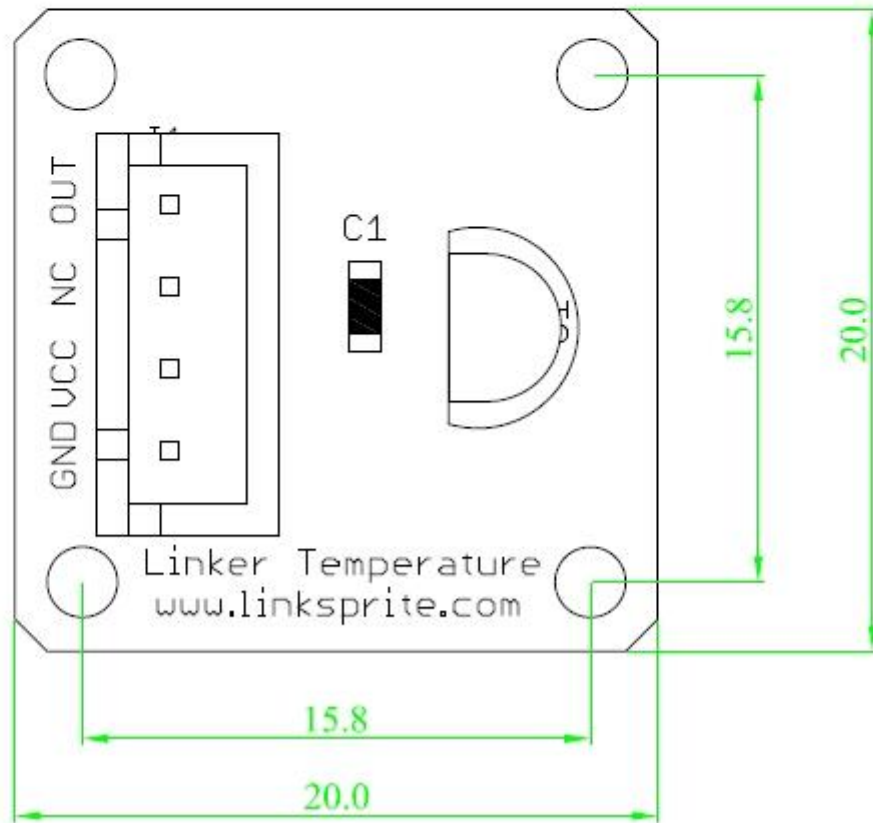
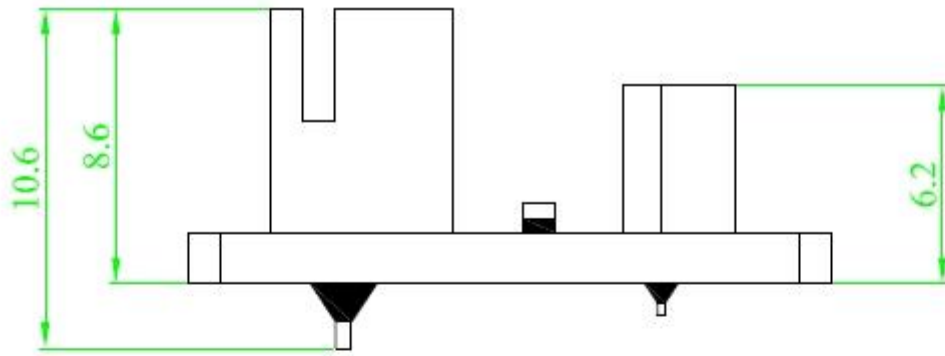


Thermal Module

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.





Application Ideas

```
//TMP36 Pin Variables
int sensorPin = 0; //the analog pin the TMP36's Vout (sense) pin is
connected to
a //the resolution is 10 mV / degree centigrade with
//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 ((voltage -
  500mV) times 100)
  Serial.print(temperatureC); Serial.println(" degrees C");

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

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

