myCobot

The World's Smallest 6-Axis Collaborative Robot

Elephant Robotics

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⚠ Warning

BEFORE USING MYCOBOT 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).

⚠ DANGER

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, CAREFULLY FOLLOW THESE INSTRUCTIONS.

myCobot

myCobot-500

World's Smallest 6-Axis Collaborative Robot

Elephant Robotics | **M5STACK**

myCobot is the world's smallest and lightest six-axis collaborative robot, jointly produced by Elephant Robotics and M5 Stack. With a weight of 850g, a payload of 250g and an arm length of 350mm, myCobot is compact but powerful, can carry on the secondary development according to the demands of users to achieve personalized customization. myCobot can not only be matched with a variety of end effectors to adapt to different kinds of application scenarios but also support secondary development of multi-platform software to meet the needs of various scenarios such as scientific research and education, smart home, light industry and commercial applications.

Unique industrial design, extremely compact

myCobot is an integrated modular design and only weighs 850g which is easy to carry. Its overall body structure is compact with less spare parts and can be quickly disassembled and replaced to realize plug and play.

High configuration & Equipped with 2 Screens

myCobot contains 6 high-performance servo motors with fast response, small inertia and smooth rotation. The body carries two display screens supporting fastLED library to show the expanded application scene more easily and clearly.
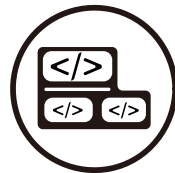
Lego Connector & Thousands of M5 Ecological Application

The base and end of myCobot are equipped with Lego Connector, which is suitable for the development of various miniature embedded equipment. Its base is controlled by M5 Stack Basic, and thousands of application cases can be use directly.

Bloky Programming & Supporting Industrial ROS

Using UI Flow visual programming software, programming myCobot is simple and easy for everyone. You can also use RoboFlow, software of industrial robots from Elephant Robotics, supporting multiple functional modules Arduino + ROS open source system.
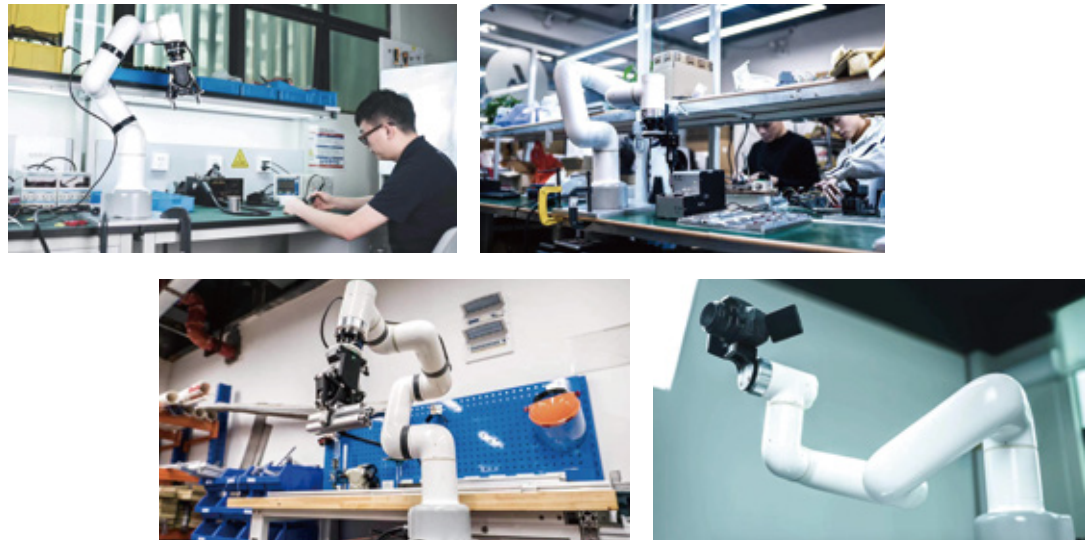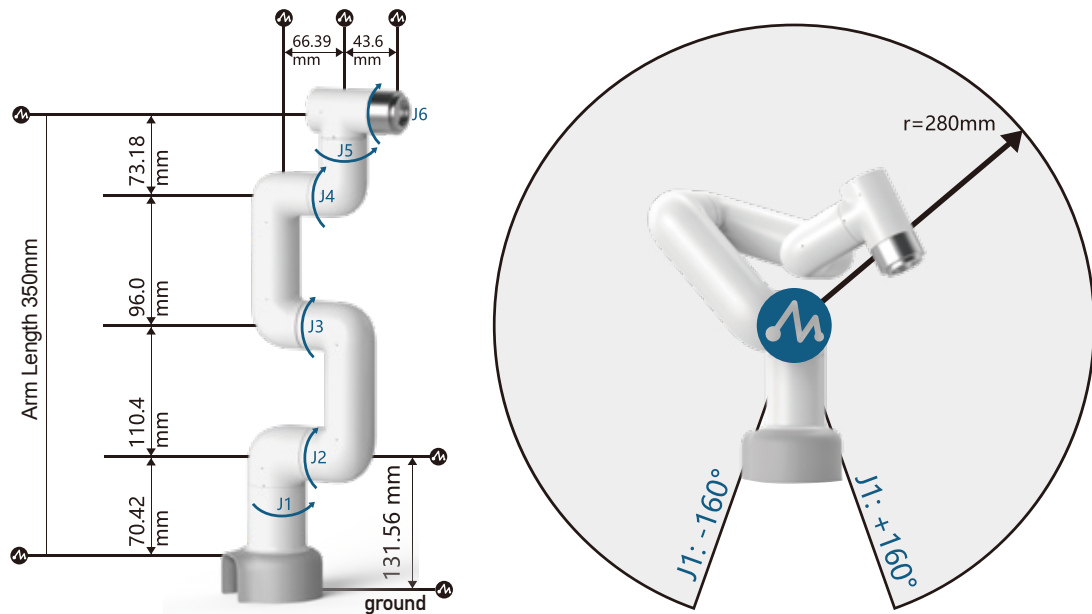
Track Recording & Learn by hand

Get rid of the traditional point saving mode, myCobot supports drag trial teaching to record the saved track and can save up to 60mins different tracks, which makes it easy and fun for new players to learn.

myCobot - Design Prototype - Elephant Robot®C Series Robot

The design prototype of myCobot is from All-in-one Robot launched by Elephant Robot in China in 2018. As the first integrated collaborative robot in China, it has won the 2019 CAIMRS Industrial Robot Innovation Award and 2019 High-tech Robot Annual "Innovation Technology Award", and has been also sold to more than 30 countries at home and abroad, receiving unanimous praise and recognition from the factories of the world's top 500 enterprises.

myCobot - Size and Working Range Diagram

66.39 mm 43.6 mm

J6

J5

73.18 mm

J4

Arm Length 350mm

96.0 mm

J3

110.4 mm

J2

J1

70.42 mm

131.56 mm

ground

r=280mm

J1: -160°   J1: +160°

Parameter

Degree of Freedom	6
Payload	250g
Arm span	350mm
Working radius	280mm
Repeatability	±0.2mm
Weight	850g
Power input	8V, 5A
Working temp.	-5 ~ 45°
Communication	USB/Type-C

Sub-Control borad parameters	
Model	M5 Atom
Micro-processor	ESP32, 240MHz Dual-core 520KB SRAM
Flash	4MB
Installation	Behind Joint 6
LED Display	WS2812C 2020 X25
Software	Not open source, Firmware Burn

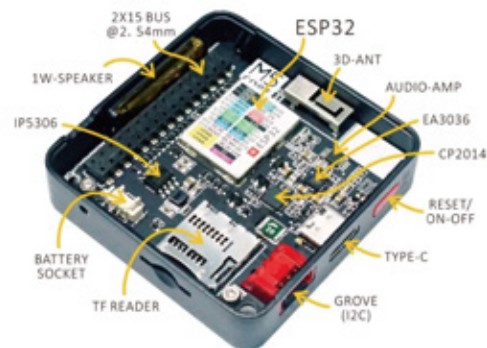| Main control board parameters	
Model	M5 Basic
Micro-processor	ESP32, 240MHz dual core, 520KB SRAM
Flash	16MB
wireless	2.4g 3D antenna Bluetooth
Installation	Center of Base
Display	320x240 Full-color TFT LCD Brightness:853nit
Speaker	1W-0928
IO Interface	PIN (G1，G2，G3，G16, G17, G18, G19, G21, G22, G23, G25, G26, G35, G36)
Software	Built-in track recording Built-in correction procedures Arduino UIFlow RoboFlow

M5 Control Board Pin Map

M5 Basic side pin diagram1

M5 Basic side pin diagram1

Atom diagram
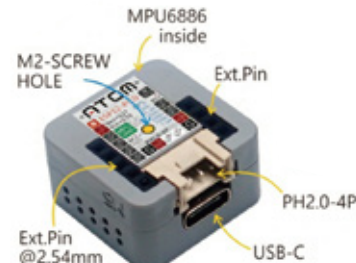
Atom pin diagram

Warranty Terms

- 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.

Sever motor

Warranty Period	Warranty Services
≤1 months	Elephant Robotics offers a free new sever motor and bear the freigh.
1-3 months	Elephant Robotics offers a free new sever motor, customs shall bear the freight.
≥3 months	Customers need to buy it themselves.

Electrical Parts (M5 Hardware)

Warranty Period	Warranty Services
≤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

Warranty Period	Warranty Services
≤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.

As for the operation of myCobot, please download the related User manual from the official website first, and then read it carefully before using it.
Download Link: https://www.elephantrobotics.com/myCobot/