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#include <DHT.h>

#define FLAME_SENSOR_PIN 2      // Digital pin for flame sensor
#define DHTPIN 4                // Digital pin for DHT sensor
#define DHTTYPE DHT11           // DHT 11
#define BUZZER_PIN 5            // Pin for buzzer

DHT dht(DHTPIN, DHTTYPE);

void setup() {
  Serial.begin(9600);
  pinMode(FLAME_SENSOR_PIN, INPUT);
  pinMode(BUZZER_PIN, OUTPUT);
  dht.begin();
  Serial.println("Smart Fire Detection System Initialized");
}

void loop() {
  int flameDetected = digitalRead(FLAME_SENSOR_PIN);
  float temperature = dht.readTemperature();

  if (isnan(temperature)) {
    Serial.println("Failed to read from DHT sensor!");
    return;
  }

  Serial.print("Temperature: ");
  Serial.print(temperature);
  Serial.println(" °C");

  if (flameDetected == LOW || temperature > 50) {
    // Fire condition assumed if flame is detected or temp > threshold
    Serial.println("[FIRE] Fire Detected! [FIRE]");
    digitalWrite(BUZZER_PIN, HIGH);
    // Add code here to notify via WiFi/IoT if needed
  } else {
    Serial.println("No fire detected.");
    digitalWrite(BUZZER_PIN, LOW);
  }

  delay(2000); // Wait 2 seconds before next check
}

```