4) 因调整不当或未经授权进行修理而导致的损坏
- (5) 因地震、洪水等自然灾害导致的损坏

因此，请严格遵照本手册及相关手册的指示对机器人进行操作。

WARRANTY CARD

Customer Information (Required):

Purchaser _____ Order No. _____ Phone _____

Address _____ Logistics Receipt Date _____

Product problem description(Required):

If you need to apply for warranty service, please contact our customer service to confirm the detailed information. After confirmation, please fill in the card and send it back together with the product and the attached invoice. Note: Our company reserves the right to explain and modify the warranty card of this product within the scope of the law.

- Return service is limited to goods not opened within 7 days after the receipt date of logistics of the products. The freight or other risks incurred in return shall be borne by the customer.
- Customers should provide the purchasing invoice and warranty card as the warranty certification when a warranty is being asked.
- Elephant Robotics will be responsible for the hardware faults of products caused by the normal using during the warranty period.
- The warranty period starts from the date of purchase or the receipt date of the logistics.
- The faulty parts from the products will be owned by Elephant Robotics, and the appropriate cost will be charged if necessary.

If you need to apply for warranty service, please contact our customer service first to confirm the detailed information.

Motor	
Warranty Period	Warranty Services
≤1 months	Elephant Robotics offers a free new motor and bear the freight.
1-3 months	Elephant Robotics offers a free new motor, customs shall bear the freight.
≥3 months	Customers need to buy it themselves.
Electrical Parts	
≤3 months	Customers need to send it back after disassembly, Elephant Robotics shall send a new one for free and bear the freight out and home.
3-6 months	Customers need to send it back after disassembly and bear the freight out and home, Elephant Robotics shall send a new one for free.
≥6 months	Customers need to buy it themselves.
Structure Parts, including Shell Parts	
≤1 year	Elephant Robotics offers free new components once, customs shall bear the freight.
≥1 year	Customers need to buy it themselves.

During the warranty period of the delivered product, the company only repairs the malfunctions that occur during normal use of the robot for free. However, in the following cases, the customer will be charged for repairs (even during the warranty period):

- Damage or malfunction caused by incorrect use and improper use different from the contents of the manual.
- Failure caused by unauthorized disassembly by the customer.
- Damage caused by improper adjustment or unauthorized repairs.
- Damage caused by natural disasters such as earthquakes and floods.

Therefore, please strictly follow the instructions in this manual and related manual to operate the robot.

