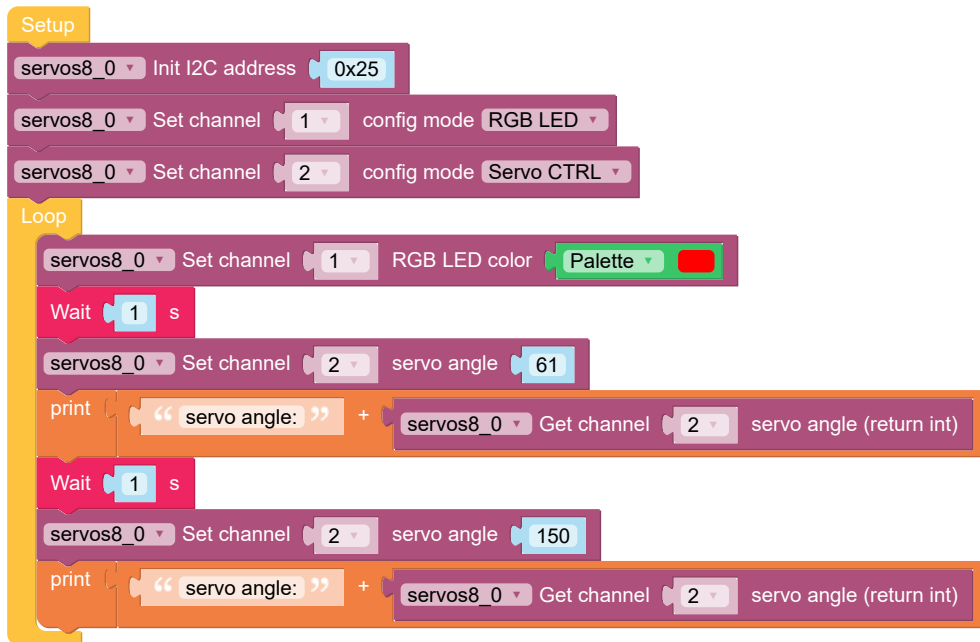


Unit 8Servos

| 案例程序

设置通道 1 设置连接的 RGB LED 为红色，设置连接的 Servo 每一秒调整旋转角度



```

from m5stack import *
from m5ui import *
from uiflow import *
import time
import unit

setScreenColor(0x222222)
servos8_0 = unit.get(unit.SERVOS8, unit.PORTA)

servos8_0.init_i2c_address(0x25)
servos8_0.set_config_mode(1, 4)
servos8_0.set_config_mode(2, 3)
while True:
    servos8_0.write_rgb_led(1, 0xff0000)
    wait(1)
    servos8_0.write_servo_angle(2, 61)
    print((str('servo angle:') + str((servos8_0.read_servo_angle(2)))))
    wait(1)
    servos8_0.write_servo_angle(2, 150)
    print((str('servo angle:') + str((servos8_0.read_servo_angle(2)))))
    wait_ms(2)

```

功能说明

servos8_0 Init I2C address **0x25**

```
servos8_0.init_i2c_address(0x25)
```

- 初始化 I2C 地址

servos8_0 Get channel **0** config mode (return int)

```
print((str('config mode:') + str((servos8_0.get_config_mode(0)))))
```

- 获取指定通道配置模式

servos8_0 Get channel **0** ADC 12bit (return int)

```
print((str('ADC 12bit:') + str((servos8_0.read_adc12_pin(0)))))
```

- 获取指定通道的12位 ADC（模数转换）值

servos8_0 Get channel **0** ADC 8bit (return int)

```
print((str('ADC 8bit:') + str((servos8_0.read_adc8_pin(0)))))
```

- 获取指定通道的8位 ADC（模数转换）值

servos8_0 Get channel **0** digital input (return True or False)

```
print((str('rgb led color:') + str((servos8_0.read_input_pin(0)))))
```

- 获取指定通道的数字输入状态（返回 true 或 false）

servos8_0 Get channel **0** RGB LED color (return list)

```
print((str('rgb led color:') + str((servos8_0.read_rgb_led(0)))))
```

- 获取指定通道的 RGB LED 颜色（返回颜色列表）

servos8_0 Get channel **0** servo angle (return int)

```
print((str('servo angle:') + str((servos8_0.read_servo_angle(0)))))
```

- 获取指定通道的旋转角度

servos8_0 Get servo current (return float)

```
print((str('servo current:') + str((servos8_0.read_servo_current()))))
```

- 获取舵机电流（返回 float）

servos8_0 Get channel **0** servo pulse (return int)

```
print((str('servo pulse:') + str((servos8_0.read_servo_pulse(0)))))
```

- 获取指定通道的舵机脉冲宽度（返回整数）

servos8_0 Get firmware version

```
print((str('firmware version:') + str((servos8_0.read_status(0XFE)))))
```

- 获取固件版本

servos8_0 Set channel **0** config mode **Digital Input**

```
servos8_0.set_config_mode(0, 0)
```

- 设置指定通道的配置模式
 - Digital Input:数字输入模式
 - Digital Output:数字输出模式
 - ADC Input:模拟输入模式
 - Servo CTRL:舵机控制模式
 - RGB LED:RGB LED 控制模式
 - PWM Duty:PWM 占空比控制模式

servos8_0 Set I2C address **0x25**

```
servos8_0.set_i2c_address(0x0x25)
```

- 设置 I2C 地址

servos8_0 Set channel **0** digital output level **0**

```
servos8_0.write_output_pin(0, 0)
```

- 设置指定通道数字输出电平

servos8_0 Set channel **0** pwm duty cycle **50** %

```
servos8_0.write_pwm_duty(0, 50)
```

- 设置指定通道的 PWM 占空比

servos8_0 Set channel **0** RGB LED color **Palette**

```
servos8_0.write_rgb_led(0, 0xff0000)
```

- 设置指定通道的 RGB LED 颜色

servos8_0 Set channel **0** servo angle **0**

```
servos8_0.write_servo_angle(0, 0)
```

- 设置指定通道的舵机旋转角度



```
servos8_0.write_servo_pulse(0, 500)
```

- 设置指定通道的舵机脉冲宽度