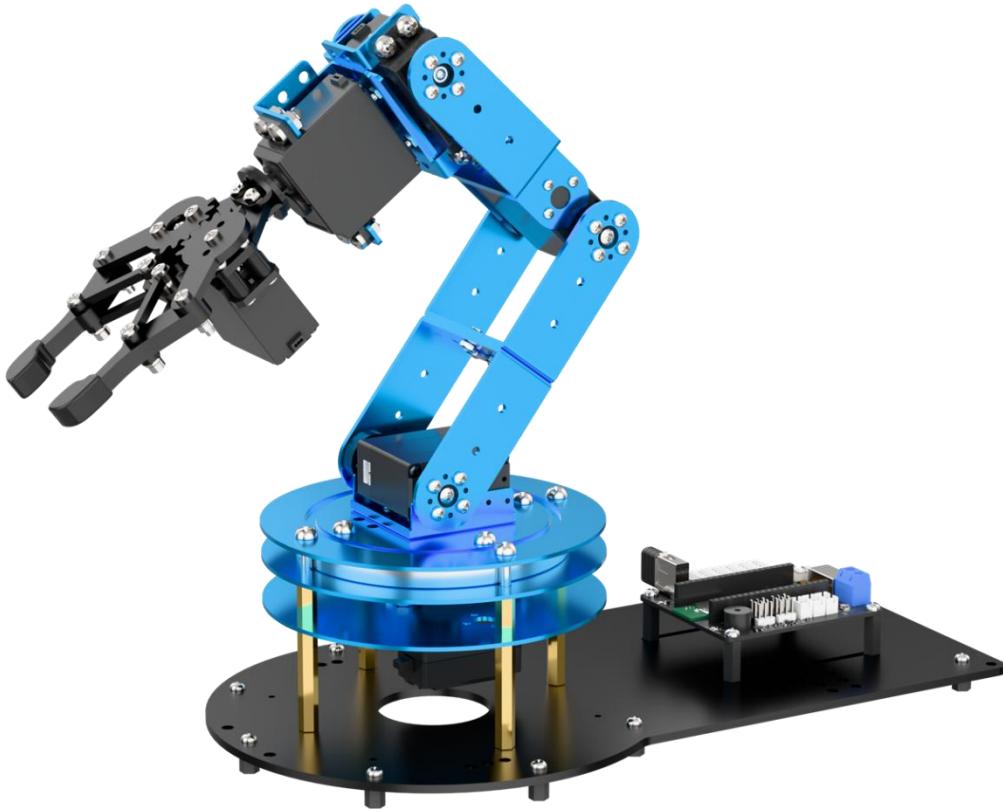


## 1.1 Introduction to LeArm

### 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

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

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.

## 4. Copyright Statement

This manual is the intellectual property of Shenzhen Hiwonder Technology Co., Ltd. No organization or individual may excerpt, copy, translate, or distribute any part of this manual without prior authorization.

Any unauthorized use of this reference material will be considered a violation of copyright, and our company reserves the right to pursue legal action.

## 5. Disclaimer

The products described in this manual (including hardware, software, etc.) are provided "as is." While every effort has been made to ensure the accuracy of the content at the time of writing, errors or omissions may still exist. The materials are reviewed periodically, and we welcome users to provide feedback and suggestions for improvement.

As product content may change with version updates, please contact our

customer service team when placing an order to obtain the most up-to-date product information.

Furthermore, unless explicitly stated by Hiwonder Technology, we are not responsible for any losses resulting from product malfunction or damage caused by use in extreme or unintended scenarios.