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#include "HX711.h"
#include <Wire.h>
#include<hd44780.h>
#include<hd44780ioClass/hd44780_I2Cexp.h> // include i/o class header
hd44780_I2Cexp lcd;
HX711 scale;

// HX711 circuit wiring
const int LOADCELL_DOUT_PIN = 7;
const int LOADCELL_SCK_PIN = 6;

const float threshold = 0.50; // Set your threshold weight here

void setup() {
    // initialize LCD with number of columns and rows:
    lcd.begin(20, 4);
    lcd.init();
    lcd.backlight();
    // Print a message to the LCD
    lcd.setCursor(0,1);
    lcd.print("Hello,User!");
    delay(1000);
    lcd.clear();

    lcd.setCursor(6,0);
    lcd.print("WELCOME");
    lcd.setCursor(6,1);
    lcd.print("to your");
    lcd.setCursor(3,2);
    lcd.print("Smart Kitchen");
    lcd.setCursor(6,3);
    lcd.print("Cabinet!");
    delay(1000);
    lcd.clear();

    lcd.setCursor(0,0);
    lcd.print("HX711 Demo");
    lcd.setCursor(0,1);

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lcd.print("Initializing the scale");
delay(1000);
lcd.clear();

    lcd.setCursor ( 6,1 );
lcd.print("CONTENTS");
    lcd.setCursor(3, 2);
    lcd.print("are as follows:-");
    delay(1000);
    lcd.clear();

scale.begin(LOADCELL_DOUT_PIN,LOADCELL_SCK_PIN);

    lcd.print("Before setting up the scale:");
    delay(1000);
    lcd.clear();

lcd.setCursor(0,0);
    lcd.print("read: ");
    lcd.setCursor(0,2);
    lcd.print(scale.read());
    delay(1000);
    lcd.clear();

    lcd.setCursor(0,0);
    lcd.print("read average: ");
    lcd.setCursor(0,1);
    lcd.print(scale.read_average(10));
    lcd.setCursor(0,2);
    lcd.print("get value: ");
    lcd.setCursor(0,3);
    lcd.print(scale.get_value(3));
    delay(1000);
    lcd.clear();

    lcd.setCursor(0,0);
    lcd.print("get units: ");
    lcd.setCursor(0,1);
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lcd.print(scale.get_units(3), 1);
delay(1000);
lcd.clear();

scale.set_scale(2280.f);
scale.tare();

lcd.setCursor(0,0);
lcd.print("After setting up the scale:");
delay(1000);
lcd.clear();

lcd.setCursor(0,0);
lcd.print("read: ");
lcd.setCursor(0,2);
lcd.print(scale.read());
delay(1000);
lcd.clear();

lcd.setCursor(0,1);
lcd.print("read average: ");
lcd.setCursor(0,2);
lcd.print(scale.read_average(10));
delay(1000);
lcd.clear();

lcd.setCursor(0,0);
lcd.print("get value: ");
lcd.setCursor(0,1);
lcd.print(scale.get_value(3));
lcd.setCursor(0,2);
lcd.print("get units:");
lcd.setCursor(0,3);
lcd.print(scale.get_units(3), 1);
delay(1000);
lcd.clear();

lcd.setCursor(0,0);
lcd.print("Readings:");
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delay(1000);
  lcd.clear();
}

void loop() {
  lcd.setCursor(0,0);
  lcd.print("a reading:");
  lcd.setCursor(0,1);
  lcd.print(scale.get_units(), 1);
  lcd.setCursor(0,2);
  lcd.print("average:");
  lcd.setCursor(0,3);
  lcd.print(scale.get_units(10), 1);
  delay(5000);
  lcd.clear();
  float weight = scale.get_units(10); // Get weight readings

  lcd.setCursor(0, 0);
  lcd.print("Weight: ");
  lcd.print(weight, 1); // Display weight on LCD

  if (weight < threshold) {
    lcd.setCursor(0, 1);
    lcd.print("Below Threshold");
  } else {
    lcd.setCursor(0, 1);
    lcd.print("Above Threshold");
  }
  delay(1000);
  lcd.clear();
}

```