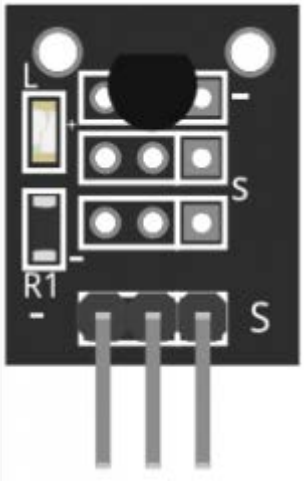
Temperature Sensor Module



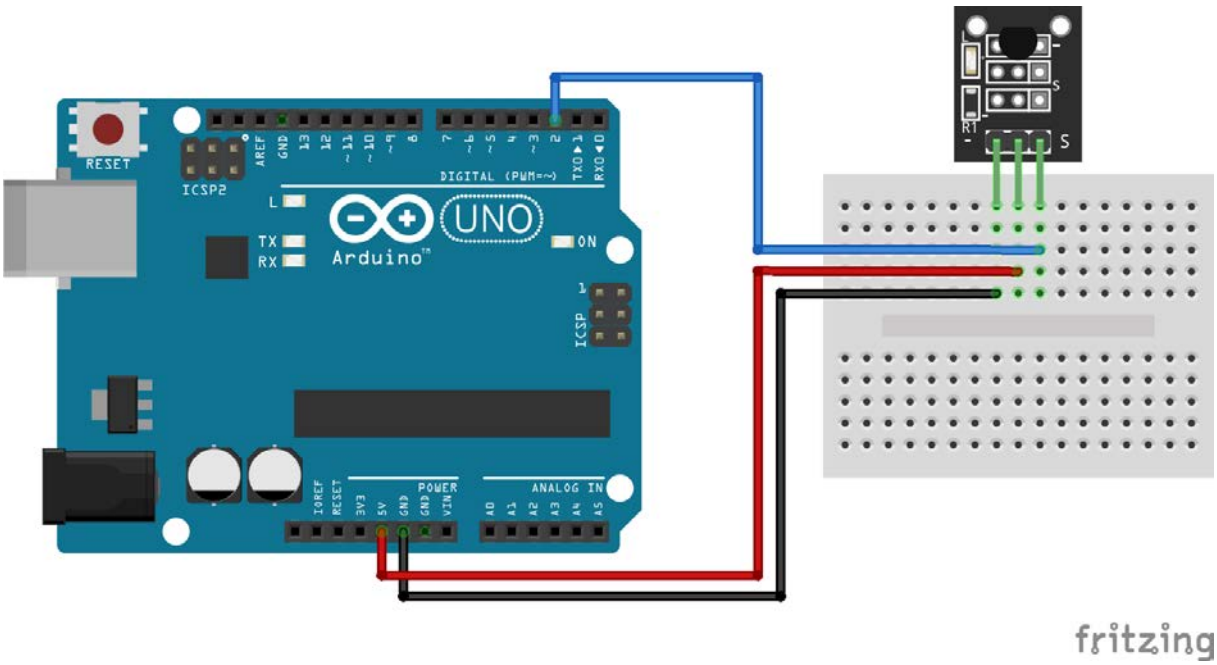
The temperature sensor module allows ambient temperature measurement using digital serial bus.

Temperature Sensor Module consists of a DS18B20 single-bus digital temperature sensor, a LED and a resistor. It's compatible with popular electronics platforms like Arduino, Raspberry Pi and Esp8266.

Operating Voltage	3.0V to 5.5V
Temperature	-55°C to 125°C [-57°F to 257°F]
Measurement Accuracy	±0.5°C
Dimensions	18.5mm x 15mm [0.728in x 0.591in]

Pinout and Connection to Arduino

Connect the Power line (middle) and ground (-) to +5 and GND respectively. Connect signal (S) to pin 2 on the Arduino.



Arduino Example Sketch

The following Arduino sketch will use the OneWire library to serially communicate with the sensor and output the temperature via the serial monitor.

```
#include <OneWire.h>
#include <DallasTemperature.h>

// Data wire is plugged into pin 2 on the Arduino
#define ONE_WIRE_BUS 2

// 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);

void setup(void)
{
  // start serial port
  Serial.begin(9600);
  Serial.println("Dallas Temperature IC Control Library Demo");
  // Start up the library
  sensors.begin();          // IC Default 9 bit.
                            // If you have troubles consider upping it 12.
                            // Ups the delay giving the IC more time to process
                            // the temperature measurement
}

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");

  Serial.print("Temperature for Device 1 is: ");
  Serial.print(sensors.getTempCByIndex(0));
  // Why "byIndex"?
  // You can have more than one IC on the same bus.
  // 0 refers to the first IC on the wire
}
```