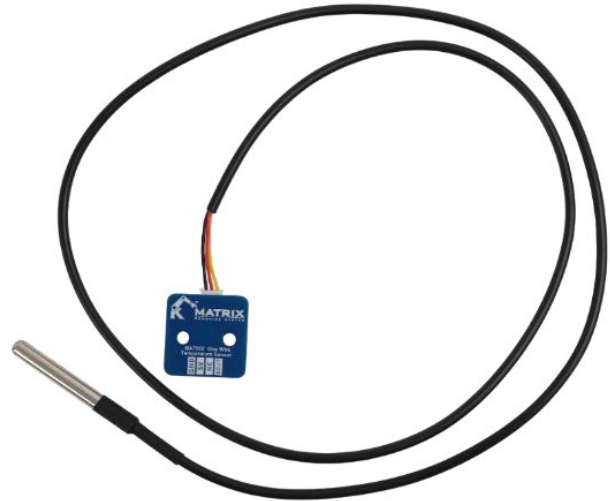


1. Feature

- Enhanced Accuracy and Precision.
- Low Power Consumption.
- Waterproof.

2. Application

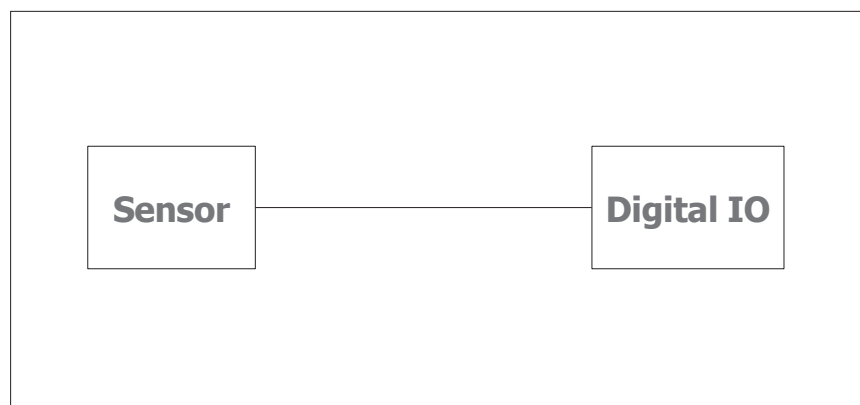
- Home automation.
- Easy to Use



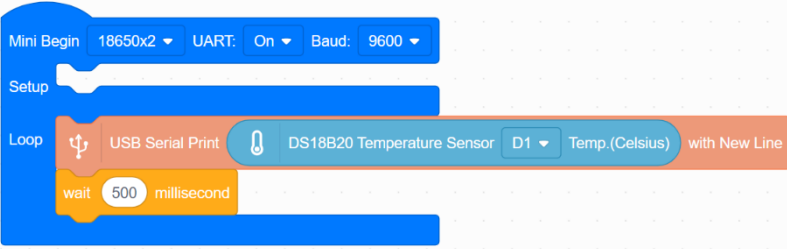
3. Introduction

The MATRIX Temperature Sensor (one wire, DS18B20, waterproof) 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. Compatible with 3.0-5.5V systems.

4. Block Diagram



4. Example Code of Block and C++



The block diagram shows the following setup:

- Mini Begin:** 18650x2, UART, On, Baud: 9600
- Setup:** (Empty)
- Loop:**
 - USB Serial Print
 - DS18B20 Temperature Sensor
 - D1 (Dropdown)
 - Temp. (Celsius)
 - with New Line
 - wait 500 millisecond

```

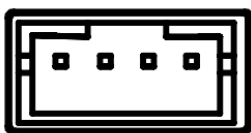
1  #include "MatrixMiniR4.h"
2
3  void setup()
4  {
5      MiniR4.begin();
6      MiniR4.PWR.setBattCell(2);
7      Serial.begin(9600);
8  }
9
10 void loop()
11 {
12     Serial.println(MiniR4.D1.MXOnewireDT.requestAndGetTemp());
13     delay(500);
14 }
15

```

- After download program into controller, open Serial Monitor to observe.

5. Hardware Spec

- Voltage: 3.3v – 5v
- Temperature range: -55 ~ 125°C



1 4

JST PH2.0

Pinout-Digital Out			
NO.	Name	I/O	Description
1	DOUT	I/O	Digital output
2	NC	-	NC
3	5V	O	Supply voltage
4	GND	-	Supply ground

- For More technical info of Sensor, Please visit [manufacturer datasheet](#).