

```
#include <FastLED.h>
```

```
#define LED_PIN 6
```

```
#define NUM_LEDS 60
```

```
#define BRIGHTNESS 64
```

```
#define FSR_PIN A0
```

```
#define BUTTON_PIN 2 // A button to start the game
```

```
#define BUTTON_LED 13 // Built-in LED to indicate the game state
```

```
#define HIT_THRESHOLD 600
```

```
#define HIT_TIMEOUT 3000 // 3 seconds
```

```
CRGB leds[NUM_LEDS];
```

```
boolean gameRunning = false;
```

```
unsigned long gameStartTime = 0;
```

```
unsigned long lastHitTime = 0;
```

```
boolean buttonState = false;
```

```
boolean lastButtonState = false;
```

```

void setup() {

    FastLED.addLeds<WS2812, LED_PIN, GRB>(leds, NUM_LEDS);

    FastLED.setBrightness(BRIGHTNESS);

    pinMode(FSR_PIN, INPUT);

    pinMode(BUTTON_PIN, INPUT_PULLUP);

    pinMode(BUTTON_LED, OUTPUT);

    Serial.begin(9600);

}

void loop() {

    buttonState = digitalRead(BUTTON_PIN);

    if (!gameRunning) {

        if (buttonState && !lastButtonState) {

            startGame();

        }

    } else {

        unsigned long currentTime = millis();

        int fsrValue = analogRead(FSR_PIN);

        if (fsrValue >= HIT_THRESHOLD) {

            setLedColor(CRGB::Green, 100); // Successful hit (blinking green)

            lastHitTime = currentTime;

```

```

    } else {
        if (currentTime - lastHitTime > HIT_TIMEOUT) {
            // No hit within the timeout (blinking red)
            setLedColor(CRGB::Red, 100);
        } else {
            // Waiting to hit (solid white)
            setLedColor(CRGB::White);
        }
    }
}

if (currentTime - gameStartTime >= 180000) { // 3 minutes
    endGame();
}
}

lastButtonState = buttonState;
}

void startGame() {
    gameRunning = true;
    gameStartTime = millis();
    lastHitTime = gameStartTime;
    digitalWrite(BUTTON_LED, HIGH); // Turn on the built-in LED

```

```
}
```

```
void endGame() {  
    gameRunning = false;  
    digitalWrite(BUTTON_LED, LOW); // Turn off the built-in LED  
    fill_solid(leds, NUM_LEDS, CRGB::Black); // Turn off all LEDs  
    FastLED.show();  
}
```

```
void setLedColor(CRGB color, int delayMs = 0) {  
    fill_solid(leds, NUM_LEDS, color);  
    FastLED.show();  
    if (delayMs > 0) {  
        delay(delayMs);  
        fill_solid(leds, NUM_LEDS, CRGB::Black);  
        FastLED.show();  
    }  
}
```