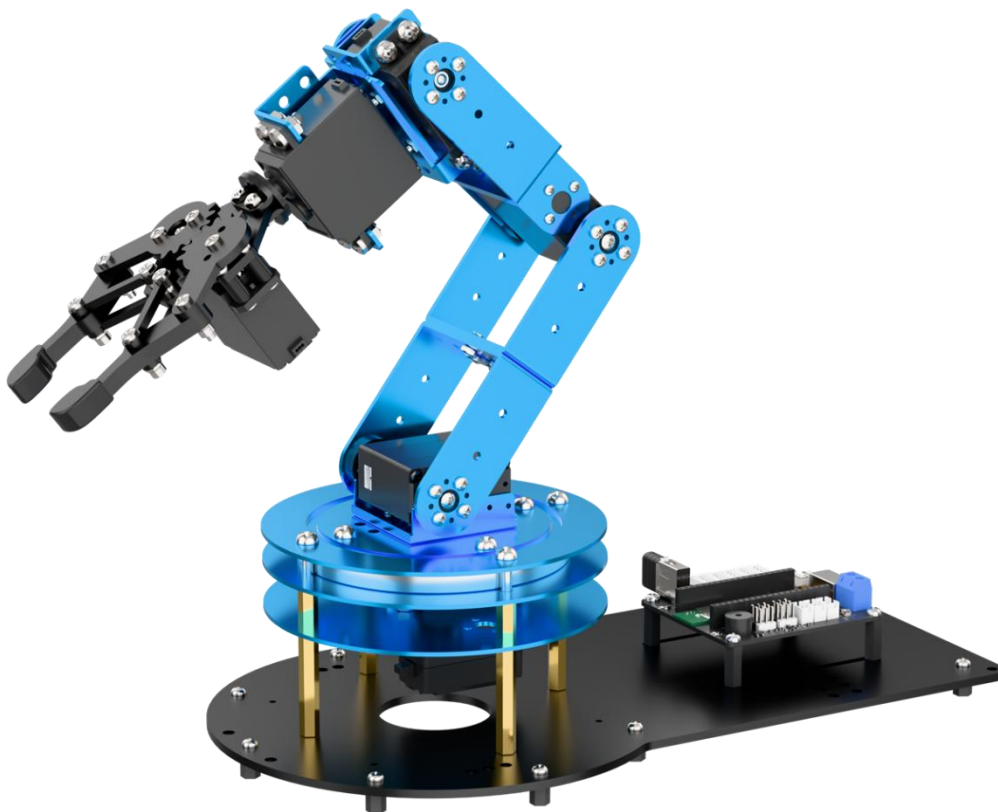


1.1 Introduction to LeArm

1. Product Description























LeArm is a 6-DOF robotic arm featuring a modular controller design that allows seamless switching between ESP32, STM32, and 51 controllers. Built-in Bluetooth and support for multiple communication methods offer versatile connectivity. Equipped with high-precision digital servos and an integrated inverse kinematics algorithm, LeArm enables precise motion control by simply inputting target coordinates.

Designed for versatility, LeArm supports multimodal expansion with add-ons such as vision modules, voice modules, and various sensors. It can also be extended with a motorized slider or conveyor belt, unlocking a wide range of creative applications including AI-powered visual and voice interaction, mobile grasping, and intelligent object handling.




















2. Packing List

◆ LeArm Open Source Packing List

 Rotation base x1 set	 Base board x1	 Long U-shaped bracket x3	 Small U-shaped bracket x1	 Multi-functional bracket x2	 Side bracket x1	 Bearing x1	 Metal gripper (with servo and M3*10 screws)	 LFD-06 servo x2	 LDX-218 servo x2	 LD-1501MG servo x1	 Metal main servo horn x1
 Servo cable x5 (300mm)	 7.5V 6A DC power adapter	 Wireless controller+Controller receiver	 Data cable (200mm)	 Type-C cable (1000mm)	 Screwdriver	 Accessories pack	 Cable organizer	 Open-source controller	 User manual		

◆ Secondary Development Kit for LeArm Open Source(Need to be purchased separately)

 Glowing ultrasonic sensor	 Ultrasonic sensor bracket	 Obstacle avoidance sensors	 Touch sensor	 Acceleration sensor	 Sound sensor	 OLED display	 4Pin wires (200mm+300mm)	 WonderMV Vision module	 32GB SD card	 Card reader	 Waste cards (40*40mm)
 Traffic signs	 Number cards	 Tags (40*40mm)	 EVA blocks (40*40mm)	 WonderEcho AI voice interaction module							

3. Usage Precautions

Important Safety Instructions for Use and Storage:

- ◆ This product contains small parts and sharp pins, and is not suitable for children under 12 years old.
- ◆ Minors should only use this product under adult supervision and guidance.
- ◆ The product includes small and sharp components—do not swallow or apply pressure to avoid injury.
- ◆ As the product contains conductive components, do not touch it with metal objects while powered on.
- ◆ Do not forcibly move the robotic arm once powered on, as this may damage the servos.
- ◆ When not in use for an extended period, store the product in a cool, dry place.

◆ If the robot is equipped with servos and is in operation, and the servo output shaft cannot rotate smoothly due to external resistance, stop the operation immediately. Continued resistance can cause the servo to stall, leading to a sharp rise in current, which may result in serious damage or even burning of the servo.

◆ **Damage caused by stalling, overloading, or incorrect installation is not covered under warranty.** Please follow all operational guidelines carefully and avoid overloading to ensure the proper and safe performance of both the robot and its servos.

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