

# Activity 4 : Having Fun with Arduino

**Group No : 03**

**Group Member :**

1. Natthaphon Suphansri
2. Sirapop chaddaeng
3. Waranthorn Chansawang

## Part 3 : Clapping LED

In this part, you will do the coding to create a clapping LED. Clapping [12-123-12-12-1] the clapping state is divided into 5 states. When the button is pushed, play the led only one state. For example: [PUSH BUTTON] x-x [PUSH BUTTON] x-x-x [PUSH BUTTON] x-x [PUSH BUTTON] x-x [PUSH BUTTON] x [PUSH BUTTON] x-x [PUSH BUTTON] x-x-x [PUSH BUTTON] x-x [PUSH BUTTON] x-x [PUSH BUTTON] x

Note: For 'x' means LED ON and '-' means LED OFF

\*\* Given 0.125s delay time between 'x' and '-'

Example Video Clip : <https://youtu.be/Eld2ZTJbMWQ>

```
#include <Servo.h>

int ledpin = 2;
int button = 3;
int buttonState = 0;
int count = 1;

void setup()
{
  pinMode(ledpin, OUTPUT);
  pinMode(button, INPUT);
}

void loop()
{
  buttonState = digitalRead(button);
  if (buttonState == 1){
    if (count%5 == 1){
```

```
digitalWrite(ledpin, HIGH);
delay(1250);
digitalWrite(ledpin, LOW);
delay(1250);
digitalWrite(ledpin, HIGH);
delay(1250);
}
if (count%5 == 2){
    digitalWrite(ledpin, HIGH);
    delay(1250);
    digitalWrite(ledpin, LOW);
    delay(1250);
    digitalWrite(ledpin, HIGH);
    delay(1250);
    digitalWrite(ledpin, LOW);
    delay(1250);
    digitalWrite(ledpin, HIGH);
    delay(1250);
}
if (count%5 == 3){
    digitalWrite(ledpin, HIGH);
    delay(1250);
    digitalWrite(ledpin, LOW);
    delay(1250);
    digitalWrite(ledpin, HIGH);
    delay(1250);
}
if (count%5 == 4){
    digitalWrite(ledpin, HIGH);
    delay(1250);
    digitalWrite(ledpin, LOW);
    delay(1250);
    digitalWrite(ledpin, HIGH);
    delay(1250);
}
if (count%5 == 0){
    digitalWrite(ledpin, HIGH);
    delay(1250);
    digitalWrite(ledpin, LOW);
    delay(1250);
}
```

```
    digitalWrite(ledpin, HIGH);  
    delay(1250);  
}  
count = count + 1;  
}  
if (buttonState == 0){  
    digitalWrite(ledpin, LOW);  
}  
}
```

When you are done show it to the instructor or TA.