Code Details

miniarm_servo.ino

```
#include <Servo.h> // import servo library

Servo servos[5]; // create servo variables

const static uint8_t servoPins[5] = { 7, 6, 5, 4, 3}; // define servo pins

void setup() { // put your setup code here, to run once:

  for (int i = 0; i < 5; ++i) {
    // attach the servo variables to the respective servo pins
    servos[i].attach(servoPins[i],500,2500);
  }
  delay(2000); // wait 2 seconds for the setup

}

void loop() { // put your main code here, to run repeatedly:

  for (int i = 0; i < 5; ++i) {
    // tell each servo to go to 135 degree
    servos[i].write(135);
    delay(1000);
  }
  for (int i = 0; i < 5; ++i) {
    // tell each servo to go to 90 degree
    servos[i].write(90);
    delay(1000);
  }

}
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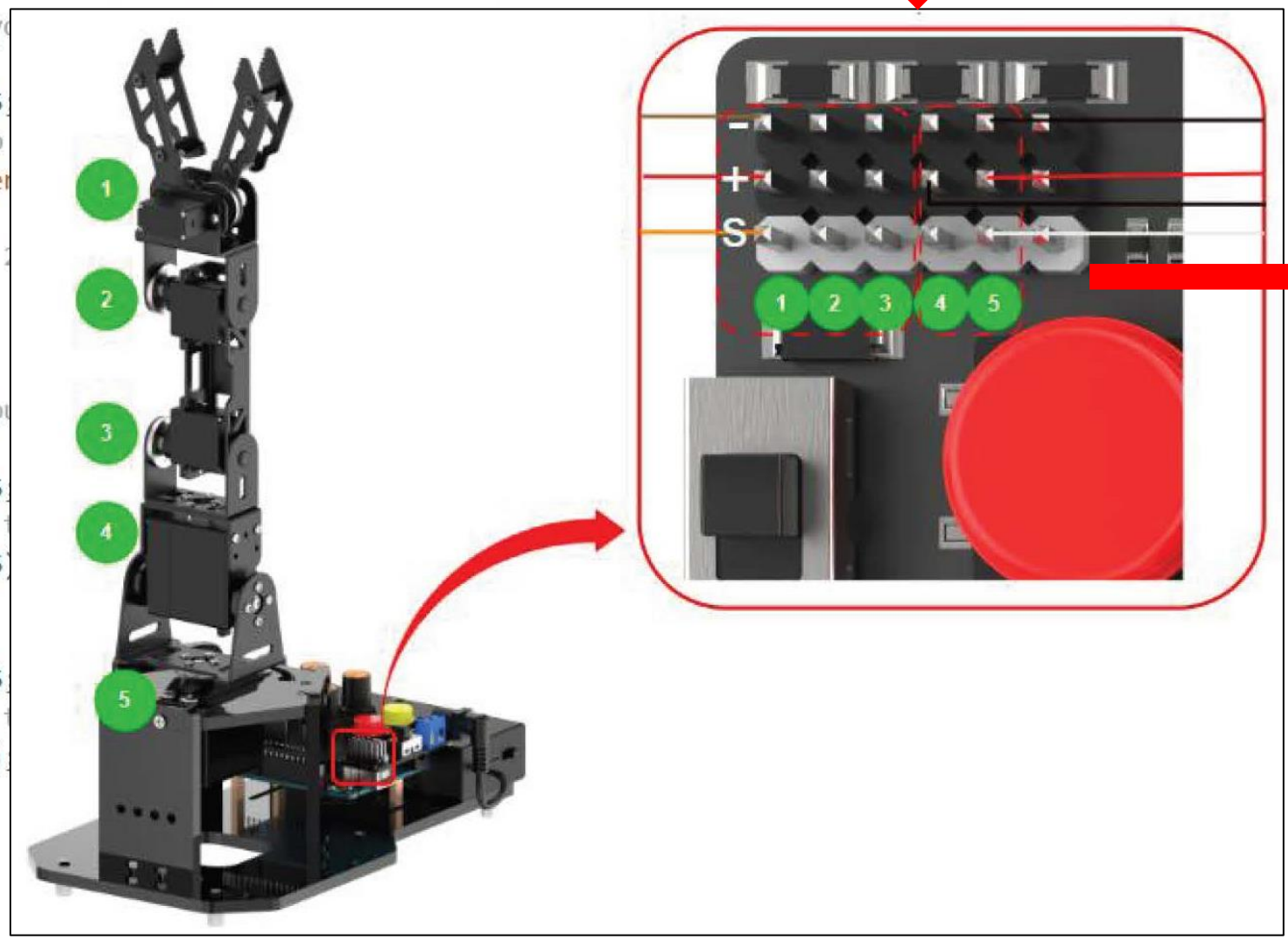
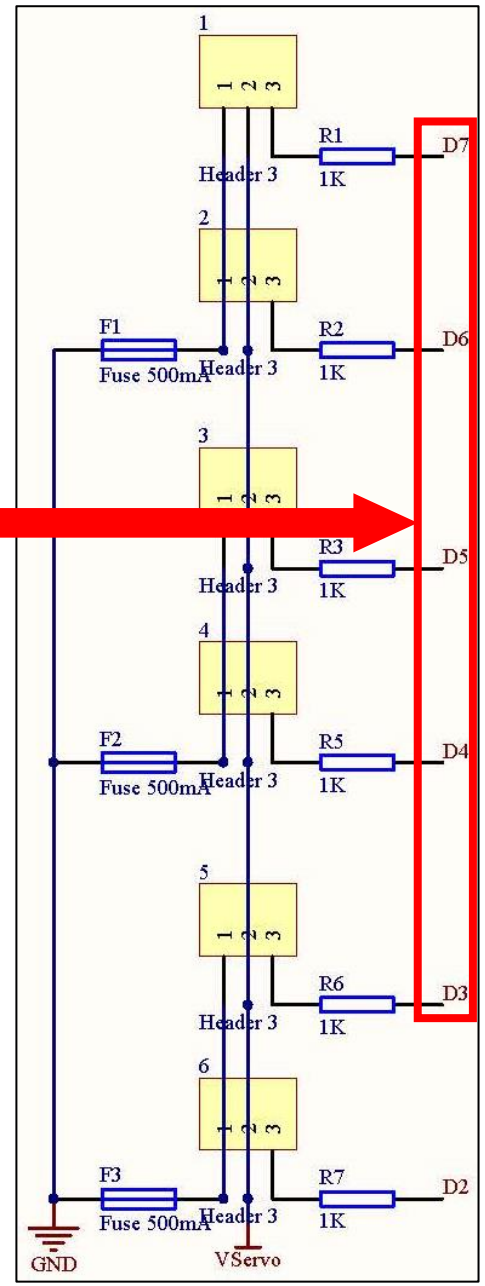
Download Arduino IDE: arduino.cc/en/software
Reference: docs.arduino.cc/libraries/servo/





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```

```
servo.attach(pin, min, max)
```

Parameters

- *servo*: a variable of type `Servo`
- *pin*: the number of the pin that the servo is attached to
- *min* (optional): the pulse width, in microseconds, corresponding to the minimum (0 degree) angle on the servo (defaults to 544)
- *max* (optional): the pulse width, in microseconds, corresponding to the maximum (180 degree) angle on the servo (defaults to 2400)

Hiwonder Shenzhen Hiwonder Technology Co,Ltd

LD-1501MG Digital Servo

1. Product Introduction

When use LD-1501MG Digital Servo, signal terminal sends a PWM signal with a period of 20ms. It controls servo angle by adjusting pulse width. The pulse width is available from 500 to 2500μs corresponding to angle from 0°to 180°.

How to run the code

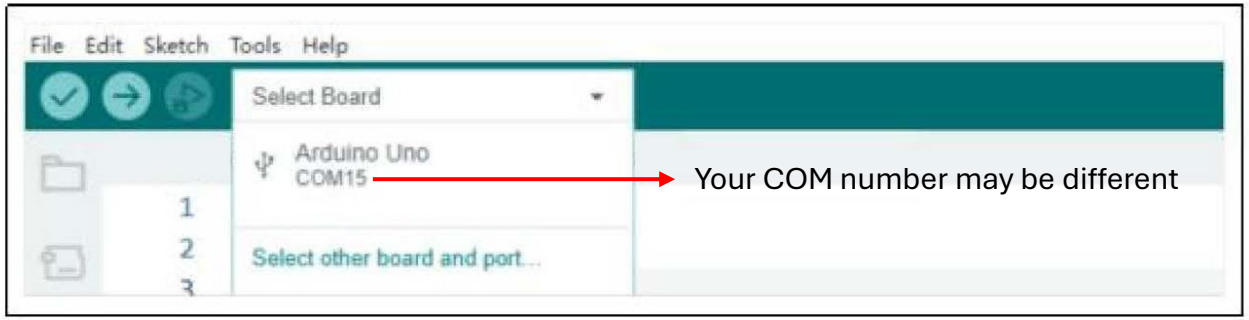
Upload the code to the Arduino board

Note:

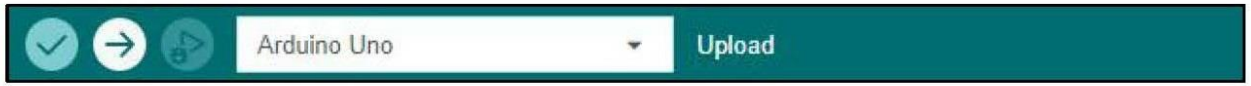
- ❖ Remove the Bluetooth module before uploading program, or else the program will fail to upload because of serial port conflict.
- ❖ Switch the battery box to the ‘OFF’ when connecting the Type-B cable to the Arduino board. This action prevents the cable from accidentally touching the power pins of the expansion board, which may cause short circuit.

Connect Arduino board to the computer using Type-B cable.

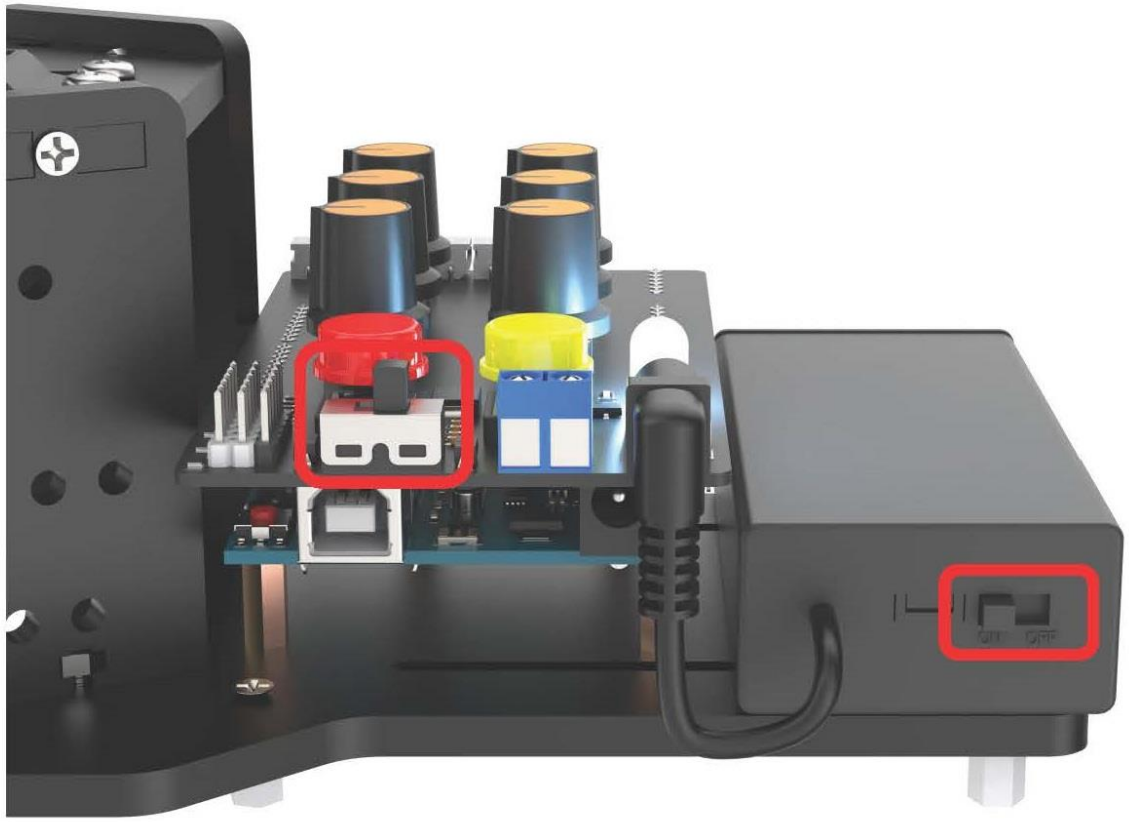
Click “Select Board”, and the software will automatically detect the current Arduino serial port. Next, click to connect.



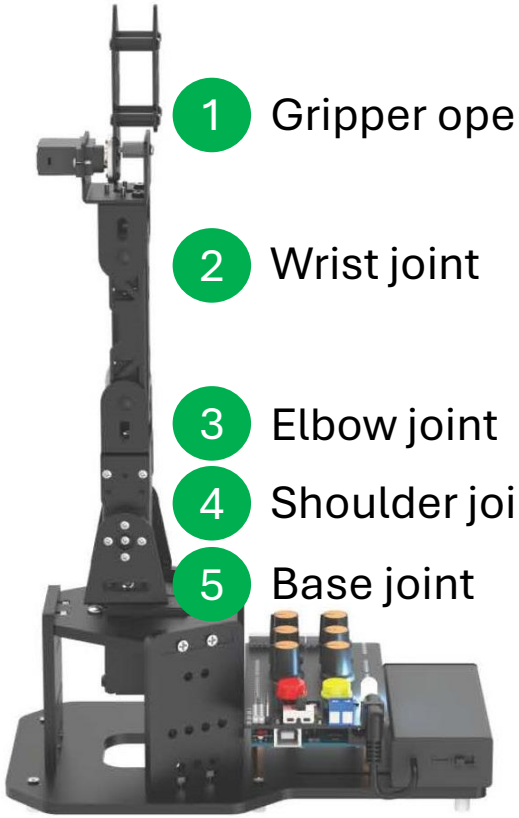
Click  to upload the program into Arduino. Then just wait for it to complete.



Switch the battery box and the expansion board to “ON”.



the robotic arm returns to the neutral position.



After around 2 seconds (the setup delay duration), you will see each servo/joint of the arms moves to 135 degree starting from the gripper to the base joint with 1 second wait in between, and then they will move to 90 degree, and continue to loop this sequence.

```
17  void loop() { // put your main code here, to run repeatedly:
18
19    for (int i = 0; i < 5; ++i) {
20      // tell each servo to go to 135 degree
21      servos[i].write(135);
22      delay(1000);
23    }
24    for (int i = 0; i < 5; ++i) {
25      // tell each servo to go to 90 degree
26      servos[i].write(90);
27      delay(1000);
28    }
29
30  }
```