#include <LiquidCrystal.h>

LiquidCrystal lcd(8, 9, 10, 11, 12, 13);

#define DT A0

#define SCK A1

#define sw 2

long sample=0;

float val=0;

long count=0;

unsigned long readCount(void)

{

unsigned long Count;

unsigned char i;

pinMode(DT, OUTPUT);

digitalWrite(DT,HIGH);

digitalWrite(SCK,LOW);

Count=0;

pinMode(DT, INPUT);

while(digitalRead(DT));

for (i=0;i<24;i++)

{

digitalWrite(SCK,HIGH);

Count=Count<<1;

digitalWrite(SCK,LOW);

if(digitalRead(DT))

Count++;

}

digitalWrite(SCK,HIGH);

Count=Count^0x800000;

digitalWrite(SCK,LOW);

return(Count);

}

void setup()

{

Serial.begin(9600);

pinMode(SCK, OUTPUT);

pinMode(sw, INPUT\_PULLUP);

lcd.begin(16, 2);

lcd.print(" Weight ");

lcd.setCursor(0,1);

lcd.print(" Measurement ");

delay(1000);

lcd.clear();

calibrate();

}

void loop()

{

count= readCount();

int w=(((count-sample)/val)-2\*((count-sample)/val));

Serial.print("weight:");

Serial.print((int)w);

Serial.println("g");

lcd.setCursor(0,0);

lcd.print("Weight ");

lcd.setCursor(0,1);

lcd.print(w);

lcd.print("g ");

if(digitalRead(sw)==0)

{

val=0;

sample=0;

w=0;

count=0;

calibrate();

}

}

void calibrate()

{

lcd.clear();

lcd.print("Calibrating...");

lcd.setCursor(0,1);

lcd.print("Please Wait...");

for(int i=0;i<100;i++)

{

count=readCount();

sample+=count;

Serial.println(count);

}