#include<LiquidCrystal.h>

LiquidCrystal lcd(6,7,8,9,10,11); //rs,e,d4,d5,d6,d7

int Vin=5; //voltage at 5V pin of arduino

float Vout=0; //voltage at A0 pin of arduino

float R1=5100; //value of known resistance

float R2=0; //value of unknown resistance

int a2d\_data=0;

float buffer=0;

const int green = 3;

const int yellow = 4;

const int red = 5;

void setup()

{

pinMode (green, OUTPUT);

pinMode (yellow, OUTPUT);

pinMode (red, OUTPUT);

}

void loop()

{

a2d\_data=analogRead(A0);

if(a2d\_data)

{

buffer=a2d\_data\*Vin;

Vout=(buffer)/1024.0;

buffer=Vout/(Vin-Vout);

R2=R1\*buffer;

lcd.setCursor(4,0);

lcd.print("ohm meter");

lcd.setCursor(0,1);

lcd.print("R (ohm) = ");

lcd.print(R2);

delay(1000);

}

if (R2 >9000) {

digitalWrite(3, HIGH);

digitalWrite (4, LOW);

digitalWrite (5, LOW);}

if (R2 < 9000 && R2 > 2000){

digitalWrite(3, LOW);

digitalWrite (4, HIGH);

digitalWrite (5, LOW);}

if (R2 <1000) {

digitalWrite(3, LOW);

digitalWrite (4, LOW);

digitalWrite (5, HIGH);

}

}