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

#include <LiquidCrystal.h>

LiquidCrystal lcd(A5, A4, A3, A2, A1, A0);

#define echopin 6 // echo pin

#define trigpin 5 // Trigger pin

#define rl1 9 // LED pin

#define DOUT 3

#define CLK 2

long duration, distance;

HX711 scale(DOUT, CLK);

float calibration\_factor = -206600;

float weight = 0;

int count=0; // a variable to read incoming serial data into

char input[13];

char id1[13]="45003C23207A";

char id2[13]="45003BF3FA77";

int match1=0;

int match2=0;

int point1=0;

int point2=0;

int time = 0;

int mode = 0;

float level1 = 0;

float level2 = 0;

void setup() {

Serial.begin(9600);

lcd.begin(16, 2);

pinMode (trigpin, OUTPUT);

pinMode (rl1, OUTPUT);

pinMode (echopin, INPUT );

scale.set\_scale();

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

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

}

void loop ()

{

scale.set\_scale(calibration\_factor);

weight = scale.get\_units();

if(weight<0)weight=0;

level1 = weight;

if((level1-level2)>0.02)mode=1;

if(mode==0)

{

lcd.clear();

lcd.print("Dust:");

lcd.print(distance);

lcd.setCursor(0, 1);

lcd.print("Weight:");

lcd.print(weight, 3);

digitalWrite(trigpin,LOW);

delayMicroseconds(2);

digitalWrite(trigpin,HIGH);

delayMicroseconds(10);

duration=pulseIn (echopin,HIGH);

distance= duration/58.2;

delay (50);

if(distance<8)

{

digitalWrite(rl1,HIGH);

}

else

{

digitalWrite(rl1,LOW);

}

distance = map(distance, 0, 16, 100, 0);

if(distance>100) distance=100;

}

else

{

lcd.clear();

lcd.print("Scan Your Card");

while(Serial.available() && count < 12)

{

input[count] = Serial.read();

if(input[count]==id1[count])

{

match1++;

}

if(input[count]==id2[count])

{

match2++;

}

count++;

if(count==12)

{

dispence();

count=0;

match1=0;

match2=0;

}

}

}

count=0;

match1=0;

match2=0;

delay(1000);

level2 = level1;

}

void dispence()

{

if(time<(millis()/1000))

{

if(match1==12){

mode=0;

point1 = point1+10;

digitalWrite(rl1,HIGH);

lcd.clear();

lcd.print("User: 1");

lcd.setCursor(0, 1);

lcd.print("Point:");lcd.print(point1);

delay(2000);

digitalWrite(rl1,LOW);

}

else

if(match2==12){

mode=0;

point2 = point2+10;

digitalWrite(rl1,HIGH);

lcd.clear();

lcd.print("User: 2");

lcd.setCursor(0, 1);

lcd.print("Point:");lcd.print(point2);

delay(2000);

digitalWrite(rl1,LOW);

}

else

{

//Serial.println("ID Not Match");

}

time = millis()/1000;

time = time + 5;

}

}