```
#define SENSOR_PIN 2

#define BUZZER_PIN 3

#define RELAY_PIN 4

#define SPRINKLER_START_DELAY 5000  //5 seconds

#define SPRINKLER_ON_TIME 3000      //3 seconds Sprinkler on time


unsigned long previousTime = millis();


void setup()

{

  pinMode(RELAY_PIN, OUTPUT);

  pinMode(SENSOR_PIN, INPUT);

}


void loop()

{

  //If there is fire then the sensor value will be LOW else the value will be HIGH

  int sensorValue = digitalRead(SENSOR_PIN);


  //There is fire

  if (sensorValue == LOW)

  {

    analogWrite(BUZZER_PIN, 50);                    //Turn on buzzer


    if (millis() - previousTime > SPRINKLER_START_DELAY)  //We will wait for few seconds before sprinkler can be started once fire is detected.

    {
```

```
    digitalWrite(RELAY_PIN, LOW);                //Relay is low level triggered relay so we need to
write LOW to switch on the light
    delay(SPRINKLER_ON_TIME);                    //Keep sprinkler on for sometime.
   }
  }
  else
  {
   analogWrite(BUZZER_PIN, 0);
   digitalWrite(RELAY_PIN, HIGH);
   previousTime = millis();
  }
}
```