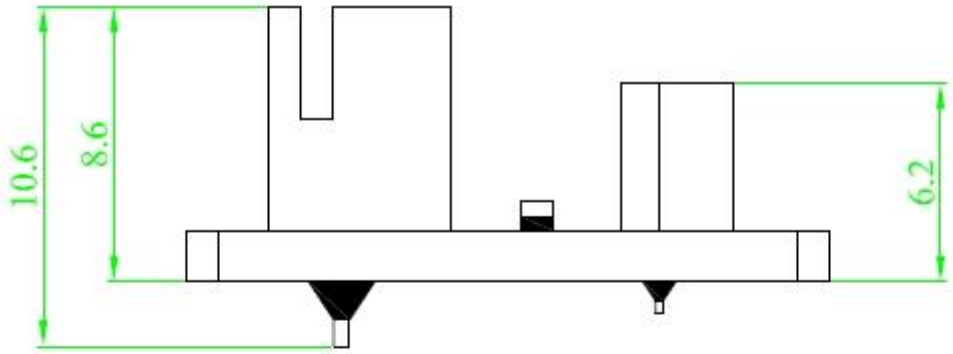
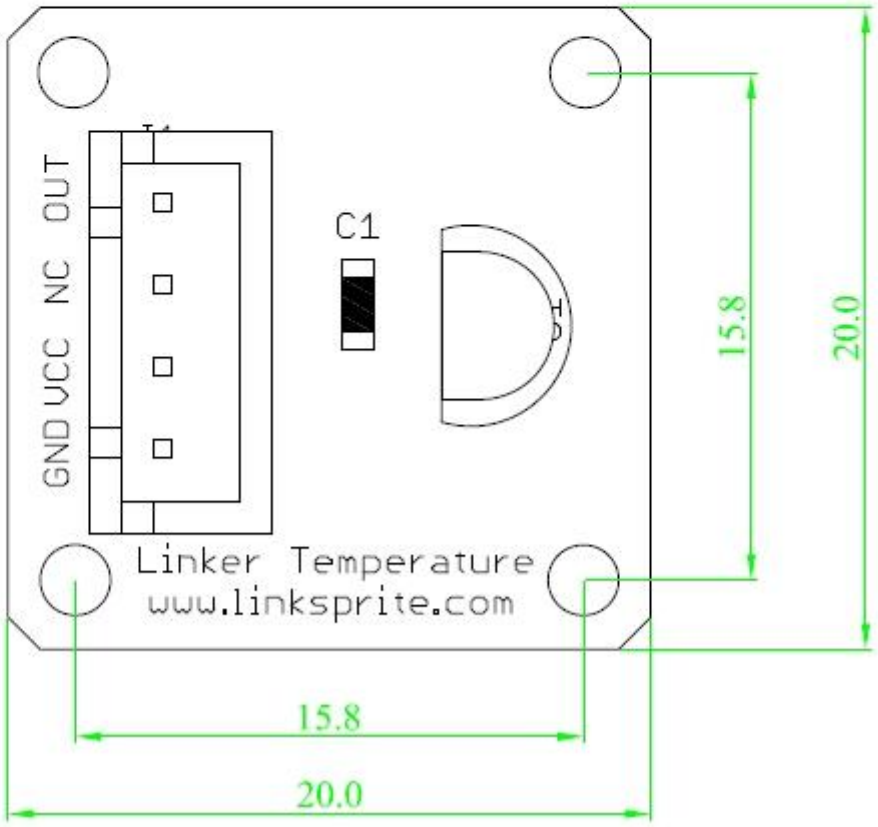
Thermal Module

Introduction

The Linker Thermal Module uses a Thermistor to detect the ambient temperature. The resistance of a thermistor will increase when the ambient temperature decreases. It's this characteristic that we use to calculate the ambient temperature.


10.6
8.6
6.2


GND VCC NC OUT
C1
Linker Temperature
www.linksprite.com
15.8
20.0
15.8
20.0

Application Ideas

```
//TMP36 Pin Variables
int sensorPin = 0; //the analog pin the TMP36's Vout (sense) pin is
connected to
                        //the resolution is 10 mV / degree centigrade with
a
                        //500 mV offset to allow for negative temperatures

/*
 * setup() - this function runs once when you turn your Arduino on
 * We initialize the serial connection with the computer
 */
void setup()
{
  Serial.begin(9600);  //Start the serial connection with the computer
                       //to view the result open the serial monitor
}

void loop()                     // run over and over again
{
 //getting the voltage reading from the temperature sensor
 int reading = analogRead(sensorPin);

 // converting that reading to voltage, for 3.3v arduino use 3.3
 float voltage = reading * 5.0;
 voltage /= 1024.0;

 // print out the voltage
 Serial.print(voltage); Serial.println(" volts");

 // now print out the temperature
 float temperatureC = (voltage - 0.5) * 100 ;  //converting from 10 mv per
degree wit 500 mV offset
                                               //to degrees ((volatge -
500mV) times 100)
 Serial.print(temperatureC); Serial.println(" degrees C");

 // now convert to Fahrenheight
 float temperatureF = (temperatureC * 9.0 / 5.0) + 32.0;
 Serial.print(temperatureF); Serial.println(" degrees F");

 delay(1000);                                    //waiting a second
}
```