

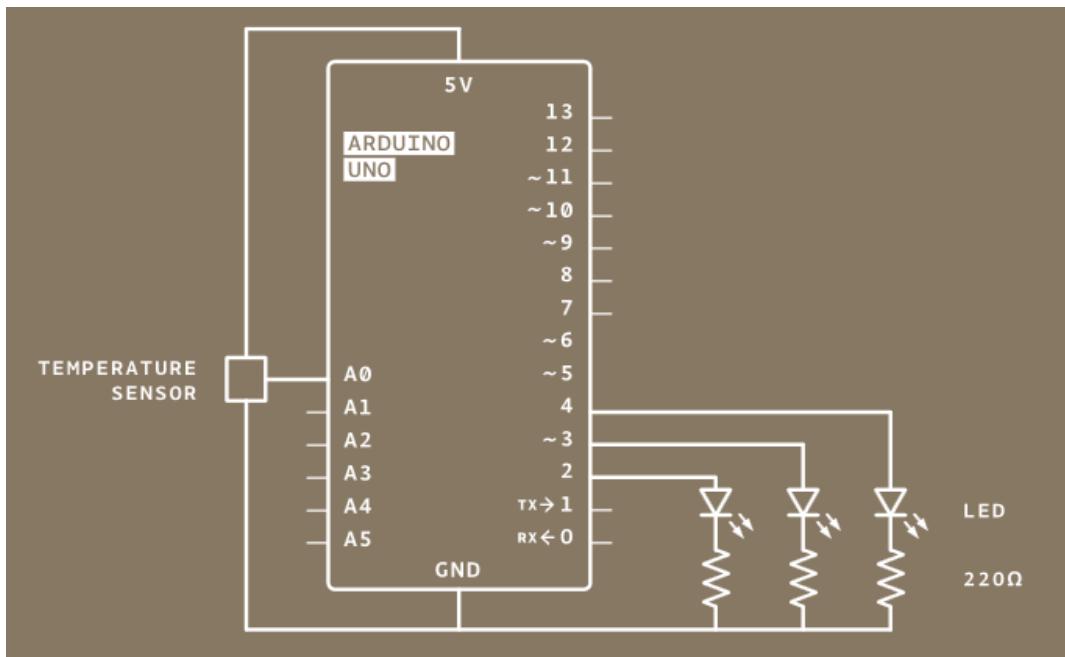
Download Arduino IDE:

<https://www.arduino.cc/en/software/>

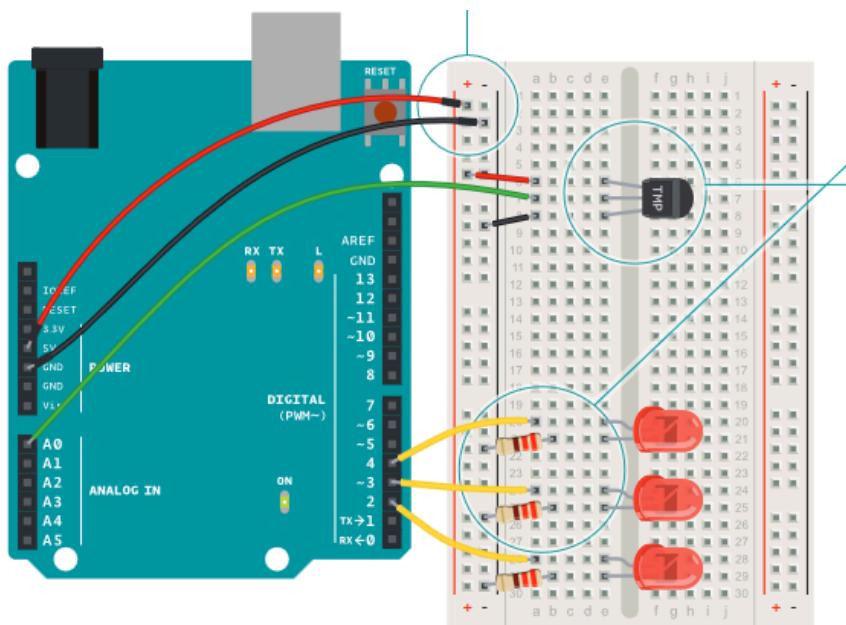
Video Guide:

[https://www.youtube.com/watch?v=UwTFfa\\_f4-0](https://www.youtube.com/watch?v=UwTFfa_f4-0)

Schematic:



What it should look similar to:



Code:

```
const int sensor_pin = A0;
const float baseline_temp = 20.0;

void setup() {
    // Serial.begin(9600);
    for(int i = 3; i < 6; i++){
        pinMode(i, OUTPUT);
        digitalWrite(i, LOW);
    }
}

void loop() {
    int sensor_val = analogRead(sensor_pin); //reading sensor

    // Serial.print("Sensor Value: \n");
    // Serial.print(sensor_val);
    // Serial.print("\n");

    float voltage = (sensor_val/1024.0) * 5.0; // calculating voltage
    // Serial.print("Voltage: \n");
    // Serial.print(voltage);
    // Serial.print("\n");

    float temperature = (voltage - .5) * 100; // calculating temperature

    // Serial.println(temperature);
    // Serial.println(" celcius\n");

    // conditionals for LEDS
    if(temperature < (baseline_temp + 2)){
        for(int i = 3; i < 6; i++){
            digitalWrite(i, LOW);
        }
    }
    else if((baseline_temp + 2) <= temperature && temperature < (baseline_temp + 5)){
        digitalWrite(3, HIGH);
        digitalWrite(4, LOW);
        digitalWrite(5, LOW);
    }
}
```

```
        }
    else if((baseline_temp + 5) <= temperature && temperature < (baseline_temp + 8)){
        digitalWrite(3, HIGH);
        digitalWrite(4, HIGH);
        digitalWrite(5, LOW);
    }
else{
    digitalWrite(3, HIGH);
    digitalWrite(4, HIGH);
    digitalWrite(5, HIGH);
}

delay(1); // one millisecond delay for analog input
}
```