////////////////////////LOAD CELL CODE///////////

#include <LiquidCrystal.h>

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

#include "HX711.h" //You must have this library in your arduino library folder

#define DOUT 3

#define CLK 2

HX711 scale(DOUT, CLK);

//Change this calibration factor as per your load cell once it is found you many need to vary it in thousands

float calibration\_factor = -96650; //-106600 worked for my 40Kg max scale setup

//=============================================================================================

// SETUP

//=============================================================================================

void setup() {

lcd.begin(16, 2);

lcd.print(" Weight ");

lcd.setCursor(0,1);

lcd.print(" Measurement ");

delay(1000);

lcd.clear();

Serial.begin(9600);

Serial.println("HX711 Calibration");

Serial.println("Remove all weight from scale");

Serial.println("After readings begin, place known weight on scale");

Serial.println("Press a,s,d,f to increase calibration factor by 10,100,1000,10000 respectively");

Serial.println("Press z,x,c,v to decrease calibration factor by 10,100,1000,10000 respectively");

Serial.println("Press t for tare");

scale.set\_scale();

scale.tare(); //Reset the scale to 0

long zero\_factor = scale.read\_average(); //Get a baseline reading

Serial.print("Zero factor: "); //This can be used to remove the need to tare the scale. Useful in permanent scale projects.

Serial.println(zero\_factor);

}

//=============================================================================================

// LOOP

//=============================================================================================

void loop() {

scale.set\_scale(calibration\_factor); //Adjust to this calibration factor

lcd.clear();

lcd.setCursor(0,0);

lcd.print("Weight ");

lcd.setCursor(0,1);

lcd.print(scale.get\_units(), 3);

lcd.print("Kg ");

delay(500);

Serial.print("Reading: ");

Serial.print(scale.get\_units(), 3);

Serial.print(" kg"); //Change this to kg and re-adjust the calibration factor if you follow SI units like a sane person

Serial.print(" calibration\_factor: ");

Serial.print(calibration\_factor);

Serial.println();

if(Serial.available())

{

char temp = Serial.read();

if(temp == '+' || temp == 'a')

calibration\_factor += 10;

else if(temp == '-' || temp == 'z')

calibration\_factor -= 10;

else if(temp == 's')

calibration\_factor += 100;

else if(temp == 'x')

calibration\_factor -= 100;

else if(temp == 'd')

calibration\_factor += 1000;

else if(temp == 'c')

calibration\_factor -= 1000;

else if(temp == 'f')

calibration\_factor += 10000;

else if(temp == 'v')

calibration\_factor -= 10000;

else if(temp == 't')

scale.tare(); //Reset the scale to zero

}

}

/////////////////////////END///////////////////////////////