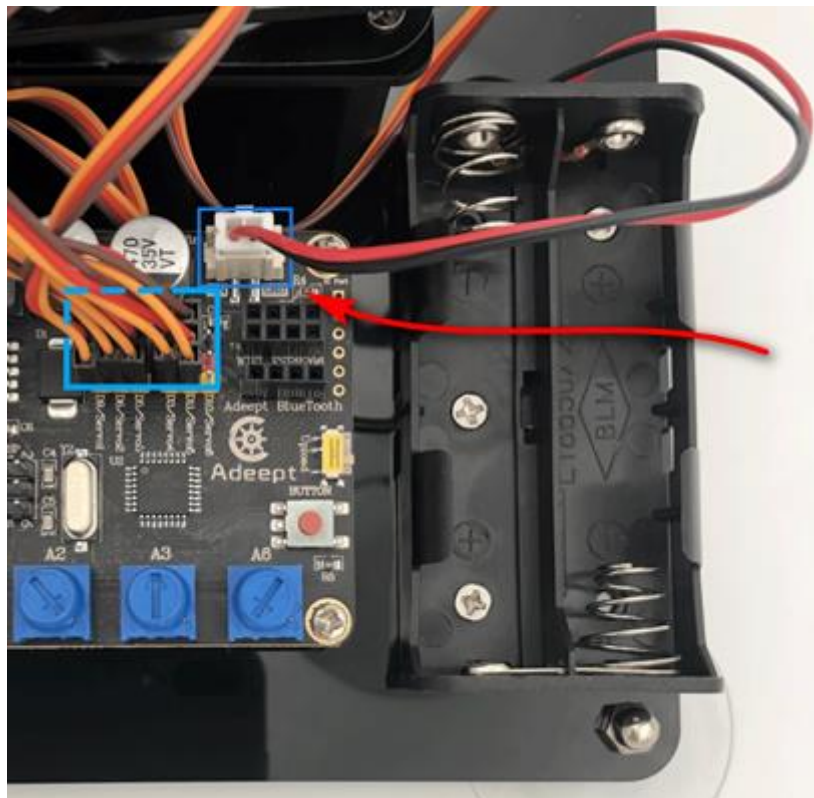# Test Adeept Arm Drive Board, Servo and etc.

1. Refer to the assembly of the base plate in the "Assembly of the Robotic Arm": Assemble the Pedestals (including fixed drive plate and battery box).

2. Connect the connector of the battery box power cable to the power interface of the driver board, as shown in the figure:

3. For Windows computer users, please find the "CH341SER_Windows.EXE" file under the file path: ".\software package\Adeept driver\", and double-click to run and install the serial port driver. Then open the installed Arduino IDE(software).
   (For the installation of non-Windows systems, please refer to the corresponding installation instructions in the package provided by us, for details, Please refer to "(3)-2 Install CH341SER driver" in Section 5 of the " _4 Building the Arduino Development Environment " chapter))

4. Click the menu bar of Arduino IDE interface: Tools - > port, check the existing port of the computer and remember it. Then, the USB end of micro USB cable is connected to the USB interface of the computer, and the micro interface is

connected to the driver board, as shown in the figure:
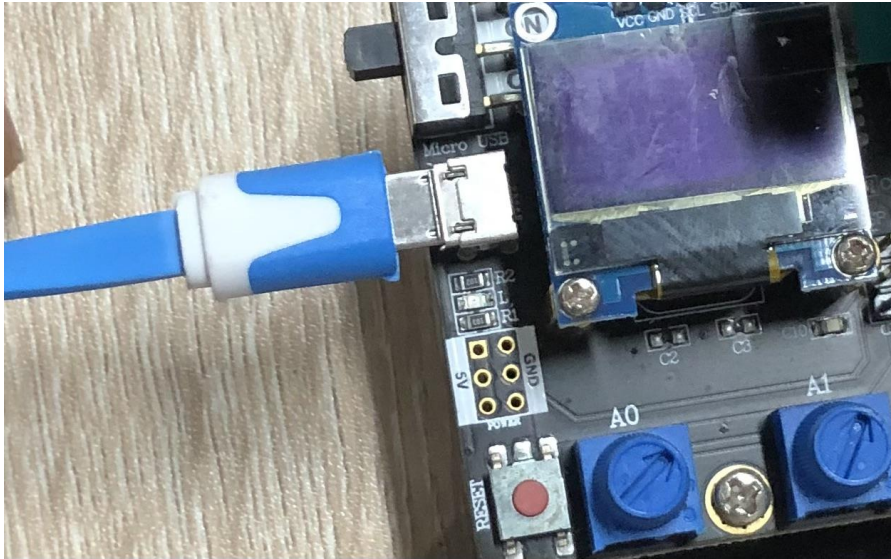
At this time, please click the menu bar of Arduino IDE interface again: Tools - > port to check whether the computer adds a new port to insert the device. If a new port appears, proceed to step 3.5.

If there is no new port (except the existing port), please plug and unplug the micro USB cable again or try another cable. If there is no new port, please contact the merchant to help you confirm whether the driver board hardware is damaged during transportation or due to other non-user reasons, and replace the product for you.
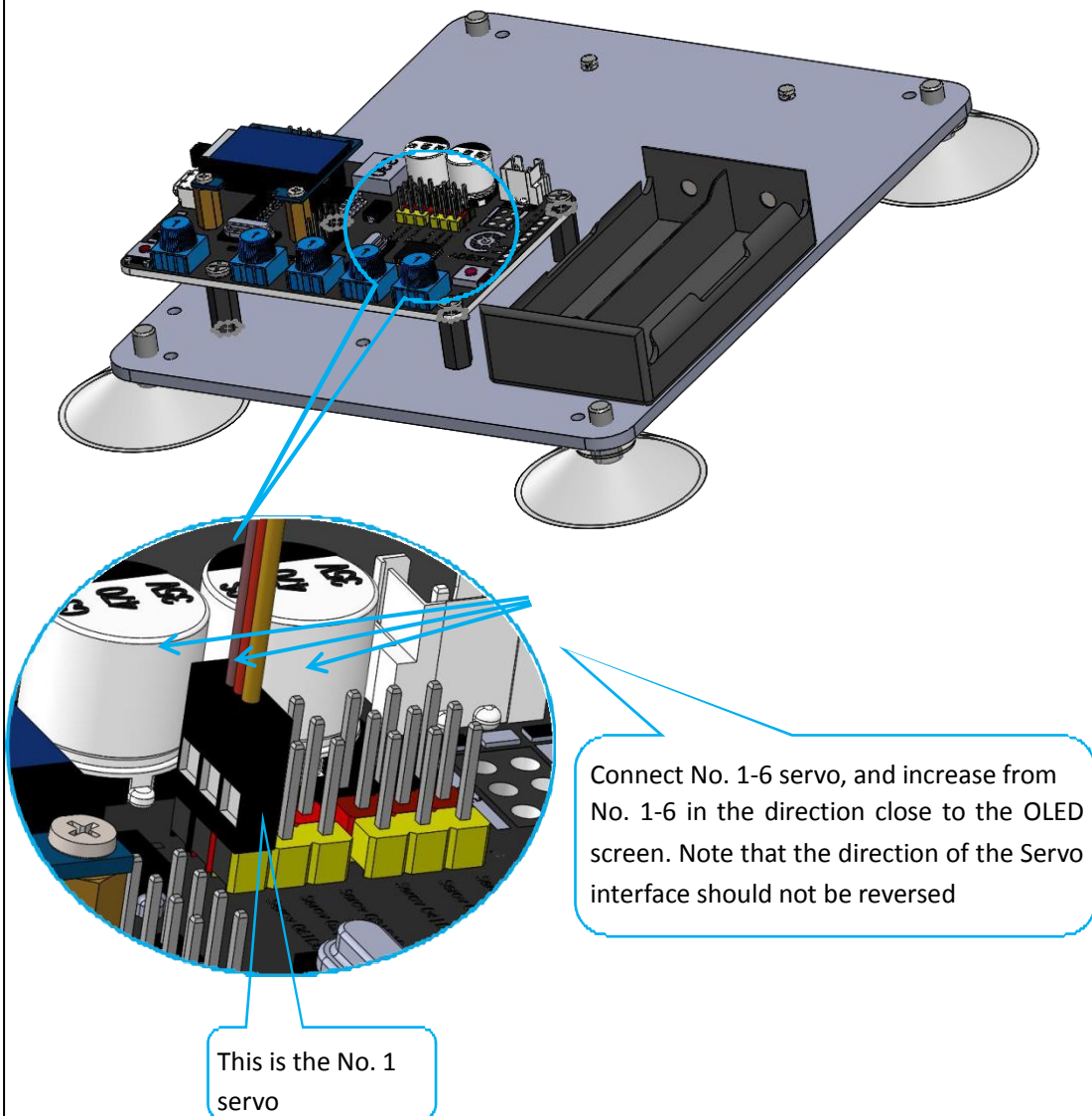
5. Unplug the USB end of the micro USB cable from the USB interface of the computer, and simply fix any rudder disc of each steering gear to the anti-skid teeth of the steering gear output shaft (the rudder disc cap has teeth connected with the anti-skid teeth, which can be easily connected to one after rotating and aligning), as shown in the figure:

Then, connect the connecting wire connectors of all 6 steering gears (including one spare steering gear) to the drive board (pay attention to the correct connection, and the connection line of the ervo is shown in the figure below)

Connect six servos to the Adeept Arm Drive Board.

For convenience to read, only one end of the servo power cable is shown here.

Connect No. 1-6 servo, and increase from No. 1-6 in the direction close to the OLED screen. Note that the direction of the Servo interface should not be reversed

This is the No. 1 servo

(please remember to disconnect the micro USB cable from the computer first to prevent damage to the driver board caused by possible short circuit operation)

You can see the right side of the connection position, such as "D11 / servo5", where D11 represents pin 11 of the drive board, it corresponds to "myservo.attach (11);" in the Arduino code of the test.

6. Find the Package of Documentation (Reference: Chapter: "_4 build Arduino development environment", step 2 under subsection (3) under subsection 5) that we provide to the user. Open the directory in sequence: "Code" -> "_5 Unpacking_test_code" -> "Unpacking_test_code". Then select the code file "Unpacking_test_code.ino" and Double click with the left mouse button or right click to select "Open".

« Code ▸ _5 Unpacking_test_code ▸ Unpacking_test_code

Unpacking_test_code.ino	2022/5/27 14:34
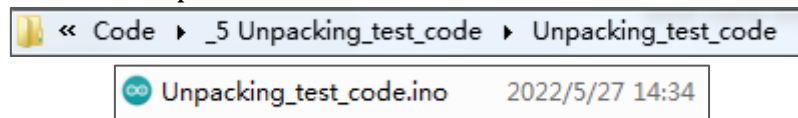
7. Click the menu bar of the Arduino IDE interface: "Tools" -> "development board" -> "Arduino AVR boards" -> "Arduino uno", "Tools" -> "port" -> Select the drive board COM slogan recognized by the computer.

8. Then click the "Upload" button on the Arduino IDE interface. After the upload is completed, the test can be carried out.

Test code description:

Servo test:

● There are two control modes in the test: 0, separate control; 1. Full control (To switch the control mode, you need to change the "control" variable of int type in the code file "unpacking_test_code.ino" in the following figure to 0 or 1, save and upload it to the development board).

```
Unpacking_test_code
22  // create servo objects to control servos
23  Servo s[PIN_COUNT];
24  // Define control mode: 0, independent control;      1, Full control.
25  int control = 1;
```

● Click the button of Arduino code binding on the driver board, you can switch the next pin load servo to be tested.

● Please refer to the code Notes for details.

OLED test:

● After the program is uploaded, the OLED on the driver board displays "OLED OK!", it indicates that OLED works normally. (The content of the test displayed here can be changed)

Potentiometer test:

● After the OLED on the driver board displays "OLED OK!" 3 seconds, the OLED will display the parameter values of the potentiometer read in real time as follows:
  1. The display format is as follows: a:1_100, 2_200...

  2. Indicates that the degree of A1 is 100 (1_100), and the degree of A2 is 200 (2_200)......