**1. Experimental objectives**

In this course, we will learn how to control DOFBOT up, down, left and right. Then, it will return to middle state.

By controlling the different angles of the No. 3 and No. 4 servos at the same time to realize DOFBOT up and down movement. Then, By controlling No. 1 servo to realize swing left and right, and finally it returns to middle state.

**2. About 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

# Get a robotic arm object
Arm = Arm_Device()
time.sleep(.1)
```

```
# Control DOFBOT swing up and down from side to side
def main():
    # Middle servo
    Arm.Arm_serial_servo_write6(90, 90, 90, 90, 90, 90, 500)
    time.sleep(1)


    while True:
        # Control No. 3 and No.4 servo 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 No. 1 servo left and right
        Arm.Arm_serial_servo_write(1, 180, 500)
        time.sleep(.5)
        Arm.Arm_serial_servo_write(1, 0, 1000)
        time.sleep(1)

        # Control servo to restore 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
```