# XC4494 Analog Temperature Module

The XC4494 Analog Temperature Module consists of a thermistor (which is a resistor which changes resistance with temperature) and a resistor to make a voltage divider, which can be used to get an analog voltage from VCC and GND. There's a complicated relationship between temperature and the analog value read, but the included sketch includes a function you can copy to your own sketch to make it easier.

Pin	Duinotech Pin	Function	Comment
VCC	5V	5V supply	Supplies power to the module
OUT	A0	Analog output	Analog output from voltage divider.
GND	GND	Ground connection	Ground connection

There are no libraries needed for this module.
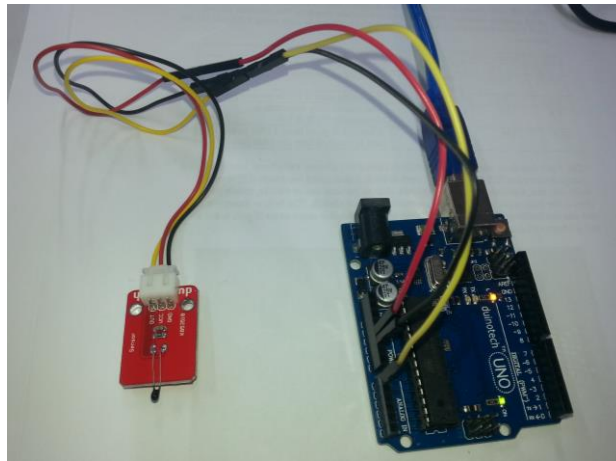
The below example sketch reads the temperature of the thermistor and prints it out to the serial port.

Sample Code:

```
#include <math.h>
double Thermister(int RawADC) {
double Temp;
Temp = log(((10240000/RawADC) - 10000));
Temp = 1 / (0.001129148 + (0.000234125 + (0.0000000876741 * Temp * Temp ))* Temp );
Temp = Temp - 273.15; // Convert Kelvin to Celcius
return Temp;
}
void setup() {
Serial.begin(9600);
}
void loop()
 { Serial.println(Thermister(analogRead(0))); // display Fahrenheit Serial.println("c");
 delay(500); }
```