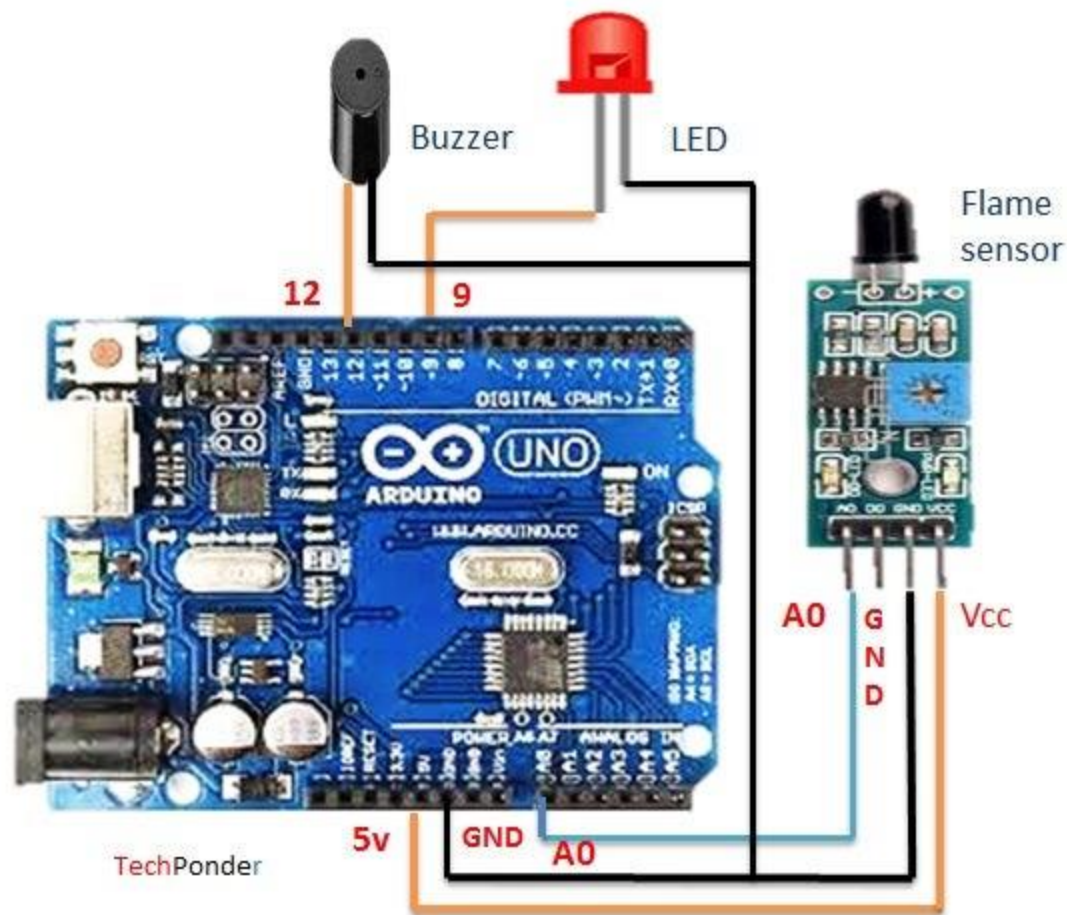


FLAME SENSOR



Flame Detection using Arduino

Flame sensor is interfaced to arduino to detect Flame. Led and buzzer are interfaced to arduino to indicate the flame.

HARD WARE COMPONENTS REQUIRED:-

- 1) Flame sensor (Analogue Output)
- 2) Arduino
- 3) Bread board
- 4) LED
- 5) Buzzer
- 6) Connecting wires

HARD WARE CONNECTIONS



Flame sensor interfacing to arduino

Flame sensor to Arduino

vcc -> vcc

gnd -> gnd

A0 -> A0

Led interfacing to Arduino

LED +ve is connected to 9th pin of Arduino

LED -ve is connected to gnd pin of arduino

For detailed description regarding led interfacing refer the below link

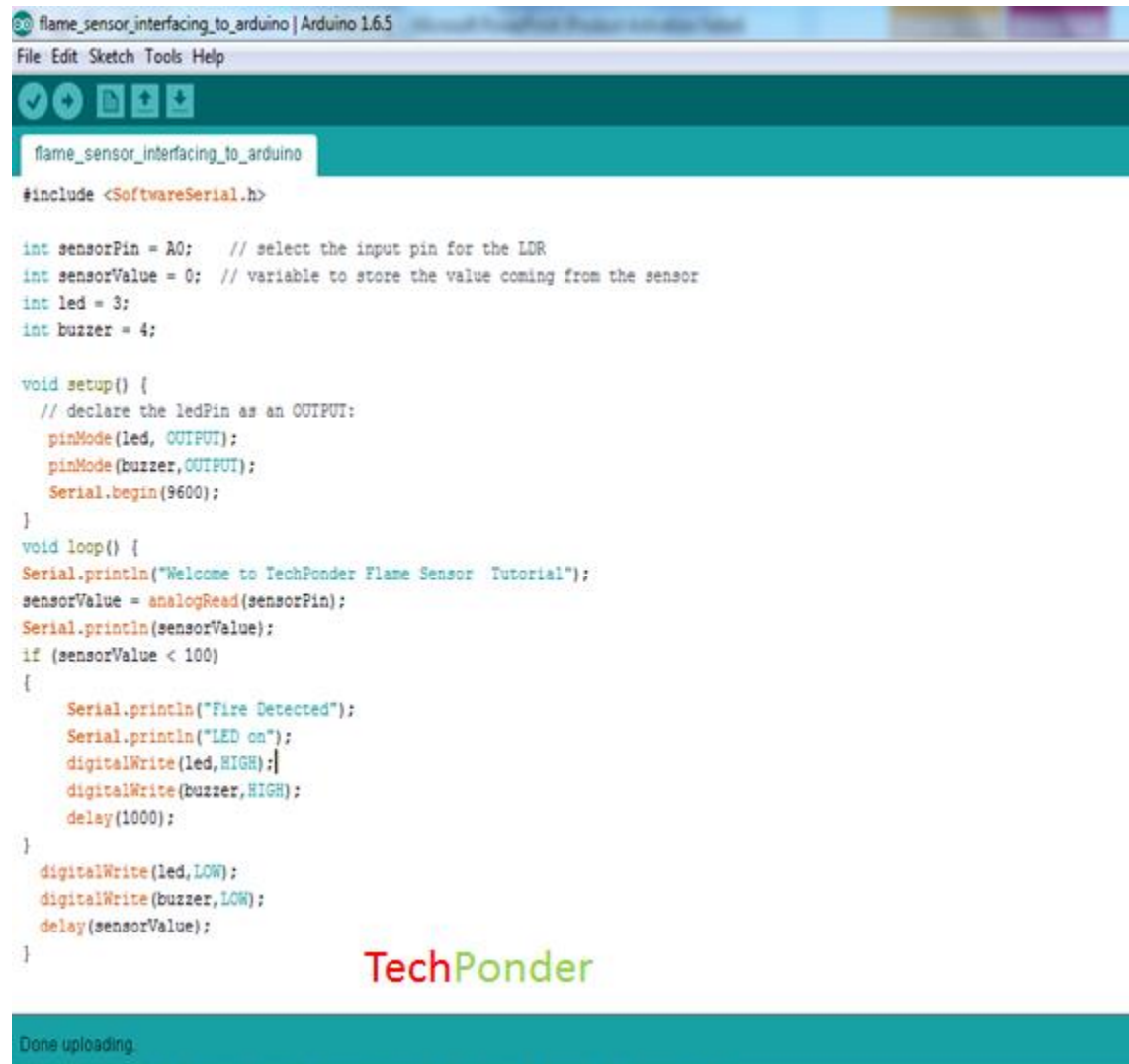
<https://www.instructables.com/id/LED-blinking-using-Arduino/>

Buzzer interfacing to Arduino

Buzzer +ve is connected to 12th pin of Arduino

Buzzer -ve is connected to GND pin of Arduino

PROGRAMMING



```
flame_sensor_interfacing_to_arduino | Arduino 1.6.5
File Edit Sketch Tools Help

flame_sensor_interfacing_to_arduino

#include <SoftwareSerial.h>

int sensorPin = A0;    // select the input pin for the LDR
int sensorValue = 0;   // variable to store the value coming from the sensor
int led = 3;
int buzzer = 4;

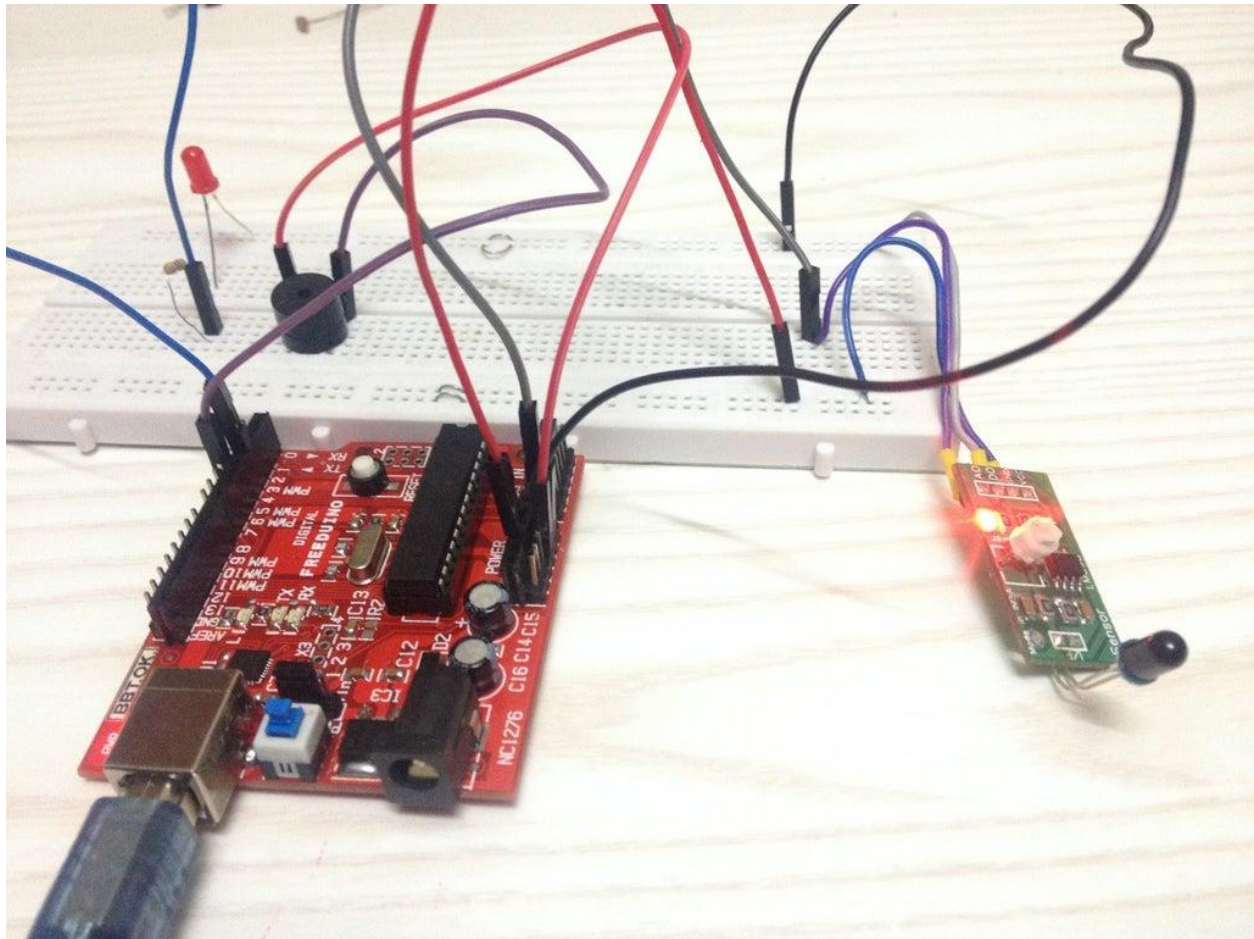
void setup() {
  // declare the ledPin as an OUTPUT:
  pinMode(led, OUTPUT);
  pinMode(buzzer, OUTPUT);
  Serial.begin(9600);
}

void loop() {
  Serial.println("Welcome to TechPonder Flame Sensor Tutorial");
  sensorValue = analogRead(sensorPin);
  Serial.println(sensorValue);
  if (sensorValue < 100)
  {
    Serial.println("Fire Detected");
    Serial.println("LED on");
    digitalWrite(led, HIGH);
    digitalWrite(buzzer, HIGH);
    delay(1000);
  }
  digitalWrite(led, LOW);
  digitalWrite(buzzer, LOW);
  delay(sensorValue);
}
```

TechPonder

Done uploading.

RESULTS



Results are displayed on the serial window.

When there is Flame the LED and Buzzer automatically ON and when there is no flame amount Arduino automatically turns off LED and Buzzer.

Here based on our room condition the threshold value we took was 100 for the Flame sensor.

When we place a Flame Near Flame Sensor Arduino automatically turns on the LED and Buzzer. When we remove Flame from the flame sensor Arduino automatically Turns Off LED and buzzer.