LewanSoul LeArm

LewanSoul LeArm Robotic Arm Kit User Manual

Model: LeArm

Introduction

The LewanSoul LeArm Robotic Arm Kit is an elementary 6DOF desktop robot arm outfitted with 6 high-quality digital servos. It is capable of remote-control grasping, object transportation, custom actions, graphical programming, and more. It serves as the ideal platform for building and showcasing creative projects and for learning about bionic robotics.

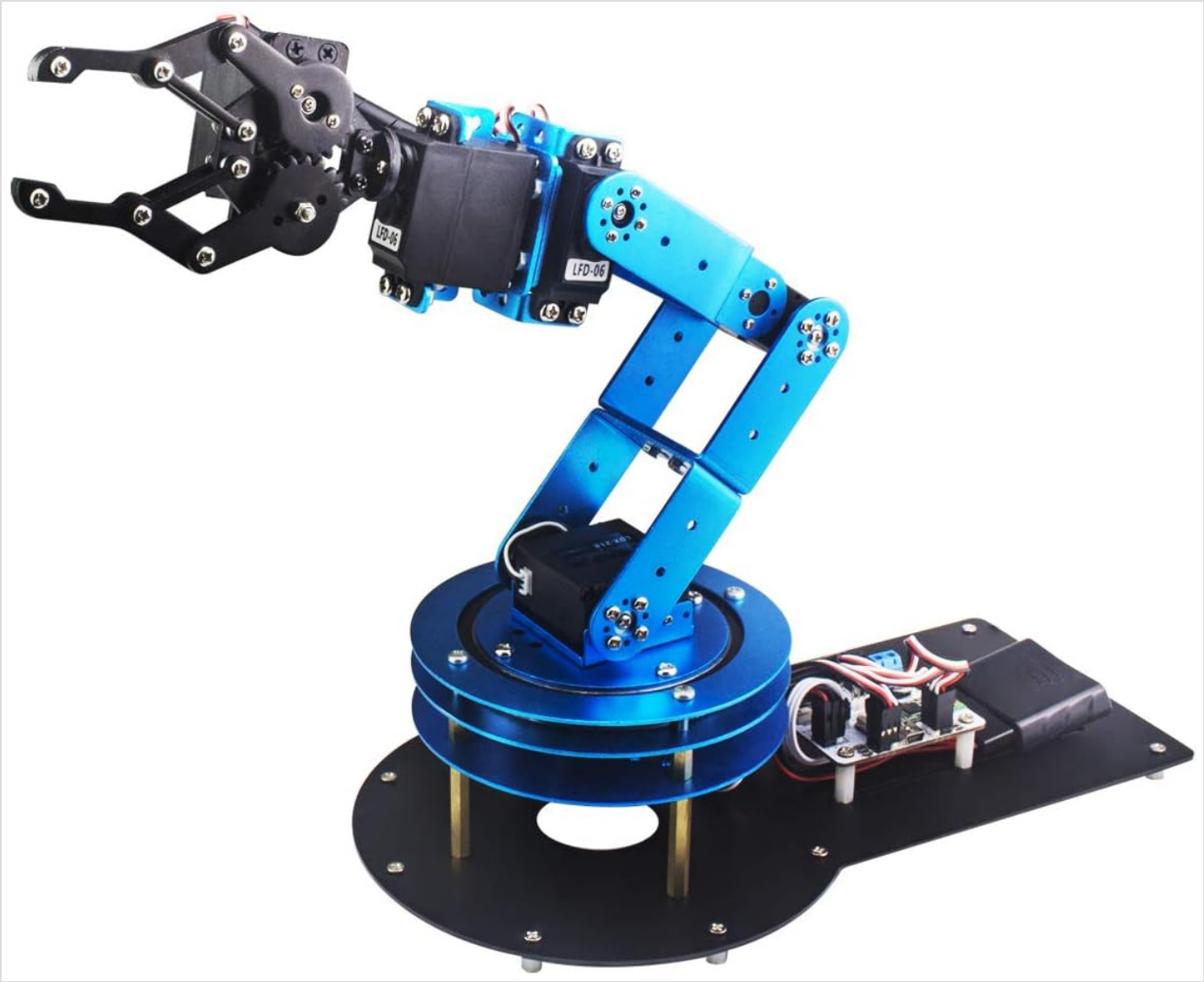


Figure 1: Fully assembled LewanSoul LeArm Robotic Arm Kit.

Product Components

The LeArm kit includes all necessary components for assembly and operation. Key components are:

- **LeArm Robotic Arm:** 6-degrees-of-freedom arm with mechanical claw.
- **Servos:** Includes LDX-218 Large Torque Digital Servos, LFD-06 Anti-blocking Servos, and LD-1501MG Digital Servos.
- **Controller:** 6-channel Bluetooth 4.0 Servo Controller.
- **Power Adapter:** For powering the robotic arm.
- **Wireless Handle and Receiver:** For remote control.
- **Metal Brackets and Base:** High-quality aluminum alloy construction with industrial-grade bearings.
- **Fasteners and Tools:** Various screws, nuts, columns, and a screwdriver for assembly.

Figure 2: Detailed view of the LeArm's powerful hardware components.

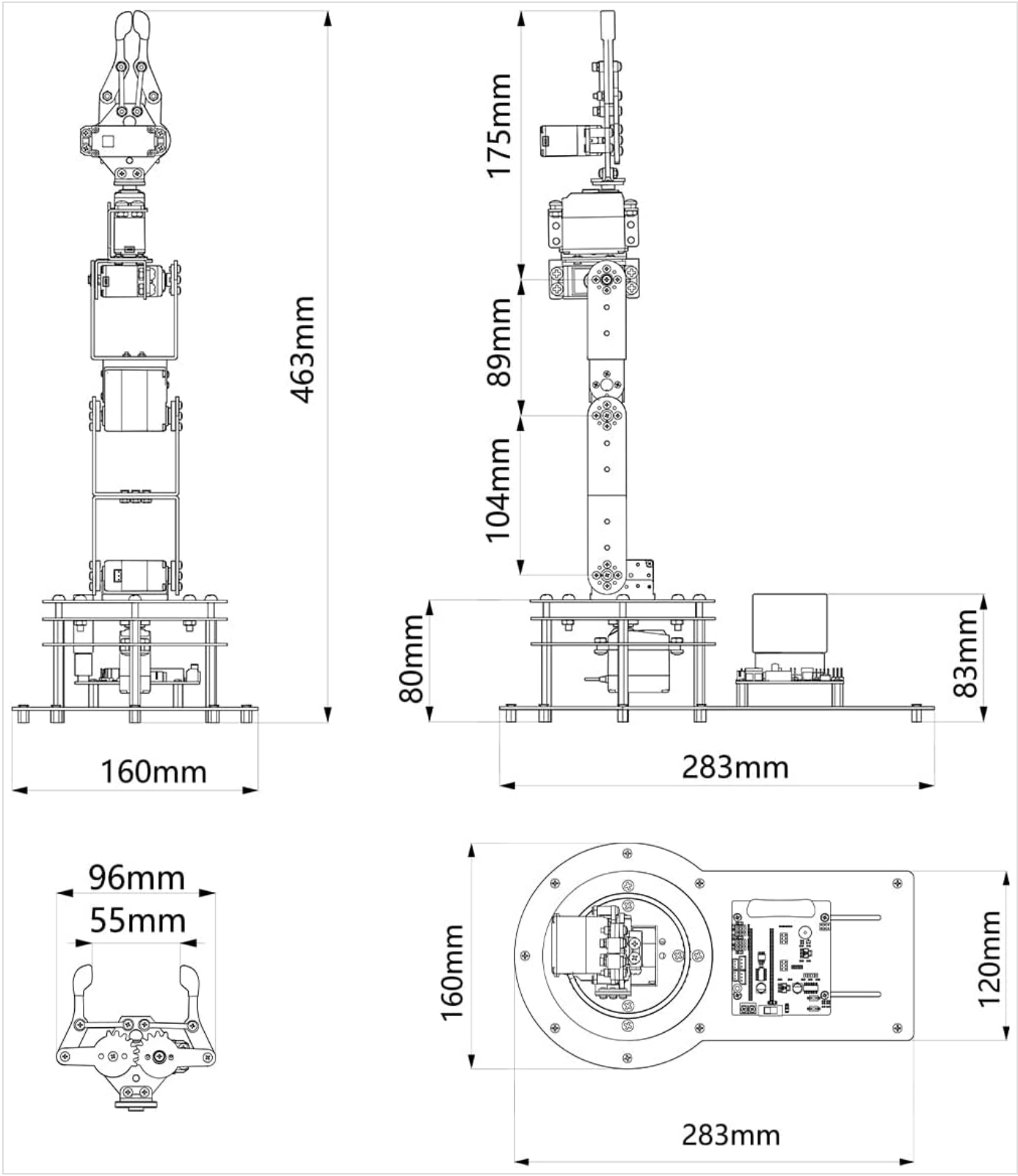


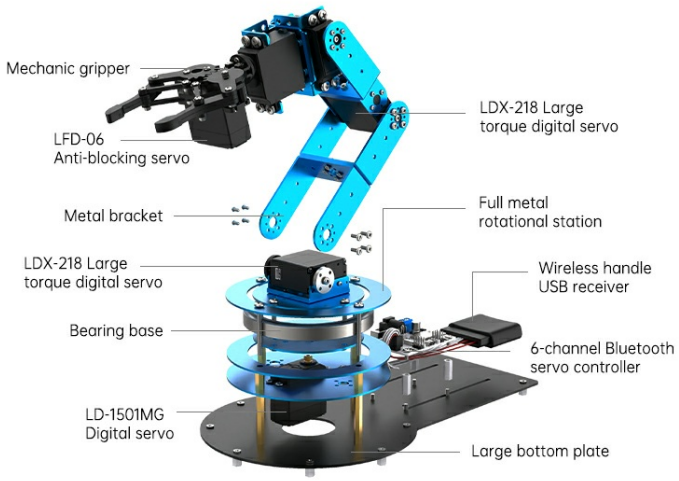
Figure 3: All components included in the LeArm Robotic Arm Kit.

Setup and Assembly

Detailed assembly instructions are provided in the official Installation Manual. It is highly recommended to follow the step-by-step guide for proper setup.

- **Download Manuals:**
  - Installation Manual (PDF)
  - User Manual (PDF)

- **Assembly:** The robotic arm is constructed from exquisite metal bracket. Ensure all screws and connections are secure. The base is fortified with high-torque servos and industrial-grade bearings, guaranteeing exceptional stability.
- **Servo Connection:** Connect the servos to the 6-channel Bluetooth servo controller as per the manual.
- **Power Connection:** Connect the power adapter to the controller.



Product Dimension	11.2*4.7*18.3in(285*120*465mm)
Product Weight	2.73Lb(1.24kg)
Material	Aluminum Alloy
DOF	6DOF (5DOF + Gripper)
Power Supply	7.5V 3A DC Power Adapter
Controller System	6 Channels Servo Controller
Servo	LDX-218, LD-1501MG, LFD-06
Control Method	PC,APP,Wireless Handle
Communication	Bluetooth, USB
Package Size	13.2*11.4*3.4in (335*290*85mm)
Package Weight	4.4Lb(2kg)

Figure 4: Illustration of the LeArm's structural design and anti-blocking servo mechanism.

Figure 5: The 6-channel Bluetooth 4.0 Servo Controller.

Operating the Robotic Arm

The LeArm offers multiple control methods for versatile operation:

- **PC Software Control:** Utilize the dedicated PC software for precise control and graphical programming. This allows for custom actions and detailed manipulation.
- **APP Control:** Control the arm via a mobile application on your smartphone (Android/iOS).
- **Wireless Handle Control:** Use the included wireless handle for intuitive remote control.

Figure 6: PC Software Control interface.

Figure 7: Mobile APP Control in action.

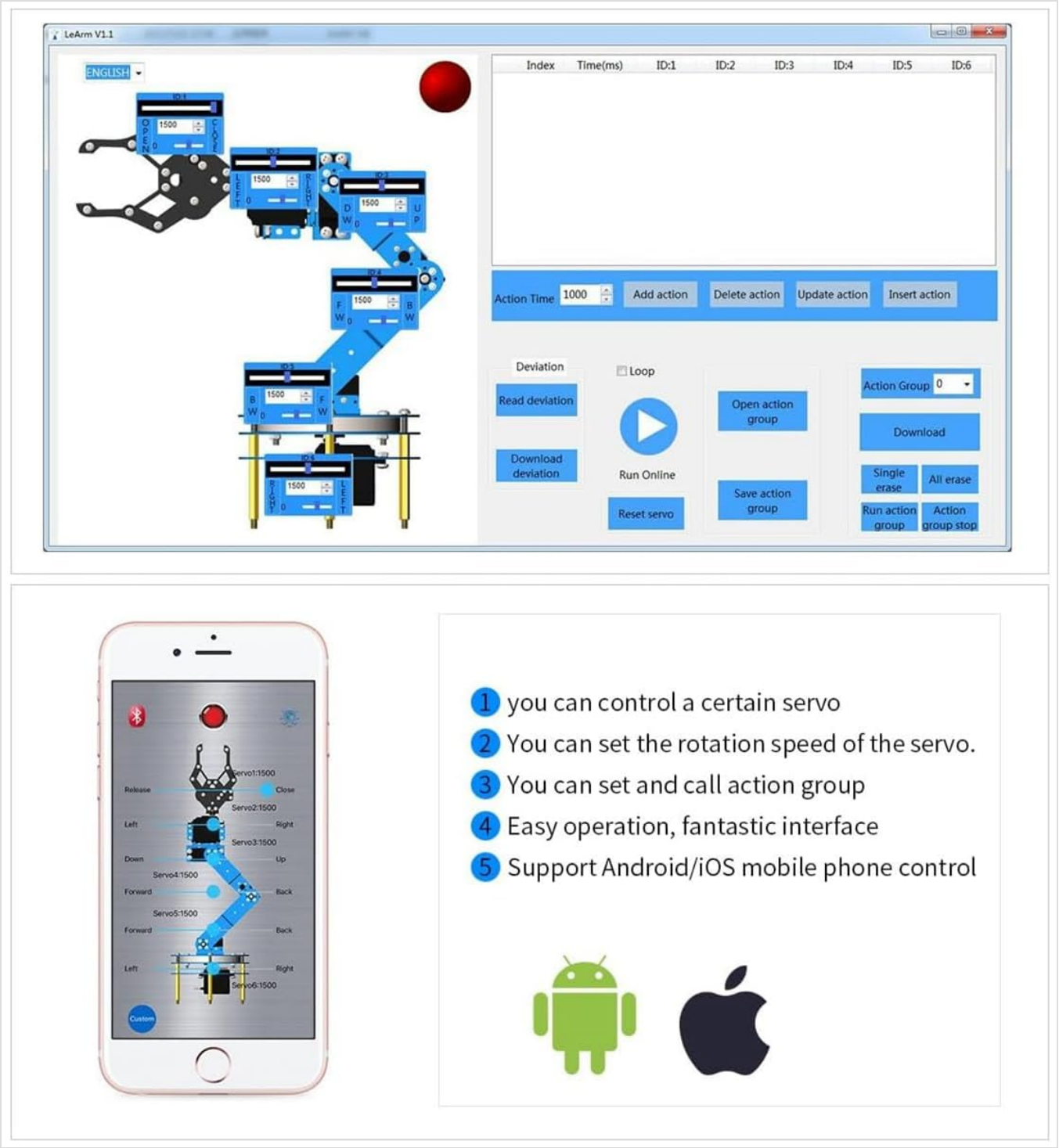


Figure 8: Wireless Handle Control for remote operation.

The LeArm is capable of remote-control grasping, object transportation, and executing custom actions. It serves as an ideal platform for building and showcasing creative projects and for learning about bionic robotics.

Official Product Videos

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Video 1: Demonstrates the LeArm's ability to learn and build robot structures, highlighting its use for technology and programming. This video shows the arm picking up and moving colored blocks.

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Video 2: Showcases the programmable robotic arm in a festive setting, demonstrating its movement and interaction with objects, emphasizing the fun aspect of programming.

Maintenance

To ensure the longevity and optimal performance of your LeArm Robotic Arm, regular maintenance is recommended:

- **Cleaning:** Keep the robotic arm and its components clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- **Joint Inspection:** Periodically check all joints and connections for any looseness. Tighten screws as needed.
- **Servo Care:** Avoid applying excessive force to the arm, as this can strain the servos. The anti-blocking servos are designed to extend lifespan, but proper handling is still crucial.
- **Storage:** When not in use, store the robotic arm in a dry, cool place away from direct sunlight and extreme temperatures.

Troubleshooting

If you encounter issues with your LeArm Robotic Arm, consider the following common troubleshooting steps:

- **Power Issues:** Ensure the power adapter is correctly connected and providing sufficient power. Check for any loose power cables.
- **Servo Malfunction:** If a servo is not responding, check its connection to the controller. Ensure it is not jammed or overloaded. The anti-blocking servos have gear clutches to prevent damage, but persistent issues may require inspection.
- **Control Connectivity:**
  - **PC Software:** Verify the software is installed correctly and the arm is properly connected (e.g., via USB or Bluetooth).
  - **APP Control:** Ensure Bluetooth is enabled on your device and the app is correctly paired with the arm.
  - **Wireless Handle:** Check that the wireless receiver is connected to the controller and the handle has fresh batteries.
- **Movement Inaccuracies:** Recalibrate the arm if movements are not precise. Refer to the User Manual for calibration procedures.
- **Software Compatibility:** Ensure your operating system meets the minimum requirements for the PC software.

For more detailed troubleshooting or persistent issues, please refer to the comprehensive User Manual (PDF) or contact LewanSoul customer support.

Specifications

Feature	Detail
Product Dimensions	18.31 x 4.7 x 11.22 inches
Item Weight	4.2 pounds
ASIN	B074T6DPKX
Item Model Number	LeArm
Manufacturer Recommended Age	14 years and up
Manufacturer	Hiwonder
Degrees of Freedom (DOF)	6DOF (5DOF + Gripper)
Material	Aluminum Alloy

Control Methods	PC, APP, Wireless Handle
Communication	Bluetooth, USB

Figure 9: Detailed dimensions of the LeArm Robotic Arm.

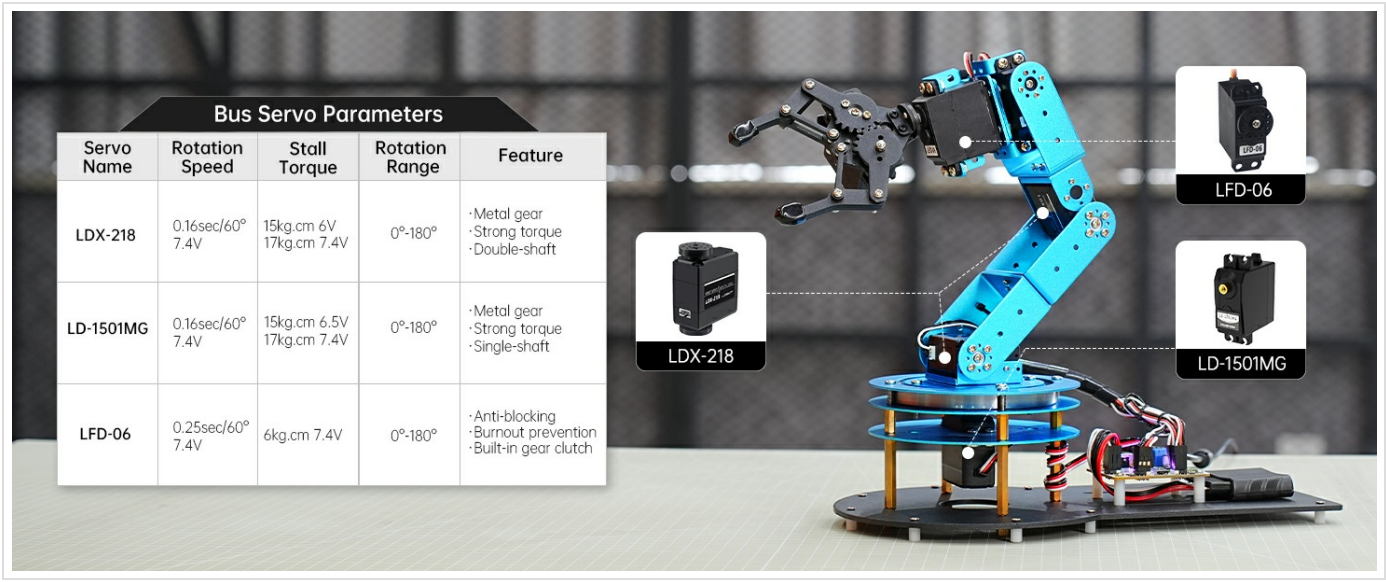

Figure 10: Bus Servo Parameters for the LeArm.

Support

For further assistance, technical support, or inquiries, please visit the official LewanSoul website or contact their customer service. LewanSoul is dedicated to providing satisfying pre and after-sales support.
You can also find additional resources and tutorials on theLewanSoul Store on Amazon.