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Commercial 6-Axis Collaborative Robot

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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)

 **myCobot Pro**
myCobot Pro-320

Commercial
Economic

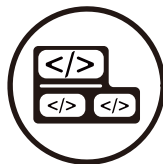




Commercial 6-axis collaborative robot

myCobot Pro is a commercial 6-axis robot developed by Elephant Robotics, compact but powerful, simple to operate, and has a weight of 3kg, a payload of 1kg and a working radius of 320mm.

With three mainly strengths and characteristics of Usability, Security and Economy, myCobot Pro is the cost-effective choice of automated production, can quickly deploy on the production line and entail human-robot collaboration in close proximity safety, effectively reducing cost and increasing efficiency for enterprises.



Powerful Performance & Equipped with 2 Screens

Coupled with Brushless DC Industrial Motor, can achieve $\pm 0.3\text{mm}$ repeated positioning accuracy
Carries two display screens supporting M5STACK Ecological Application, effectively expand your collaborative application space



Integrated Modular Design & Safe Cooperation

The compact design allows it to make full use of the production space and perfectly blend into the production environment
Based on the efficient and exact collision detection algorithm, myCobot pro can work safely with people



Open Resource, Easy to Operate and Programming

Operators with no programming experience can quickly use the robot by free move and UIFlow visual programming
Supports various of development environments such as ROS, moveit and RoboFlow developed by Elephant Robotics.



Economical & High Cost Performance

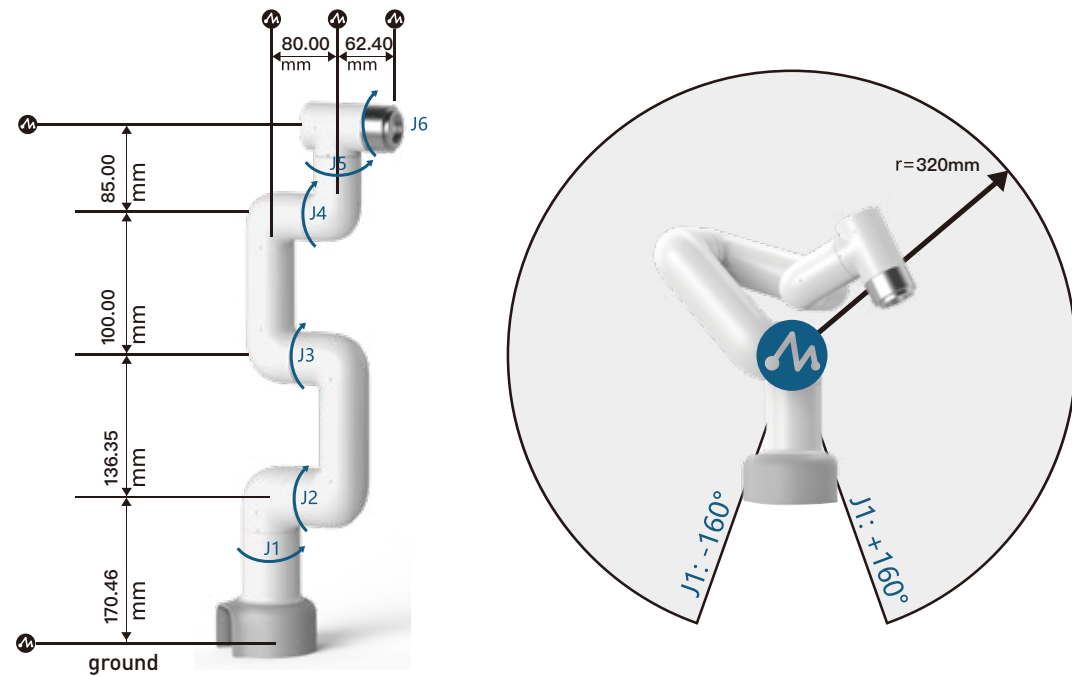
With standard 8-hour work, myCobot pro is a perfect choice for high-repetitive, standard assembly line work
As a cost-effective 6-axis commercial robot arm, it is suitable for business that require both low cost and high performance to cut down cost and boost efficiency

myCobot Pro - Design Prototype - Elephant Robot®C Series Robot

The design prototype of myCobot Pro 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 Pro - Size and Working Range Diagram

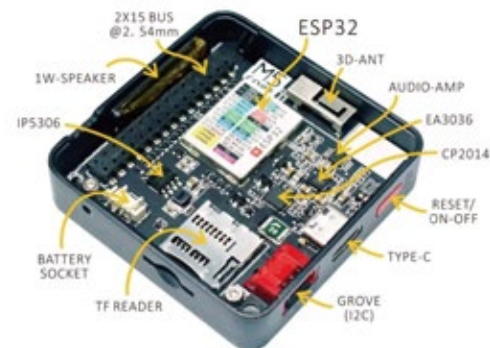


Parameter

Product	myCobot Pro
model	mycobot Pro-320
payload	1kg
reach	320mm
weight	3kg
repeatability	±0.5mm
DOF	6
IP Level	IP42
Material	Industrial Nylon
Working Condition	0~50°C
Adapter power supply	110~220V AC
Joints range	J1 : +/- 170°
	J2 : +/- 160°
	J3 : +/- 160°
	J4 : +/- 160°
	J5 : +/- 170°
	J6 : +/- 175°
Noice	<85 dB
Power Supply	24V 5A; 120W
Max End-speed	0.7m/s

Tool IO	12V/ GND Digital-INPUT X2 Digital-OUTPUT X2 485Bus AB
Base IO	Digital-INPUT x3 Digital-OUTPUT x3
Communication (Base)	Ethernet Port typeC-Port
Max Rotational Speed	180°/s
Servo-Gear Set	Alloy Steel
Servo-Encoder	12 Bit
Max Rotational Speed	180°/s
Software	RoboFlow
	uiFlow
	myStudio
	ROS
	Movelt Python

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 myCobot's 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.

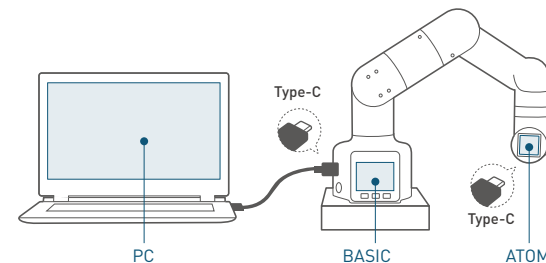
The download link is as follows:

Official website: <https://www.elephantrobotics.com/myCobot/>

Github: <https://github.com/elephantrobotics/MyStudio/>

Burn Table

Development environments that support the secondary development of myCobot are: UIFlow, RoboFlow, Arduino, ROS, python, etc.



Development Environment	Library on PC	Basic Firmware	Atom Firmware
Default Program	N/a	mainControl	atomMain
Visual Programming	UIflow	UIflow	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