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SHT1x Humidity and Temperature Sensor (SKU: DFR0066)

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Contents

Introduction

This is uses *SHT1x sensor*. SHT1x is individually calibrated in a precision humidity chamber. The calibration coefficients are programmed into an OTP memory on the chip. These coefficients are used to internally calibrate the signals from the sensors. The 2-wire serial interface and internal voltage regulation allows for easy and fast system integration. The tiny size and low power consumption makes SHT1x the ultimate choice for even the most demanding applications.
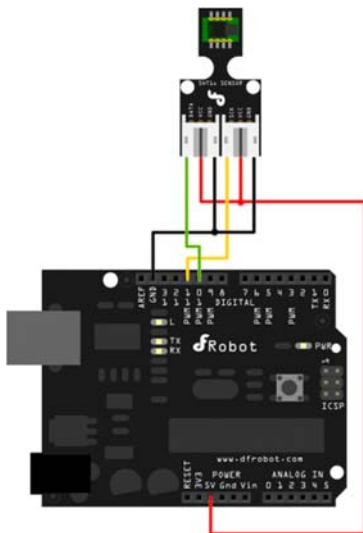
Specifition

- 2 factory calibrated sensors for relative humidity & temperature
- Digital 2-wire interface
- Precise dewpoint calculation possible
- Measurement range: 0-100% RH
- Absolute RH accuracy: +/- 2% RH (10...90% RH)
- Repeatability RH: +/- 0.1% RH
- Temp. accuracy: +/- 0.3°C @ 25°C
- Fast response time < 4 sec.
- Low power consumption (typ. 30 μW)
- Low cost
- High precision sensor at low cost
- Leading CMOSens Technology for superior long-term stability

Applications

- Precise data logging
- Transmitters
- Automation & process control
- Building control and HVAC
- Test & Measurement
- Medical

connecting diagram

Sample Code

```
//Arduino Sample Code for SHT1x Humidity and Temperature Sensor
//www.DFRobot.com
//Version 1.0

#include <SHT1x.h>

// Specify data and clock connections and instantiate SHT1x object
#define dataPin  10
#define clockPin 11
SHT1x sht1x(dataPin, clockPin);

void setup()
{
   Serial.begin(38400); // Open serial connection to report values to host
   Serial.println("Starting up");
}

void loop()
{
  float temp_c;
  float temp_f;
  float humidity;

  // Read values from the sensor
  temp_c = sht1x.readTemperatureC();
  temp_f = sht1x.readTemperatureF();
  humidity = sht1x.readHumidity();

  // Print the values to the serial port
  Serial.print("Temperature: ");
  Serial.print(temp_c, DEC);
  Serial.print("C / ");
```

```
    Serial.print(temp_f, DEC);
    Serial.print("F. Humidity: ");
    Serial.print(humidity);
    Serial.println("%");


    delay(2000);
}
```