

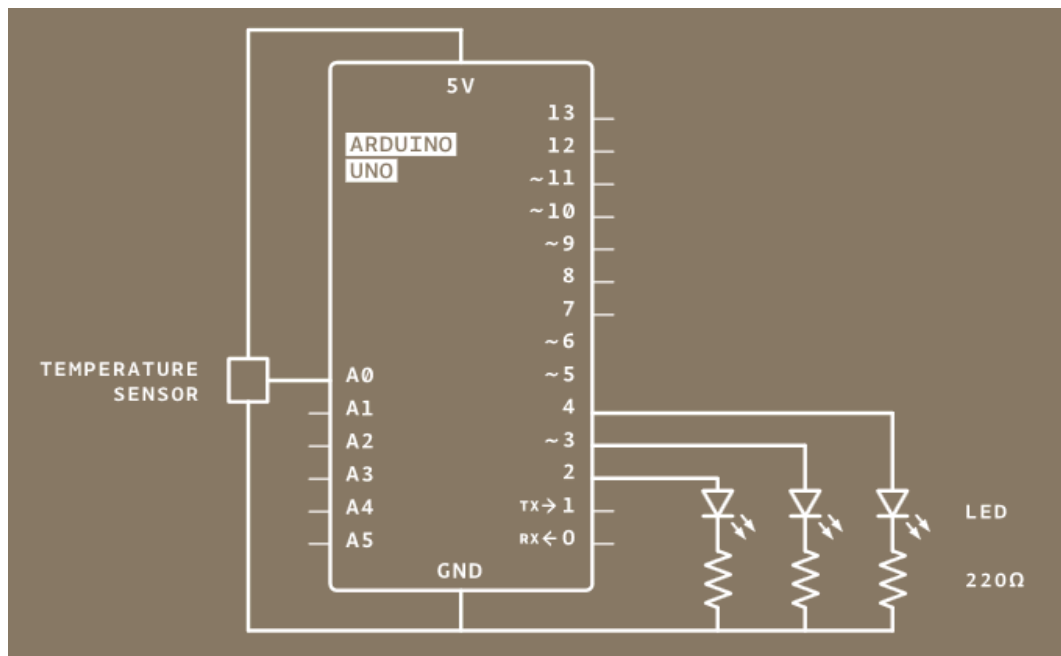
Download Arduino IDE:

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

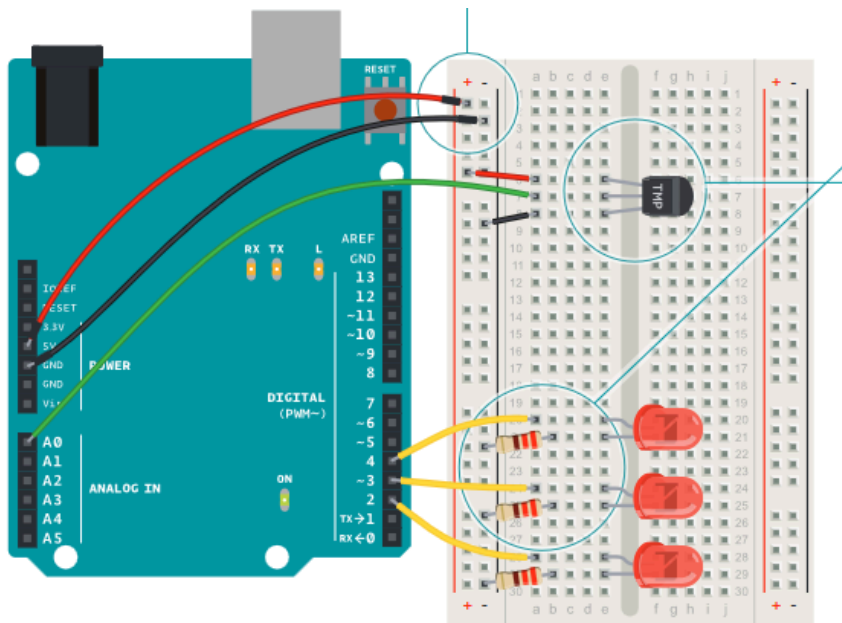
Video Guide:

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  
}
```