# Lesson 7 - Control The Robot Arm

1. Upload the code

After the robotic arm is assembled, install two 18650 batteries to it and turn on the power switch of the nano shield, connect the nano board to the USB port of the PC.
**NOTE:**
Turn on the power switch of the shield since the current provided by the usb is not enough to drive the servos
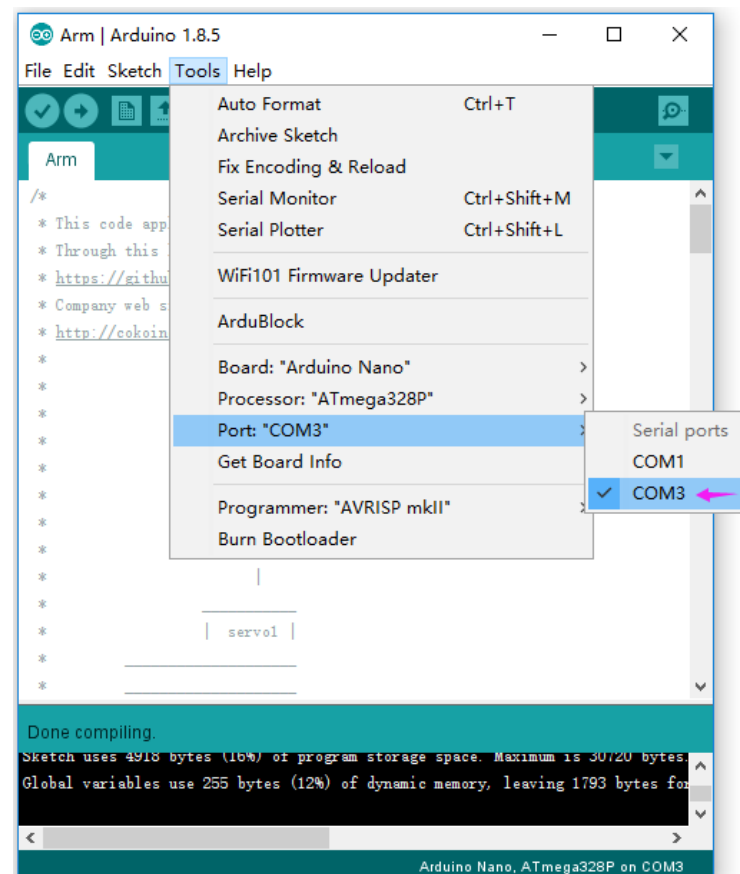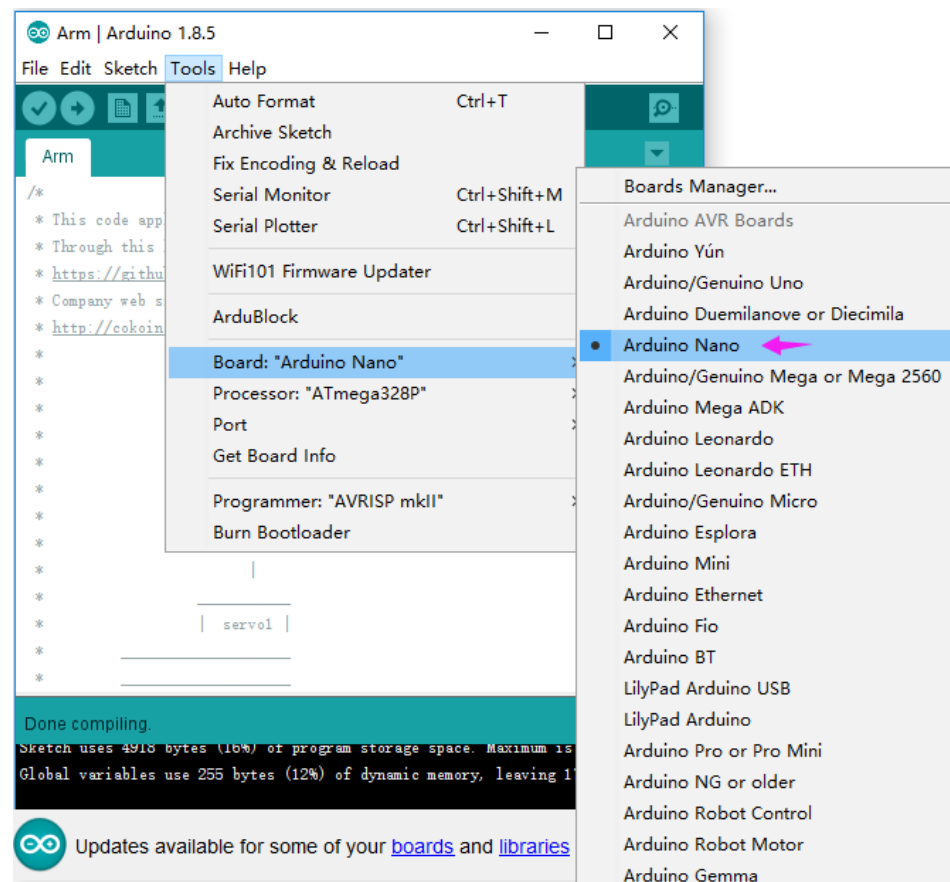**Make sure your two 18650 batteries have enough power**
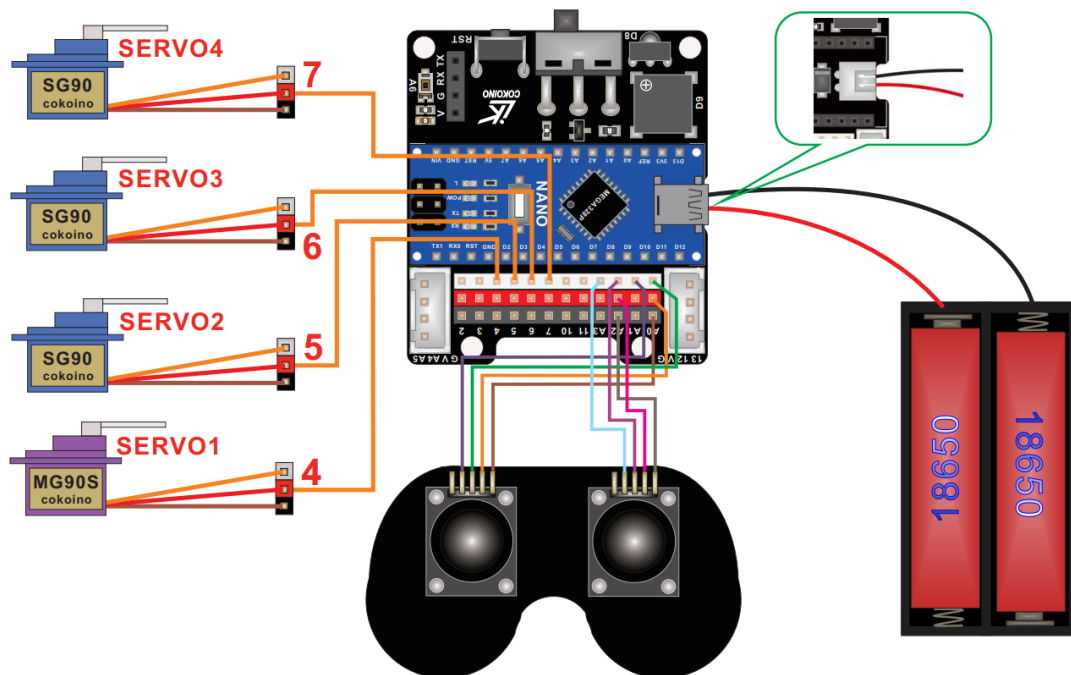
Find the "Arm" code from the following path, open it with the Arduino IDE and select the board type and com port of the IDE.
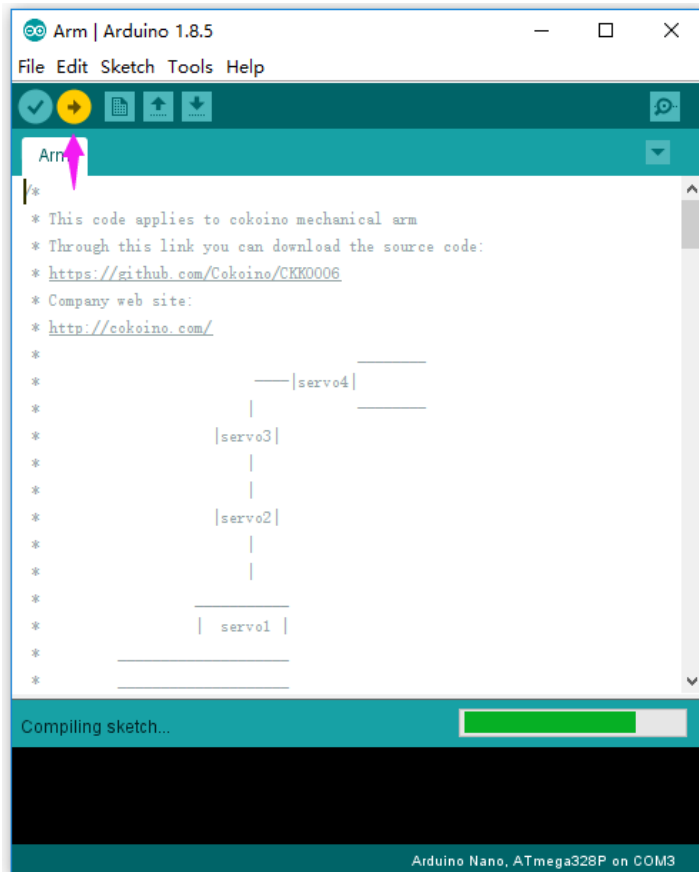Note: **The src folder cannot be moved, it must be placed in the Arm folder with the "Arm" code, otherwise, your code will not be uploaded.**
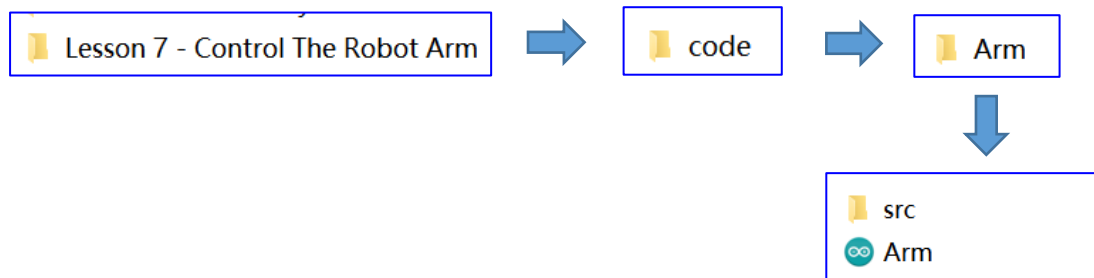
Open the Arm code with Arduino IDE, select the correct board type and com port, and

upload the code.

Arm | Arduino 1.8.5 — □ ✕

File Edit Sketch Tools Help

Arm

```
/*
 * This code applies to cokoino mechanical arm
 * Through this link you can download the source code:
 * https://github.com/Cokoino/CKK0006
 * Company web site:
 * http://cokoino.com/
 *                                              _____
 *                                    ——|servo4|
 *                              |               _____
 *                          |servo3|
 *                              |
 *                              |
 *                          |servo2|
 *                              |
 *                              |
 *                          _____
 *                          |  servo1 |
 *
```

Compiling sketch...
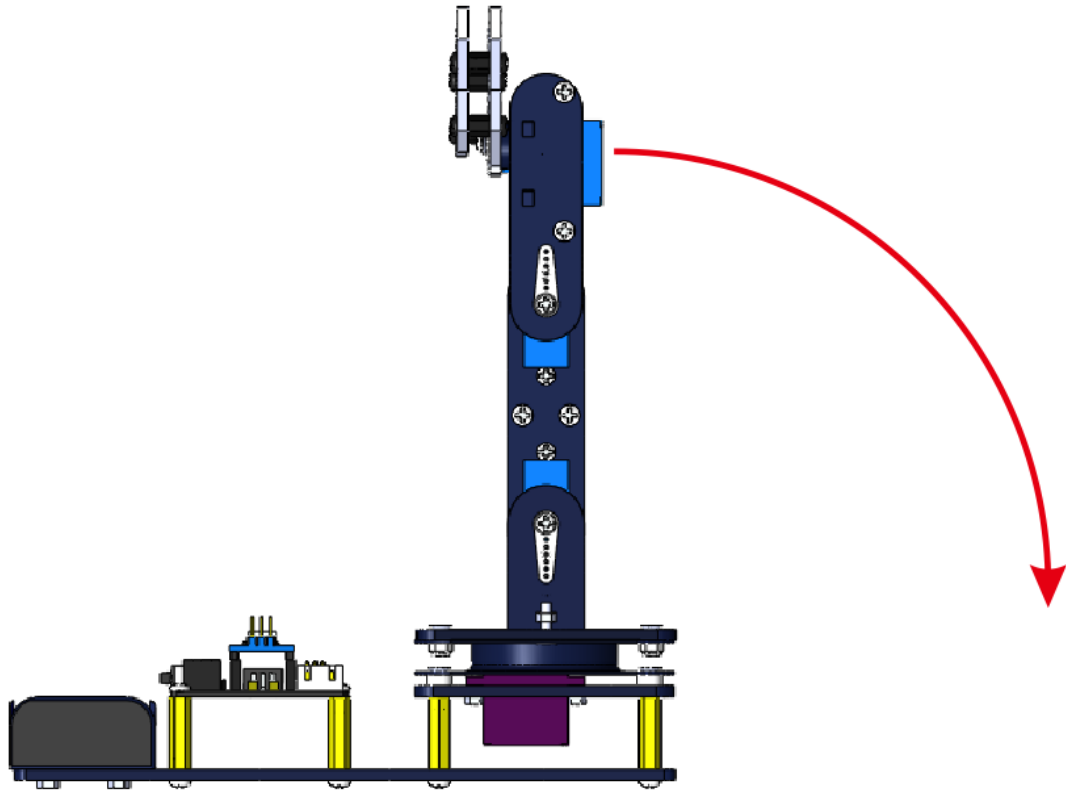
Arduino Nano, ATmega328P on COM3
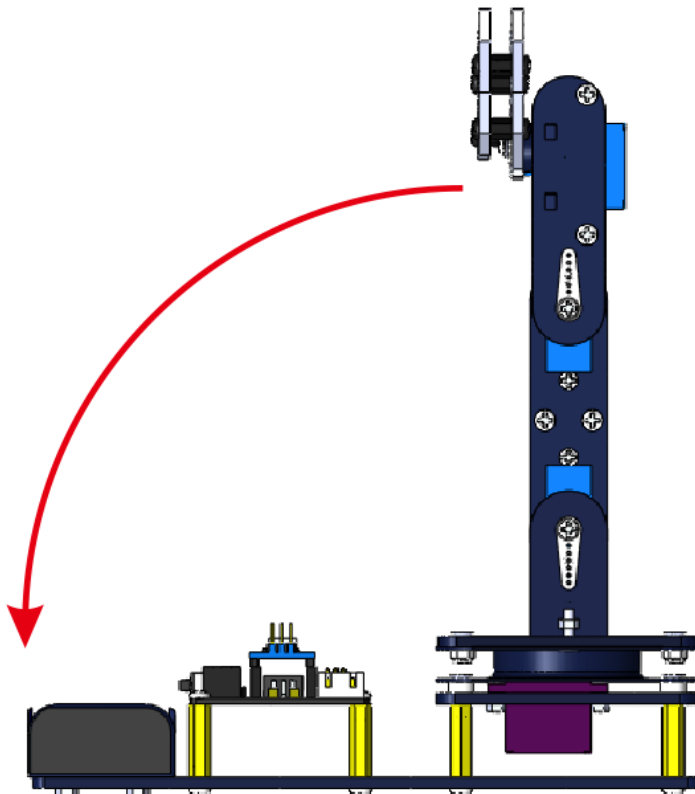
2. How to control the robotic arm

The following explains how the joystick controller controls the robot work by marking the direction of the joystick controller with numbers.:
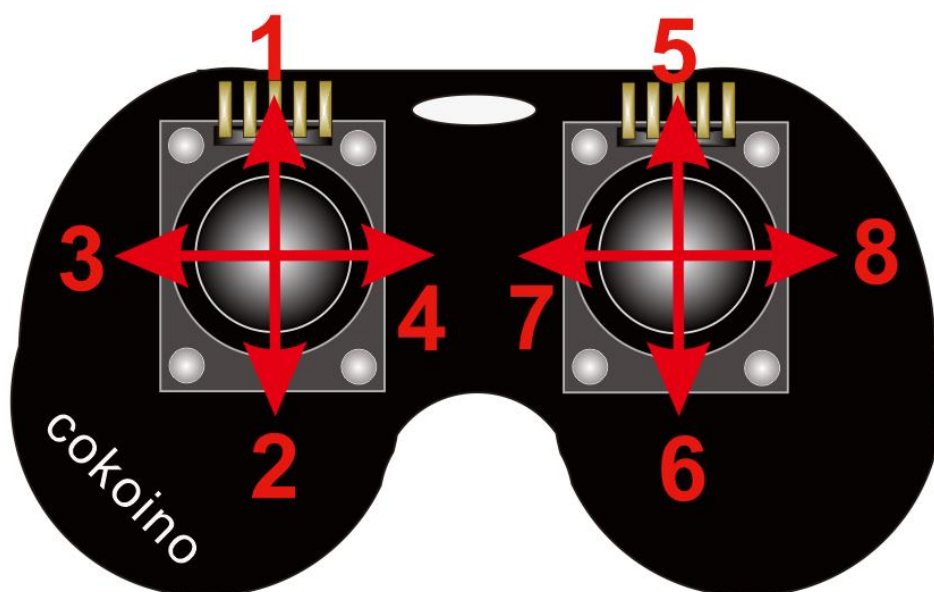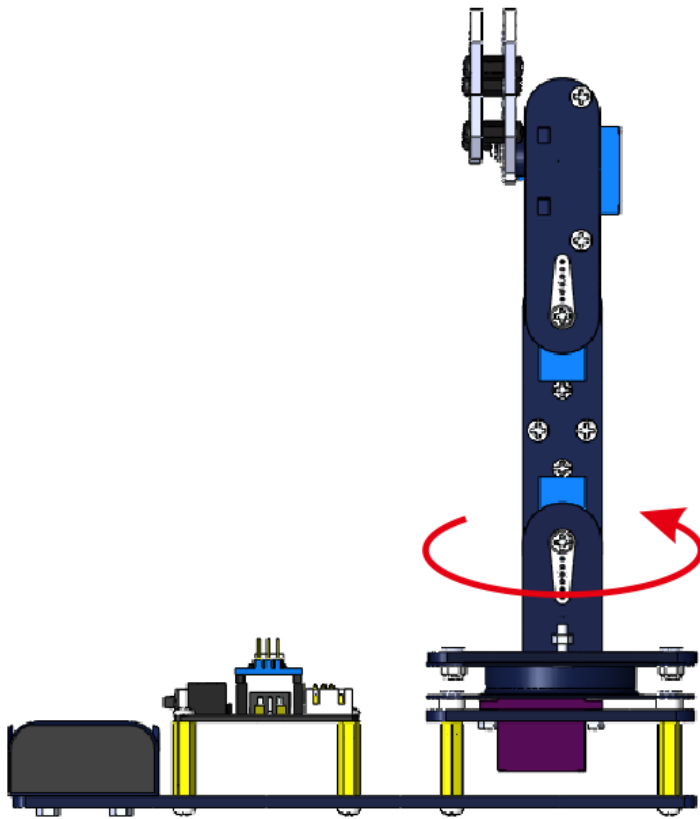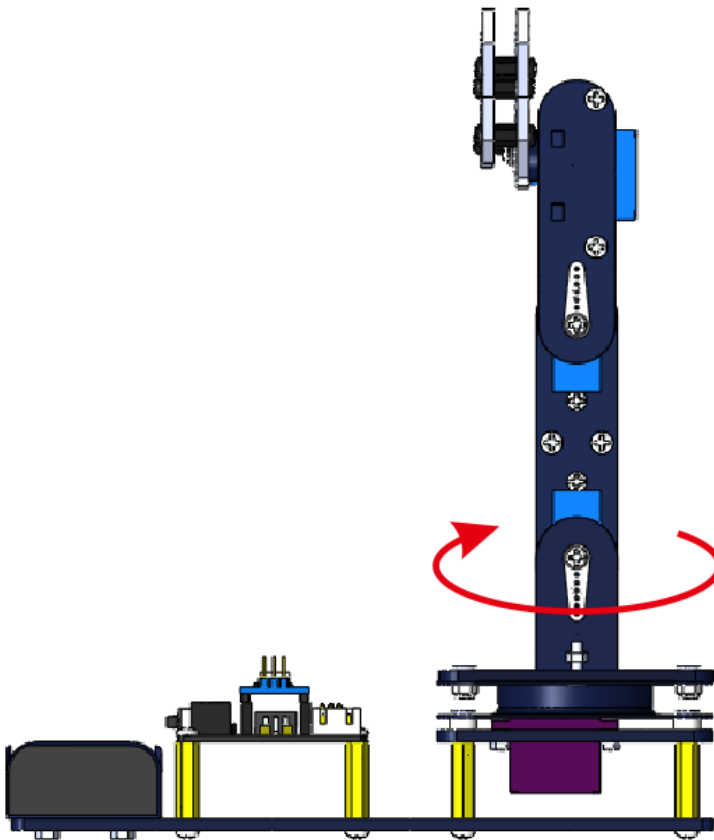
Number 1：The robotic arm stretches forward
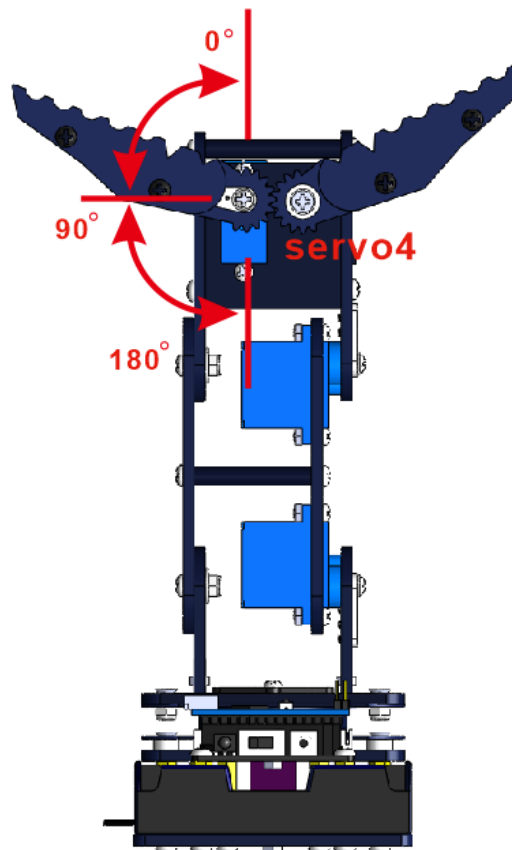
Number 2：Robot arm stretches back

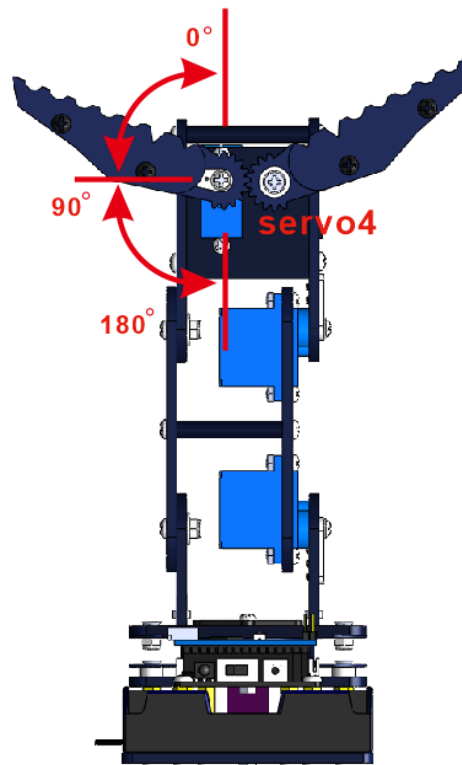Number 3：The base of the robotic arm rotates to the left

Number 4：The base of the robotic arm rotates to the right

Number 5：Claw of robotic arm close up

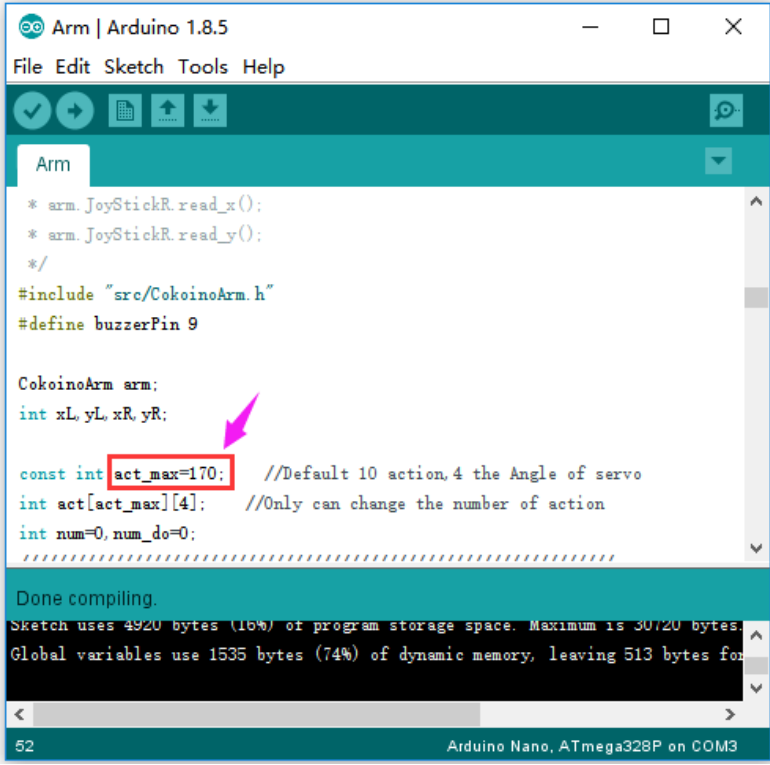Number 6：The claw of the robot arm opens

Number 7：Record an action

Push the right joystick to the left direction once(number 7 direction), and an action will be recorded. In the program we provide, the robotic arm can record up to 10 actions continuously. When the robot records 10 actions, the buzzer will sound once, and then it will start to record 10 actions repeatedly. After 10 actions are completed, the buzzer will sound again. once.

Number 8：Perform recorded actions

Push the right joystick to the right direction (number 8 direction), the buzzer will sound and the robot will perform the recorded action, after the action is completed, the buzzer will sound again.

3. Record more actions

By modifying the numbers in the base code, you can record up to 170 actions, as shown in the image below: