6.6 DOFBOT up down left right

1.Experiment ideas

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

2.Code content

Code path：/home/jetson/Dofbot/3.ctrl_Arm/6.left_right.ipynb

```
#!/usr/bin/env python3
#coding=utf-8
import time
from Arm_Lib import Arm_Device
# Create robot 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 up and down movement of servos No. 3 and No. 4
         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 Arm object
```