

微控制器編程課程（進階）課程
手機無線控制電動密碼鎖
編程範例

```
#include <IW.h>
#include <Servo.h>
Servo Servo1;
String passworddata;
String incomingdata;
String colordata;
int red_light = A4;
int green_light = A3;
int blue_light = A2;

void setup() {
  Servo1.attach(4);
  Serial.begin(57600);
  Serial.setTimeout(10);
  pinMode(red_light, OUTPUT);
  pinMode(green_light, OUTPUT);
  pinMode(blue_light, OUTPUT);
}

void loop() {
  Locker();
  Led();
  RGB();

  if (Serial.available() > 0) {
    incomingdata = Serial.readString();
    incomingdata.trim();
  }
}

void Led() {
  if (incomingdata == "on") {
    digitalWrite(red_light, HIGH);
    digitalWrite(blue_light, HIGH);
    digitalWrite(green_light, HIGH);
    Serial.println("SYSTEM: LED ON");
  }
}
```

```

if (incomingdata == "off") {
    digitalWrite(red_light, LOW);
    digitalWrite(blue_light, LOW);
    digitalWrite(green_light, LOW);
    Serial.println("SYSTEM: LED OFF");
}
}
void Locker() {

    if (incomingdata == "1234") {
        Servo1.write(0);
        digitalWrite(green_light, HIGH);
        digitalWrite(red_light, LOW);
        digitalWrite(blue_light, LOW);
        Serial.println("SYSTEM: CORRECT PW UNLOCK");

    } else {
        Servo1.write(180);
        digitalWrite(red_light, HIGH);
        digitalWrite(blue_light, LOW);
        digitalWrite(green_light, LOW);
        //Serial.println("SYSTEM: WORNG PW TRY AGAIN");
    }
}
void RGB() {

    if (incomingdata == "red") {
        digitalWrite(red_light, HIGH);
        digitalWrite(blue_light, LOW);
        digitalWrite(green_light, LOW);
        Serial.println("SYSTEM: LED RED");
    }
    if (incomingdata == "green") {
        digitalWrite(green_light, HIGH);
        digitalWrite(red_light, LOW);
        digitalWrite(blue_light, LOW);
        Serial.println("SYSTEM: LED GREEN");
    }
    if (incomingdata == "blue") {
        digitalWrite(blue_light, HIGH);
        digitalWrite(red_light, LOW);
        digitalWrite(green_light, LOW);
    }
}

```

```
Serial.println("SYSTEM: LED BLUE");
```

```
}
```

```
}
```