//www.elegoo.com

//2016.12.9

#include <LiquidCrystal.h>

int tempPin = 0;

// BS E D4 D5 D6 D7

LiquidCrystal lcd(7, 8, 9, 10, 11, 12);

void setup()

{

lcd.begin(16, 2);

}

void loop()

{

int tempReading = analogRead(tempPin);

// This is OK

double tempK = log(10000.0 \* ((1024.0 / tempReading - 1)));

tempK = 1 / (0.001129148 + (0.000234125 + (0.0000000876741 \* tempK \* tempK )) \* tempK ); // Temp Kelvin

float tempC = tempK - 273.15; // Convert Kelvin to Celcius

float tempF = (tempC \* 9.0)/ 5.0 + 32.0; // Convert Celcius to Fahrenheit

/\* replaced

float tempVolts = tempReading \* 5.0 / 1024.0;

float tempC = (tempVolts - 0.5) \* 10.0;

float tempF = tempC \* 9.0 / 5.0 + 32.0;

\*/

// Display Temperature in C

lcd.setCursor(0, 0);

lcd.print("Temp C ");

// Display Temperature in F

//lcd.print("Temp F ");

lcd.setCursor(6, 0);

// Display Temperature in C

lcd.print(tempC);

// Display Temperature in F

//lcd.print(tempF);

delay(500);

}