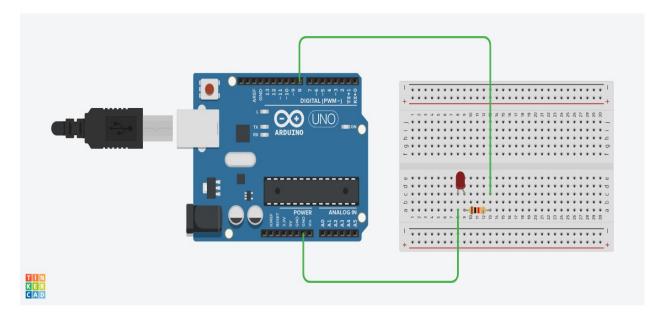
# 1. LED blink



```
#define LED_PIN 8

void setup()

fundamed (LED_PIN, OUTPUT);

pinMode (LED_PIN, OUTPUT);

void loop()

digitalWrite (LED_PIN, HIGH);

delay(1000);

digitalWrite (LED_PIN, LOW);

delay(1000);

delay(1000);

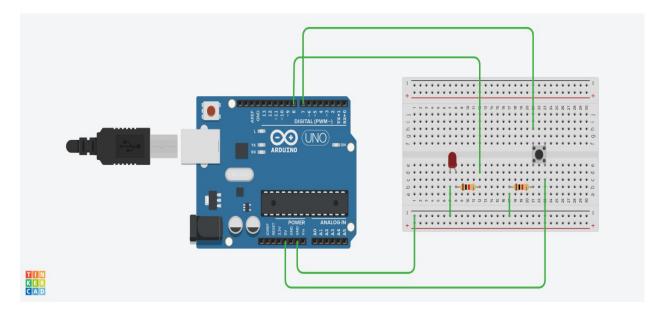
delay(1000);

delay(1000);

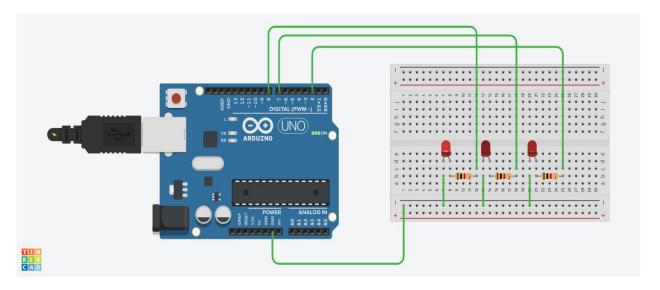
delay(1000);

delay(1000);
```

## 2. Pushbutton + LED

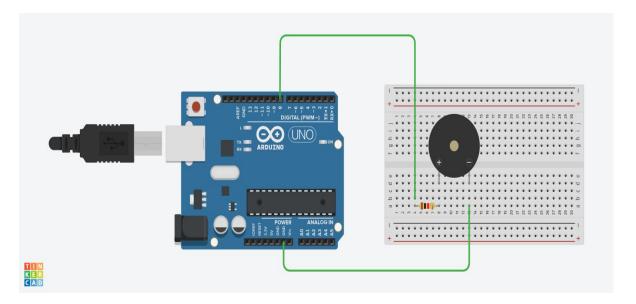


```
1 #define LED PIN 8
 2 #define BUTTON PIN 7
 3 int buttonReading = 0;
 4 void setup()
 5 {
 6
    pinMode(LED PIN, OUTPUT);
    pinMode(BUTTON_PIN, INPUT);
10 void loop()
11 {
   buttonReading = digitalRead(BUTTON PIN);
12
13
    if(buttonReading == HIGH)
14
       digitalWrite(LED PIN, HIGH);
15
     else
16
       digitalWrite(LED PIN, LOW);
17 }
```



```
1 #define LED PIN1 8
 2 #define LED PIN2 7
3 #define LED_PIN3 2
4
5 void setup()
7 pinMode(LED_PIN1, OUTPUT);
8 pinMode(LED_PIN2, OUTPUT);
9 pinMode(LED_PIN3, OUTPUT);
10 }
11
12 void loop()
13 {
14 digitalWrite(LED_PIN1, HIGH);
15 delay(1000);
16 digitalWrite(LED PIN1, LOW);
   digitalWrite(LED_PIN2, HIGH);
17
18 delay(1000);
19 digitalWrite(LED PIN2, LOW);
20 digitalWrite(LED PIN3, HIGH);
   delay(1000);
21
22
   digitalWrite(LED PIN3, LOW);
23 }
```

# 4. Buzzer



```
#define BUZZER_PIN 8

void setup()

fundame (BUZZER_PIN, OUTPUT);

void loop()

tone(BUZZER_PIN, 1000);

delay(1000);

noTone(BUZZER_PIN);

delay(1000);

delay(1000);

delay(1000);

delay(1000);

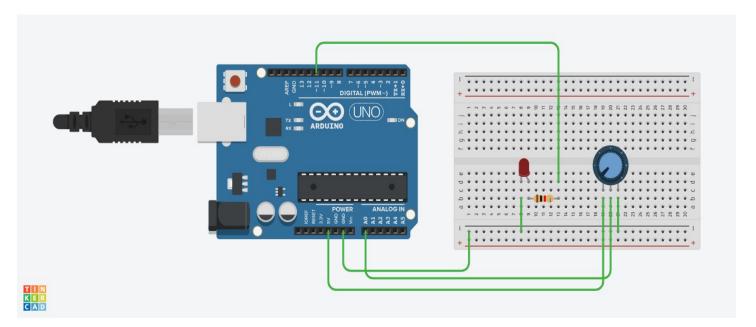
delay(1000);

delay(1000);

delay(1000);

delay(1000);
```

# 5. Potentiometer + LED



```
#define LED_PIN 11
#define POT_PIN A0

void setup()

pinMode(LED_PIN, OUTPUT);

serial.begin(9600);

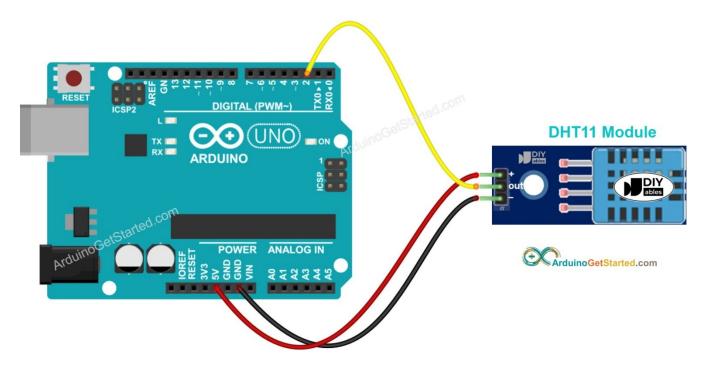
void loop()

int pot_val = analogRead(POT_PIN);

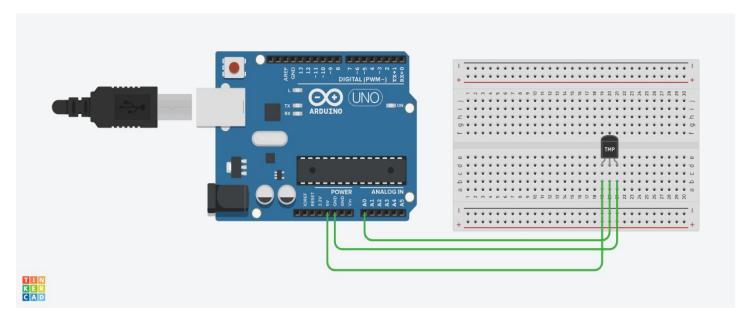
int brightness = pot_val / 4;

analogWrite(LED_PIN, brightness);

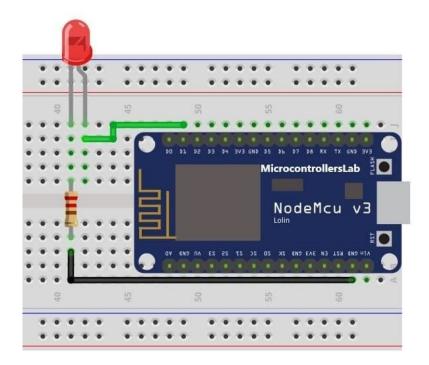
analogWrite(LED_PIN, brightness);
```



```
1 #include "DHT.h"
 2 #define DHT PIN 2
 3 #define DHTTYPE DHT11
4 DHT dht(DHT_PIN, DHTTYPE);
6 void setup()
7 {
8
    Serial.begin(9600);
9
   dht.begin();
10 }
11
12 void loop()
13 {
     float h = dht.readHumidity();
14
    float t = dht.readTemperature();
15
     float f = dht.readTemperature(true);
16
17
    float hi = dht.computeHeatIndex(f,h);
18
19
     Serial.print("Humidity: ");
20
     Serial.print(h);
     Serial.print("%\t");
21
     Serial.print("Temperature: ");
22
23
    Serial.print(t);
24
    Serial.print(" C\t");
25
    Serial.print(f);
    Serial.print(" F\t");
26
27
    Serial.print("Heat Index: ");
28
     Serial.print(hi);
29 }
```



```
1 #define LM35 PIN A1
 3 void setup()
   Serial.begin(9600);
 6 }
 8 void loop()
int temp_adc_val = analogRead(LM35_PIN);
int temp_val = temp_adc_val * 4.88;
12
    temp val = temp val/10;
13
14
    Serial.print("Temperature: ");
15
    Serial.print(temp_val);
    Serial.print(" *Celsius\n");
16
     delay(1000);
17
18 }
```



```
#define LED_PIN 8

void setup()

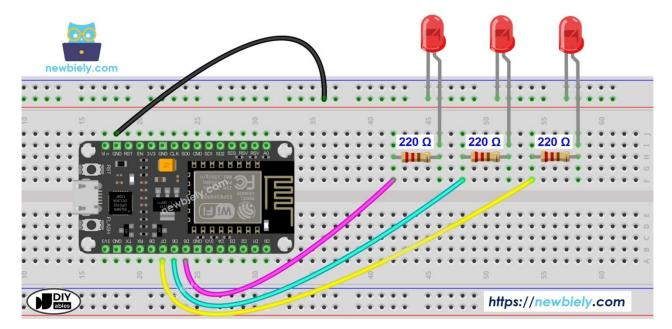
{
  pinMode(LED_PIN, OUTPUT);

}

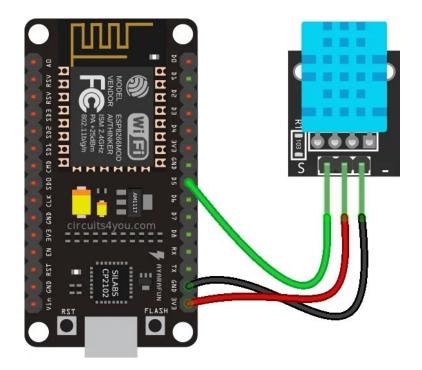
void loop()

{
  digitalWrite(LED_PIN, HIGH);
  delay(1000);
  digitalWrite(LED_PIN, LOW);
  delay(1000);
}
```

# 9. NodeMCU + 3 LEDs



```
1 #define LED PIN1 8
 2 #define LED PIN2 7
3 #define LED PIN3 2
5 void setup()
6 {
7
   pinMode(LED PIN1, OUTPUT);
8 pinMode(LED_PIN2, OUTPUT);
    pinMode(LED PIN3, OUTPUT);
9
10 }
11
12 void loop()
13 {
14 digitalWrite(LED PIN1, HIGH);
15 delay(1000);
   digitalWrite(LED_PIN1, LOW);
16
17
   digitalWrite(LED PIN2, HIGH);
18 delay(1000);
19 digitalWrite(LED PIN2, LOW);
20 digitalWrite(LED_PIN3, HIGH);
21
   delay(1000);
22
   digitalWrite(LED PIN3, LOW);
23 }
```



```
1 #include "DHT.h"
 2 #define DHT PIN 2
 3 #define DHTTYPE DHT11
4 DHT dht(DHT_PIN, DHTTYPE);
6 void setup()
7 {
8
    Serial.begin(9600);
9
    dht.begin();
10 }
11
12 void loop()
13 {
    float h = dht.readHumidity();
14
    float t = dht.readTemperature();
15
    float f = dht.readTemperature(true);
16
17
    float hi = dht.computeHeatIndex(f,h);
18
    Serial.print("Humidity: ");
19
20
    Serial.print(h);
21
    Serial.print("%\t");
22
     Serial.print("Temperature: ");
23
     Serial.print(t);
    Serial.print(" C\t");
24
25
    Serial.print(f);
    Serial.print(" F\t");
26
    Serial.print("Heat Index: ");
27
28
     Serial.print(hi);
29 }
```