Temperature Sensor – Waterproof (DS18B20)

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Sensor: Temperature Sensor

Definitions from SparkFun

- This sealed digital temperature probe lets you precisely measure temperatures in wet environments with a simple 1-Wire interface. The DS18B20 provides 9 to 12-bit (configurable) temperature readings over a 1-Wire interface, so that only one wire (and ground) needs to be connected from a central microprocessor.

Actuator: RGB LED

- Ever hear of a thing called RGB? Red, Green, Blue? How about an RGB LED? These 5mm units have four pins - Cathode is the longest pin. One for each color and a common cathode. Use this one LED for three status indicators or pulse width modulate all three and get mixed colors!

Temperature Sensor

https://www.sparkfun.com/products/11050

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Temperature Sensor - Waterproof (DS18B20)

SEN-11050 RoHS✓

Description: This sealed digital temperature probe lets you precisely measure temperatures in wet environments with a simple 1-Wire interface. The DS18B20 provides 9 to 12-bit (configurable) temperature readings over a 1-Wire interface, so that only one wire (and ground) needs to be connected from a central microprocessor.

Dimensions: Probe is 7mm in diameter and roughly 26mm long. Overall length (including wire) is 6 feet.

Features:

- 3.0-5.5V input voltage
- Waterproof
- -55°C to+125°C temperature range
- ±0.5°C accuracy from -10°C to +85°C
- 1 Wire interface

Documents:

- Datasheet (DS18B20)
- mbed Example
- Bildr Tutorial

$9.95

Add to Cart

1	quantity
●	554 in stock
$9.95	price
$8.96	10+ units
$7.96	100+ units

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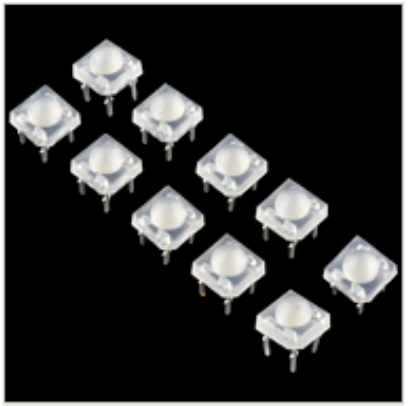
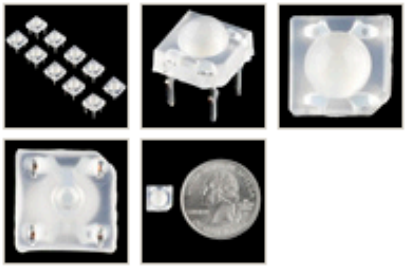
RGB LED Piranha

https://www.sparkfun.com/products/10390





LED - RGB Piranha 5mm (10 pack)

COM-10390 RoHS✓

Description: These RGB LEDs fit nicely into PCBs or breadboards because of their square shape. They are common cathode and pretty bright for their size. Check datasheet below for voltage drops.

Check the diagram below for hookup instructions.

Note: These are sold in packs of 10.

Features:

- Red - 400-700mcd
- Green - 1000-1500mcd
- Blue - 400-500mcd

Documents:

- Datasheet
- Schematic

$9.95

Backorder

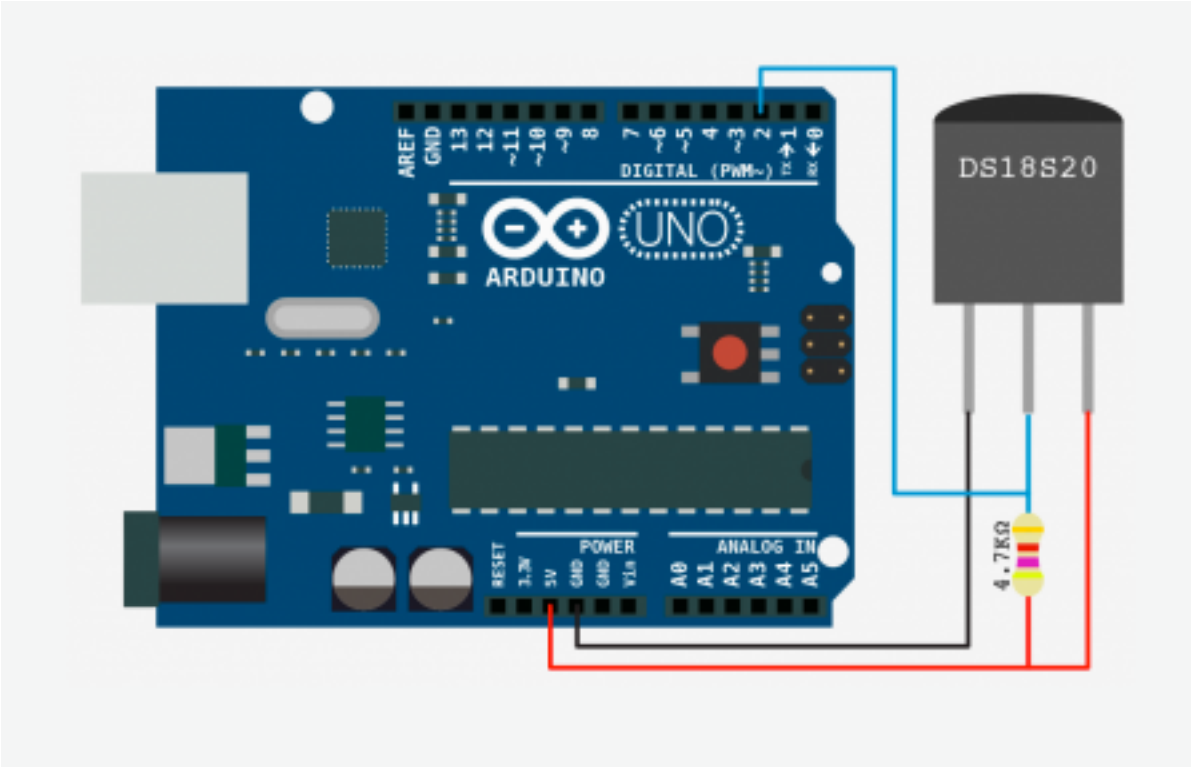
1	quantity
	Out of stock
$9.95	**price**
$8.96	10+ units
$7.96	100+ units

Add to Wish List

Autonotify

Attaching the Temperature Sensor to the Arduino

*Use Pin 3!



http://bildr.org/2011/07/ds18b20-arduino/

But, when would you use this?

We used it to measure the temperature of coffee to check to see if it is too hot to drink.

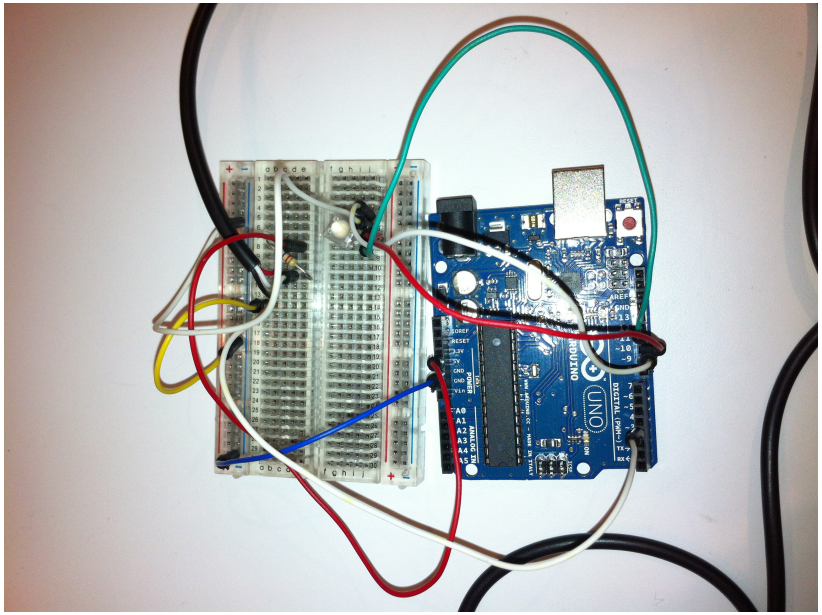
To measure the temperature of liquids – inside or outside

If you need to leave it outside for an extended period of time

Safety: Baby bottles and baby water

To alert if the temperature changes

For any temperature measurements



Here is our coffee tester code:

code source: http://www.nuelectronics.com/download/projects/ds18b20.pde