Arduino and SHT31 module

SHT31 is the next generation of Sensirion's temperature and humidity sensors. It builds on a new CMOSens® sensor chip that is at the heart of Sensirion's new humidity and temperatureplatform.

The SHT3x-DIS has increased intelligence, reliability and improved accuracy specifications compared to its predecessor. Its functionality includes enhanced signal processing, two distinctive and user selectable I2C addresses and communication speeds of up to 1 MHz. The DFN package has a footprint of 2.5 x 2.5 mm2 while keeping a height of 0.9 mm.

This allows for integration of the SHT3x-DIS into a great variety of applications.

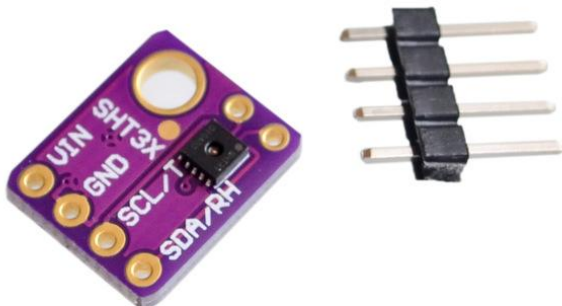**LIBRARY: https://github.com/adafruit/Adafruit_SHT31**

Features

Fully calibrated, linearized, and temperature compensated digital output
Wide supply voltage range, from 2.4 V to 5.5 V
I2C Interface with communication speeds up to 1 MHz and two user selectable addresses
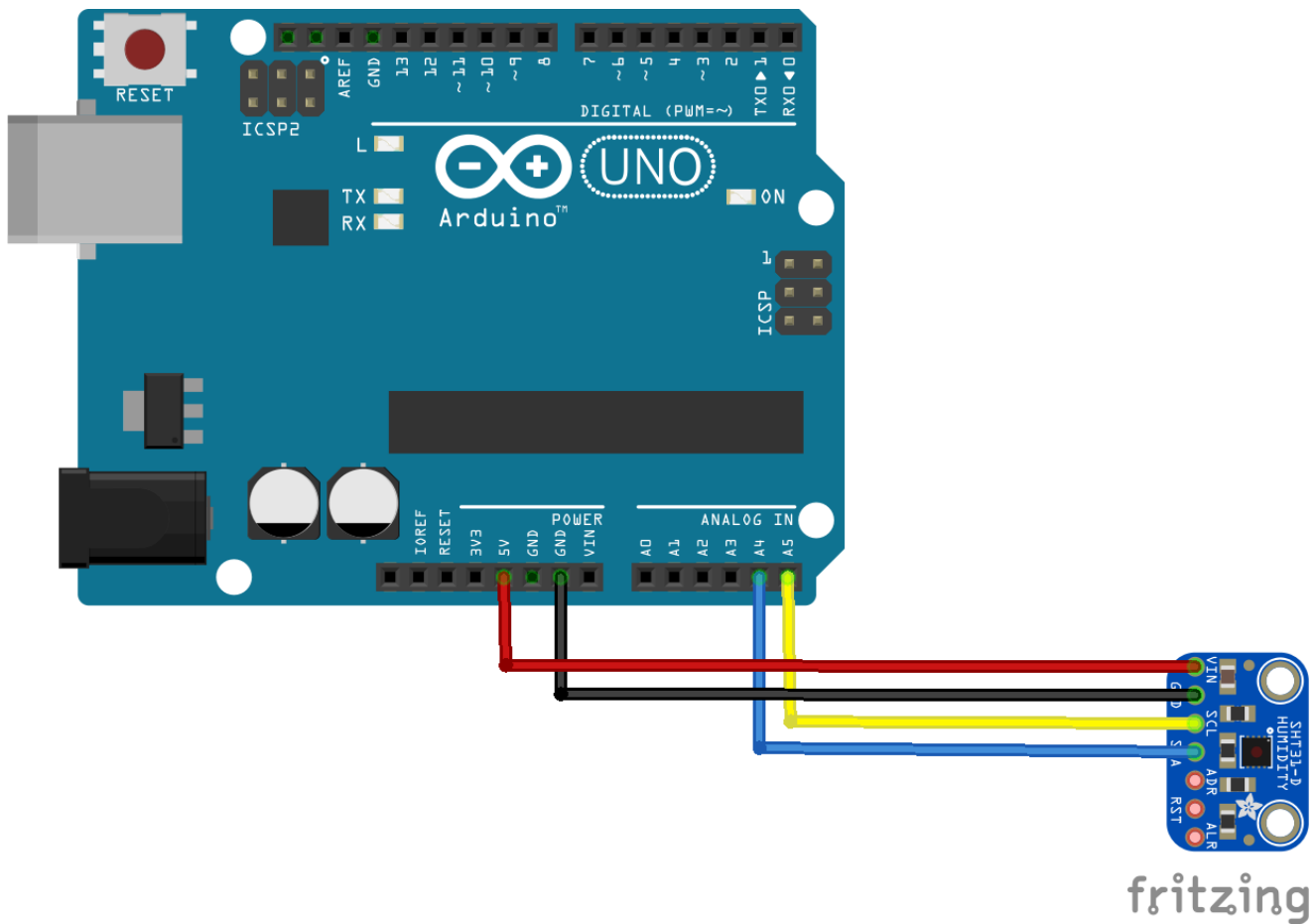
I bought the following module

If you're using an Arduino simply connect the VIN pin to the 5V voltage pin, GND to ground, SCL to I2C Clock (Analog 5) and SDA to I2C Data (Analog 4).

Here is a layout drawn up in fritzing to illustrate thsi

Layout

Code

This example uses the adafruit sht31 library – https://github.com/adafruit/Adafruit_SHT31

Source code

```
#include <Arduino.h>
#include <Wire.h>
#include "Adafruit_SHT31.h"

Adafruit_SHT31 sht31 = Adafruit_SHT31();


void setup()
{
  Serial.begin(9600);
  if (! sht31.begin(0x44))
  {
    Serial.println("Couldn't find SHT31");
    while (1) delay(1);
  }
}


void loop()
{
  float t = sht31.readTemperature();
  float h = sht31.readHumidity();

  if (! isnan(t))
```

```
  {
    Serial.print("Temp *C = "); Serial.println(t);
  }
  else
  {
    Serial.println("Failed to read temperature");
  }

  if (! isnan(h))
  {
    Serial.print("Hum. % = "); Serial.println(h);
  }
  else
  {
    Serial.println("Failed to read humidity");
  }
  Serial.println();
  delay(1000);
}
```