

Robotic arm swing

1. Experimental ideas

This experiment is to control the mechanical arm to swing up and down, left and right, and then return to the upright state. By controlling the different angles of the No. 3 and No. 4 servos at the same time, the function of controlling the servos to swing up and down is achieved, and then controlling the No. 1 servo to swing left and right, and finally return to the upright state.

2. Code content

Code path:/root/Dofbot/3.ctrl_Arm/6.left_right.ipynb

```
#!/usr/bin/env python3
#coding=utf-8
import time
from Arm_Lib import Arm_Device
#Create a robotic arm object
Arm = Arm_Device()
time.sleep(.1)
```

```
def main():
    # Reset the servo to center
    Arm.Arm_serial_servo_write6(90, 90, 90, 90, 90, 90, 500)
    time.sleep(1)
    while True:
        #Control the No.3 and No.4 servos to move up and down
        Arm.Arm_serial_servo_write(3, 0, 1000)
        time.sleep(.001)
        Arm.Arm_serial_servo_write(4, 180, 1000)
        time.sleep(1)

        # Control the left and right movement of the No. 1 servo
        Arm.Arm_serial_servo_write(1, 180, 500)
        time.sleep(.5)
        Arm.Arm_serial_servo_write(1, 0, 1000)
        time.sleep(1)

        # Control the servo to return to its initial position
        Arm.Arm_serial_servo_write6(90, 90, 90, 90, 90, 90, 1000)
        time.sleep(1.5)

    try:
        main()
    except KeyboardInterrupt:
        print("Program closed! ")
        pass
```

```
del Arm # Release the Arm object
```

