

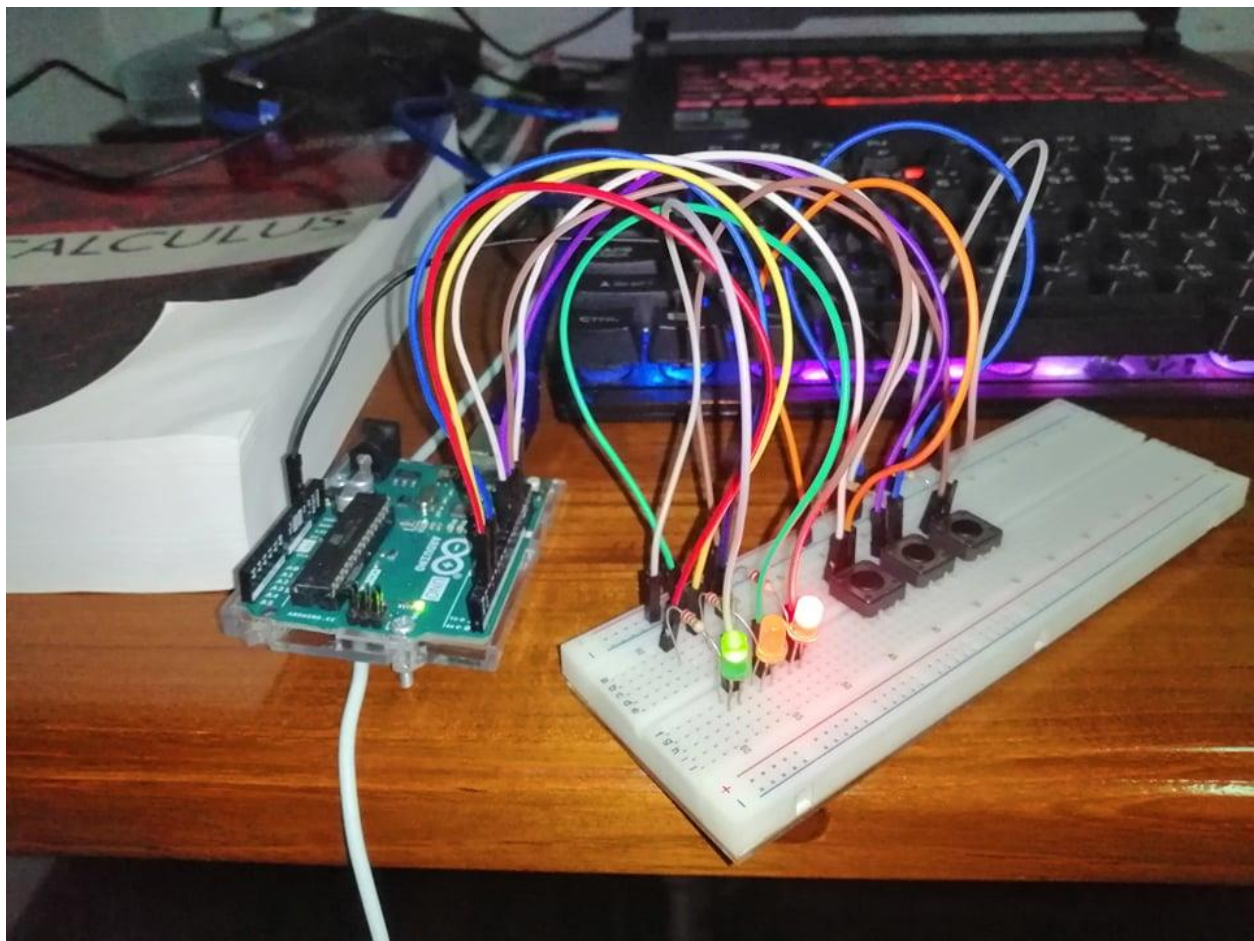
Assignment #2

ชื่อกลุ่ม : ฟ้ายรักพ่อ

สมาชิกในกลุ่ม : 64010270 นายคณพัฒน์ โพธิ์น้อย

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รูปถ่ายชิ้นงาน



```
int button_1 = 12;  
int button_2 = 11;  
int button_3 = 10;
```

```
int led_1 = 4;  
int led_2 = 3;  
int led_3 = 2;
```

```
int buttonState_1;  
int buttonState_2;  
int buttonState_3;
```

```
int lastButtonState_1 = LOW;  
int lastButtonState_2 = LOW;  
int lastButtonState_3 = LOW;
```

```
long lastDebounceTime_1 = 0;  
long lastDebounceTime_2 = 0;  
long lastDebounceTime_3 = 0;
```

```
long debounceDelay_1 = 50;  
long debounceDelay_2 = 50;  
long debounceDelay_3 = 50;
```

```
int ledState_1 = LOW;  
int ledState_2 = LOW;  
int ledState_3 = LOW;
```

```
void setup() {
```

```

Serial.begin(9600);
pinMode(led_1, OUTPUT);
pinMode(led_2, OUTPUT);
pinMode(led_3, OUTPUT);
pinMode(button_1, INPUT);
pinMode(button_2, INPUT);
pinMode(button_3, INPUT_PULLUP);
}

void loop() {
    int reading_1 = digitalRead(button_1);
    int reading_2 = digitalRead(button_2);
    int reading_3 = digitalRead(button_3);

    if (reading_1 != lastButtonState_1) {
        lastDebounceTime_1 = millis();
    }

    // Red light is on 3 second
    if ( ( millis() - lastDebounceTime_1 ) >
debounceDelay_1 ) {
        if (reading_1 != buttonState_1 ) {
            buttonState_1 = reading_1;
        }
        if (buttonState_1 == HIGH) {
            ledState_1 = !ledState_1;
            Serial.println("PressedSwitch1.");
        }
        if (buttonState_1 == LOW && ( millis() -

```

```

lastDebounceTime_1) > 3000 ) {
    ledState_1 = LOW;
}
}

// Green light is on but Red light is not
effect Green light
if (ledState_1 == HIGH) {
    if (buttonState_3 == HIGH && (millis() -
lastDebounceTime_3) > 3000 ) {
        ledState_3 = LOW;
    }
}
else if (ledState_1 == LOW) {
    if (reading_3 != lastButtonState_3) {
        lastDebounceTime_3 = millis();
    }
    if ( (millis() - lastDebounceTime_3) >
debounceDelay_3 ) {
        if (reading_3 != buttonState_3 ) {
            buttonState_3 = reading_3;
            if (buttonState_3 == LOW) {
                ledState_3 = !ledState_3;
                Serial.println("PressedSwitch3.");
            }
        }
        if (buttonState_3 == HIGH && (millis() -
lastDebounceTime_3) > 3000 ) {
            ledState_3 = LOW;

```

```

    }
}

}

// Yellow is on off on off
if (ledState_1 == HIGH || ledState_3 ==
HIGH) {

    if (buttonState_2 == HIGH && (millis() -
lastDebounceTime_2) > 500 ) {
        ledState_2 = HIGH;
    }
    if (buttonState_2 == HIGH && (millis() -
lastDebounceTime_2) > 1000 ) {
        ledState_2 = LOW;
    }
    if (buttonState_2 == HIGH && (millis() -
lastDebounceTime_2) > 1500 ) {
        ledState_2 = HIGH;
    }
    if (buttonState_2 == HIGH && (millis() -
lastDebounceTime_2) > 2000 ) {
        ledState_2 = LOW;
    }
}
else {
    if (reading_2 != lastButtonState_2) {
        lastDebounceTime_2 = millis();

```

```

    }

    if ( (millis() - lastDebounceTime_2) >
debounceDelay_2 ) {
        if (reading_2 == 0 ) {
            buttonState_2 = HIGH;
        }
        if (buttonState_2 == HIGH && (millis() -
lastDebounceTime_2) > 500 ) {
            ledState_2 = HIGH;
        }
        if (buttonState_2 == HIGH && (millis() -
lastDebounceTime_2) > 1000 ) {
            ledState_2 = LOW;
        }
        if (buttonState_2 == HIGH && (millis() -
lastDebounceTime_2) > 1500 ) {
            ledState_2 = HIGH;
        }
        if (buttonState_2 == HIGH && (millis() -
lastDebounceTime_2) > 2000 ) {
            ledState_2 = LOW;
        }
    }
}

digitalWrite(led_1, ledState_1);
lastButtonState_1 = reading_1;

digitalWrite(led_2, ledState_2);

```

```
lastButtonState_2 = reading_2;
```

```
digitalWrite(led_3, ledState_3);
```

```
lastButtonState_3 = reading_3;
```

```
}
```