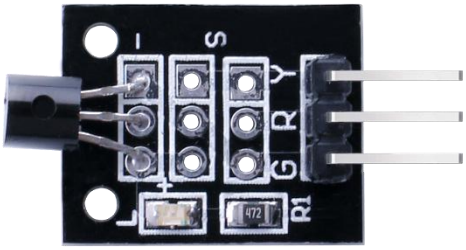
# DS18B20 Temperature Sensor Module

## DESCRIPTION:

This module is temperature sensor with chipDS18B20, It's different from other NTC- MF523950 temperature sensor(ST1147) or LM35 temperature sensor(SE039).




## Specification:

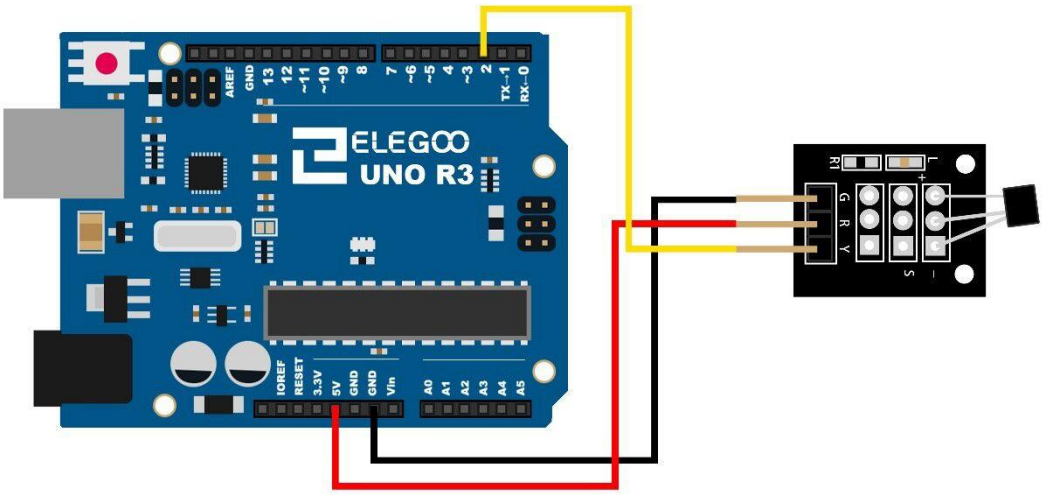
- **Chip :** DS18B20
- **Temperature Range** : -55℃~+125℃
- **Accpply :** +/-0.5℃
- **Supply voltage :** 5V DC

## PIN CONFIGURATION:

1、 "S": Analog output pin,real-time output voltage signal
2、 "R" : +5V
3、 "G" :GND

## Example:

This is a simple code for the DS18B20 temperature module, Wire as below:

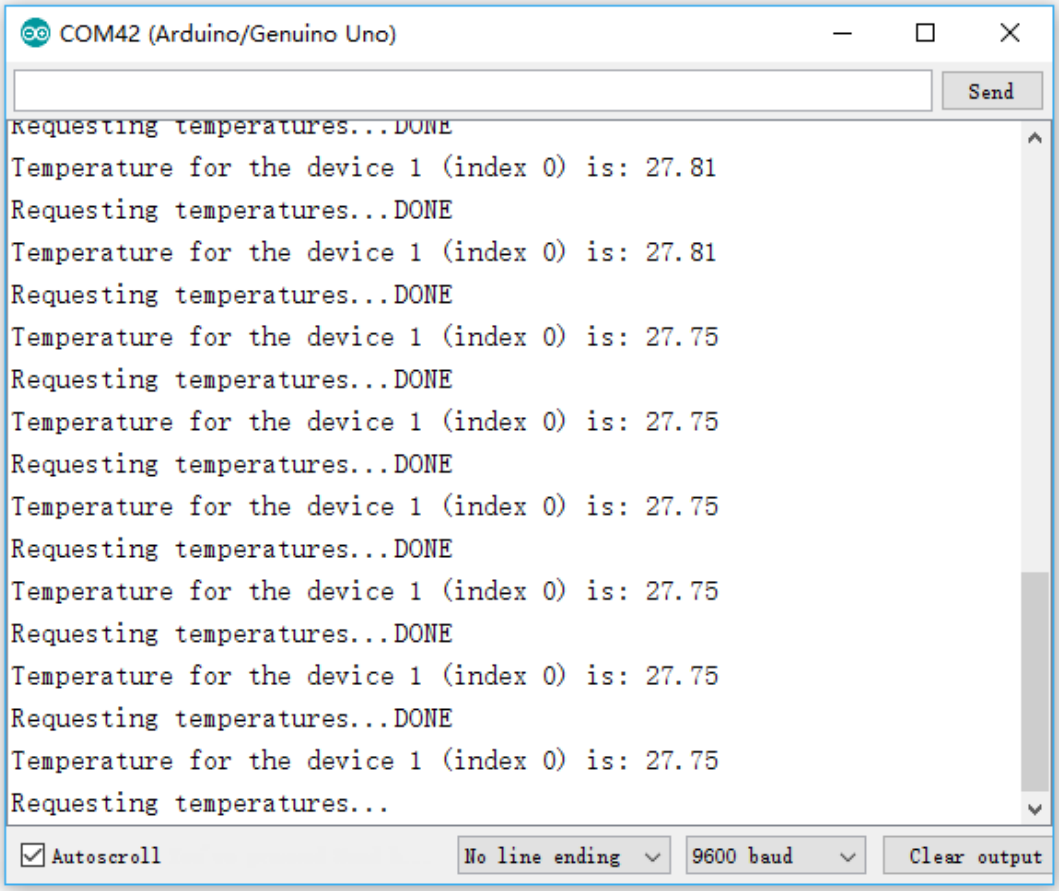



## Code:

```
// Include the libraries we need
#include <OneWire.h>
#include <DallasTemperature.h>

// Data wire is plugged into port 10 on the Arduino
#define ONE_WIRE_BUS 10

// Setup a oneWire instance to communicate with any OneWire devices (not just Maxim/Dallas temperature ICs)
OneWire oneWire(ONE_WIRE_BUS);

// Pass our oneWire reference to Dallas Temperature.
DallasTemperature sensors(&oneWire);

/*
 * The setup function. We only start the sensors here
```

```
 */
void setup(void)
{
   // start serial port
   Serial.begin(9600);
   Serial.println("Dallas Temperature IC Control Library Demo");

   // Start up the library
   sensors.begin();
}

/*
 * Main function, get and show the temperature
 */
void loop(void)
{
   // call sensors.requestTemperatures() to issue a global temperature
   // request to all devices on the bus
   Serial.print("Requesting temperatures...");
   sensors.requestTemperatures(); // Send the command to get temperatures
   Serial.println("DONE");
   // After we got the temperatures, we can print them here.
   // We use the function ByIndex, and as an example get the temperature from the
first sensor only.
   Serial.print("Temperature for the device 1 (index 0) is: ");
   Serial.println(sensors.getTempCByIndex(0));
}
```

**Result:**


COM42 (Arduino/Genuino Uno)
Send
Requesting temperatures...DONE
Temperature for the device 1 (index 0) is: 27.81
Requesting temperatures...DONE
Temperature for the device 1 (index 0) is: 27.81
Requesting temperatures...DONE
Temperature for the device 1 (index 0) is: 27.75
Requesting temperatures...DONE
Temperature for the device 1 (index 0) is: 27.75
Requesting temperatures...DONE
Temperature for the device 1 (index 0) is: 27.75
Requesting temperatures...DONE
Temperature for the device 1 (index 0) is: 27.75
Requesting temperatures...DONE
Temperature for the device 1 (index 0) is: 27.75
Requesting temperatures...DONE
Temperature for the device 1 (index 0) is: 27.75
Requesting temperatures...
Autoscroll
No line ending
9600 baud
Clear output