Elephant Robotics 大象机器人

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大象码垛机械臂

myPalletizer 260 M5

全包裹轻量级四轴码垛机械臂
Fully wrapped lightweight four-axis palletizing robotic arm

⚠ 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℃(140℃CF)的高温下。

⚠ **开机必读**

本册为 myPalletizer 大象码垛机械臂产品画册

⚠ 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相关指导说明：
　　1. Gitbook; 2. 用户手册；3. 开发引导手册

下载链接：https://www.elephantrobotics.com/mypalletizer

myPalletizer

myPalletizer 260 M5

Elephant Robotics | M5STACK

零基础入门级-桌面机械臂

全新系列 myPalletizer 大象码垛机械臂，再与M5STACK联合出品，全包裹轻量级四轴码垛机械臂，整体去鳍设计，小巧紧凑，便于携带。

myPalletizer 本体重量960g，负载250g，工作半径260mm；专为创客、教育设计，简单上手，丰富的扩展接口，开发无限可能；多款AI套装选择，机器视觉、复合机器人等，了解学习机器人前沿科技知识，启发创新思维。

去鳍设计，外观全包裹
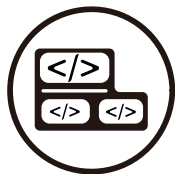
可装入背包的最优空间去鳍设计理念，颠覆传统连杆式教育四轴机械臂。

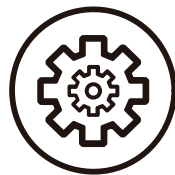### LED双显示屏

机械臂携带两块显示屏，便于拓展应用交互输出，玩法无限。

LEGO生态，兼容my系列所有配件
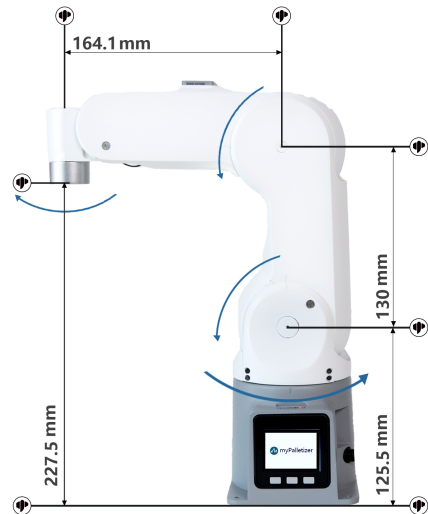
全球共享专利Lego孔设计，贯彻my系列硬件生态平台化理念，末端配件即插即用。

零基础，简单上手

轻松入门使用，图形化编程语言，让你轻轻松松开启机械臂使用之旅。

支持ROS生态

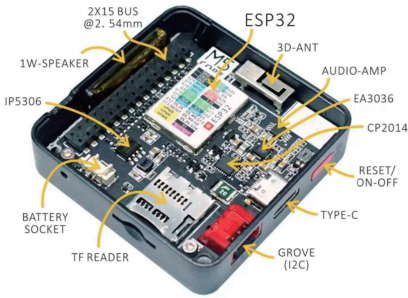采用全球主流机器人通讯框架ROS开发，并支持仿真，在虚拟环境中进行控制及算法验证，降低了对实验环境的要求，提高了实验效率。

myPalletizer 大象码垛机械臂 尺寸与工作范围图

164.1 mm

130 mm

227.5 mm

125.5 mm

有限半径 r=260mm

Jl：+160°

Jl：-160°

产品参数

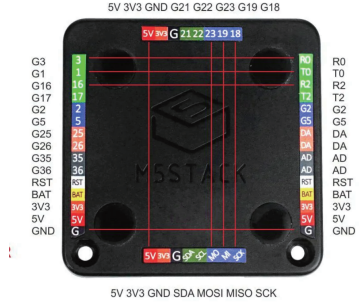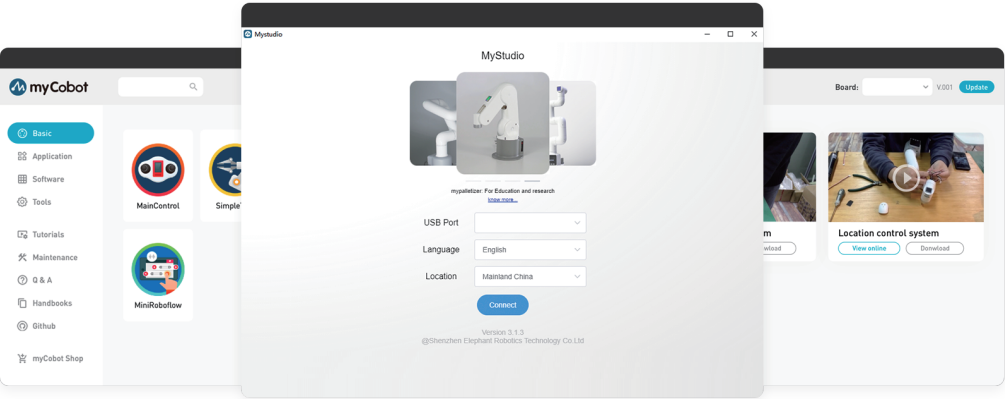| 名称	大象码垛机械臂
型号	myPalletizer 260 M5
自由度	4
重复定位精度	±2mm
负载	250g
自重	960g
工作半径	260mm
材料	光敏树脂SLA
充电电压	8~12V 5A
电机类型	高精度磁编码器伺服舵机
运动最大速度	120°/s
控制	M5Stack Basic
通信方式	USB / Type-C

引脚图

Basic 侧面引脚图1

Basic 侧面引脚图2

Atom 介绍图

Atom 功能引脚图

myStudio

myStudio 是一个一站式的机器人的使用平台。

myStudio 整合了【my系列】的软件资源及各类资料，主要功能为：
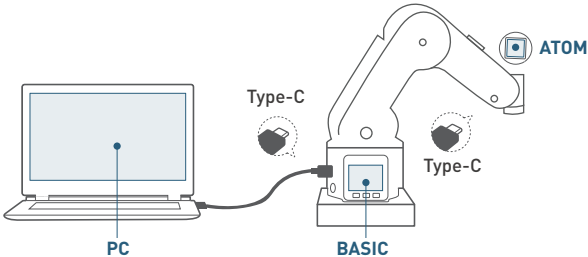
1) 下载更新固件；2) 查看机器人使用视频教程；3) 维护和维修方面的信息（如视频教程、Q&A等）

请下载最新版的 myStudio 进行使用

软件下载链接如下：

1、官网：https://www.elephantrobotics.com/download/

2、Github：https://github.com/elephantrobotics/MyStudio/

固件烧录

请使用 myStudio 软件烧录固件。可支持 myPalletizer 大象机械臂进行二次开发的开发环境有：myBlockly、RoboFlow、Arduino、ROS、python 等

开发使用环境	PC所需Library	Basic所需固件	Atom所需固件
默认程序 Default Program	N/a	mainControl	atomMain
myBlockly拖拽式编程 Visual Programming	myBlockly	Transponder	atomMain
RoboFlow 工业级可视化编程软件 Industrial Programming Software	RoboFlow库	Transponder	atomMain
Arduino 创客！Maker!	Arduino IDE + M5Stack Lib 库 + MycobotBasic Lib 库	各类程序自定义 All Exapmles	atomMain
API 开发软件接口 on Desktop	Python/ C+	Transponder	atomMain
ROS Development ROS 开发	ROS库	Transponder	atomMain
通信协议 – USB/TxRx0(G1/G3)	通信协议阅读 Read Protocol	Transponder	atomMain

myPalletizer产品配件

① 自适应夹爪

② 摄像头法兰

③ 吸泵

④ G型底座

大象机器人面向机械臂扩展应用，打造"my-系列"产品线。相关配件的上新，请关注官方淘宝店铺。

店铺名称：大象机器人

⚠ Warning

BEFORE USING MYPALLETIZER 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

⚠ Regarding the operation and secondary development of myPalletizer, please read and download the related files before using it.

  1、Gitbook　2、User Manual　3、Development Manual

Official Website：https://www.elephantrobotics.com/en/mypalletizer-en1/

myPalletizer

myPalletizer 260 M5

Zero Basic Entry Level-Desktop Robotic Arm

The new series of myPalletizer elephant palletizing robot arm, which is jointly produced with M5STACK, is a fully packaged lightweight four-axis palletizing robot arm. The overall finless design is compact and easy to carry.

myPalletizer body weight 960g, load 250g, working radius 260mm; specially designed for makers and education, easy to use, rich expansion interfaces,unlimited development possibilities; a variety of AI suit options, machine vision,composite robots, etc., learn about the cutting-edge technology of learning robots Knowledge inspires innovative thinking.

The fin design, the appearance is fully wrapped

The optimal space-removing fin design concept that can be loaded into a backpack subverts the traditional link-type educational four-axis robotic arm.

LED dual display

The robotic arm carries two display screens, which is easy to expand the interactive output of the application, and the gameplay is unlimited.

LEGO ecology, compatible with all my series accessories

The patented Lego hole design is shared globally, and the my series hardware ecological platform concept is implemented, and the end accessories are plug and-play.
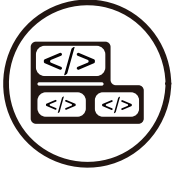
### Zero foundation, easy to get started

It is easy to get started and use, and the graphical programming language allows you to easily start the journey of using the robotic arm.

Support ROS ecology

It is developed using the global mainstream robot communication framework ROS,and supports simulation, control and algorithm verification in a virtual environment, which reduces the requirements for the experimental environment

myPalletizer - Size and Working Range Diagram

164.1 mm

130 mm

227.5 mm

125.5 mm

Effective radius r=260mm

JI:+160°

JI:-160°
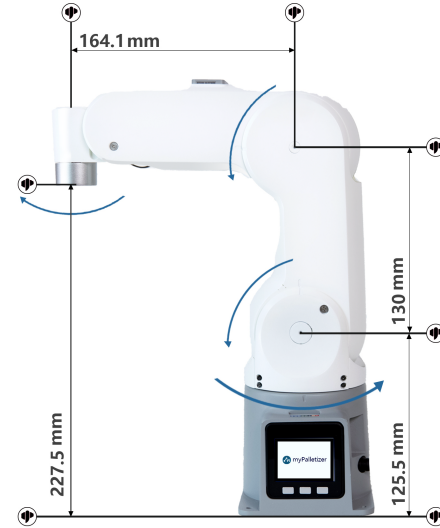
Parameter

| Name	myPalletizer
Model	myPalletizer 260 M5
Degree of Freedom	4
Repeatability	± 2mm
Payload	250g
Weight	960g
Working radius	260mm
Material	Photosensitive resin SLA
Power Input	8 ~ 12V 5A
Motor type	High precision magnetic encoder servo motor
Max speed	120°/s
Control	M5Stack Basic
Communication	USB / type-C

M5STACK Control Board Pin Map

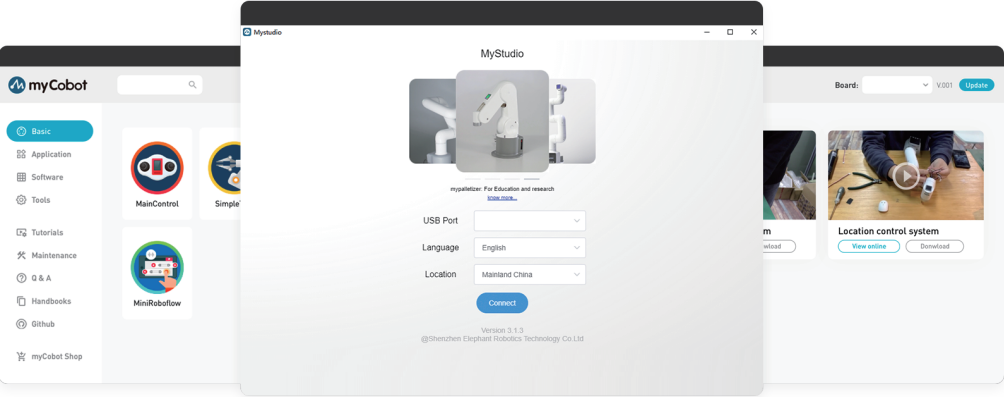M5 Basic side pin diagram1
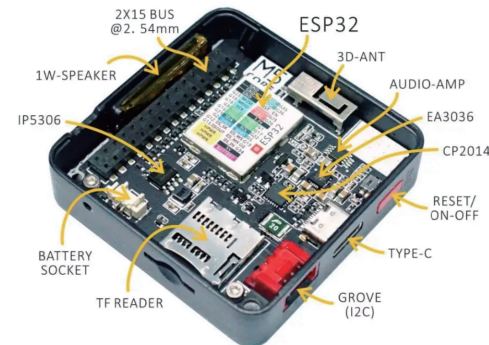
M5 Basic side pin diagram1

Atom diagram
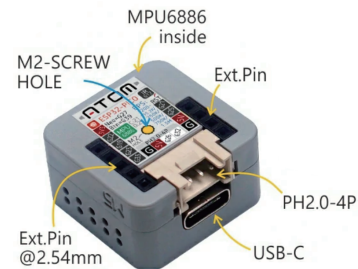
Atom pin diagram

myStudio

## myStudio is a one-stop platform for robots

myStudio integrates my series software and various materials.
The main functions of myStudio are: 1) Update the firmware; 2) Provide video tutorials on how to use the robot; 3) Provide maintenance and repair information (such as video tutorials, Q&A, etc.).

Please download the latest version of myStudio to use.

The download link is as follows:
Officail website: https://www.elephantrobotics.com/en/downloads/
Github: https://github.com/elephantrobotics/MyStudio/

Burn Table

Please use myStudio software to burn firmware.Development environments that support the secondary development of myPalletizer are: myBlockly, RoboFlow, Arduino, ROS, python, etc.
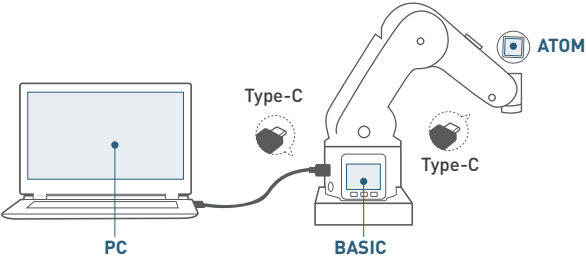
Development Environment	Library on PC	Basic Firmware	Atom Firmware
Default Program	N/a	mainControl	atomMain
Visual Programming	myBlockly	Transponder	atomMain
RoboFlow Industrial Programming Software	RoboFlow	Transponder	atomMain
Arduino Maker!	Arduino IDE + M5Stack Lib + MycobotBasic Lib	All Exapmles	atomMain
API on Desktop	Python/ C+	Transponder	atomMain
ROS Development	ROS	Transponder	atomMain
USB/TxRx0(G1/G3)	Read Protocol	Transponder	atomMain
BlueTooth	Read Protocol	BT_Transponder	atomMain
phoneApp	Mobile phone Android/iPhone	BT_Transponder	atomMain

myPalletizer Accessory

❶ Adaptive Gripper

❷ Camera Flange

❸ Suction Pump

❹ G Base

Elephant Robotics are targeted at robotic collaboration applications, making "my-series" product line. For new information about the accessories, Follow us on Shopify and Twitter.

Shopify: https://shop.elephantrobotics.com/

Twitter: @cobotMy

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)

舵机	
保修期限	保修服务
≤1个月	我司免费提供一个新舵机并承担寄送运费(仅一次)
1-3个月	我司免费提供一个新舵机，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 (M5 硬件)

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.

servo motor	
Warranty Period	**Warranty Services**
≤1 months	Elephant Robotics offers a free new servo motor and bear the freigh.
1-3 months	Elephant Robotics offers a free new servo motor, customs shall bear the freight.
≥3 months	Customers need to buy it themselves.
Electrical Parts (M5 Hardware)	
≤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.