const int basla=3;

const int artir=4;

const int azalt=5;

const int bitir=6;

int baslabasili;

int artirbasili;

int azaltbasili;

int bitirbasili;

const int enba=9;

const int n1=8;

const int n2=7;

const int encoder =2;

unsigned int rpm;

int kademe=0;

const int led=12;

const unsigned long basitzaman=1000;

const int maxRPM = 10200;

#include<Wire.h>

#include<LiquidCrystal\_I2C.h>

LiquidCrystal\_I2C lcd(0X27,16,2);

void setup() {

lcd.begin();

pinMode(basla,INPUT);

pinMode(artir,INPUT);

pinMode(azalt,INPUT);

pinMode(bitir,INPUT);

pinMode(encoder,INPUT);

pinMode(n1,OUTPUT);

pinMode(n2,OUTPUT);

pinMode(enba,OUTPUT);

digitalWrite (n1,HIGH);

digitalWrite (n2,LOW);

pinMode(led,OUTPUT);

lcd.begin();

// Print a message to the LCD.

lcd.print("Lutfen Bekleyiniz");

delay(1000);

lcd.clear();

lcd.setCursor(0,0);

lcd.print("lutfen baslama");

lcd.setCursor(0,1);

lcd.print("tusuna basiniz");

lcd.clear();

delay(1000);

}

void loop() {

while (kademe>=0)

{azaltbasili=digitalRead(azalt);

if (azaltbasili == HIGH)

{kademe=kademe-20 ;

if (kademe<=0)

{kademe=0;}

lcd.clear();

lcd.setCursor(1,0);

lcd.print("kdm:");

lcd.print(kademe);}

if (azaltbasili == HIGH)

{

while (1)

{

azaltbasili = digitalRead(azalt);

if (azaltbasili == LOW)

break;

}

}

break;

}

while (kademe<256)

{artirbasili=digitalRead(artir);

if (artirbasili == HIGH)

{kademe=kademe+20 ;

if (kademe>=255)

{kademe=255;}

lcd.clear();

lcd.setCursor(1,0);

lcd.print("kdm:");

lcd.print(kademe);}

if (artirbasili == HIGH)

{

while (1)

{

artirbasili = digitalRead(artir);

if (artirbasili == LOW)

break;

}

}

break;

}

baslabasili=digitalRead(basla);

if(baslabasili==HIGH){

analogWrite (enba,kademe);}

bitirbasili=digitalRead(bitir);

if(bitirbasili==HIGH)

{analogWrite(enba,0);}

int rpm=getRPM();

displayRPM(rpm);

}

int getRPM()

{

// sample for sampleTime in millisecs

int kount=0;

boolean kflag=LOW;

unsigned long currentTime=0;

unsigned long startTime=millis();

while (currentTime<=basitzaman)

{

if (digitalRead(encoder)==HIGH)

{

kflag=HIGH;

}

if (digitalRead(encoder)==LOW && kflag==HIGH)

{

kount++;

kflag=LOW;

}

currentTime=millis()-startTime;

}

int kount2rpm = int(60000./float(basitzaman))\*kount;

return kount2rpm;

}

void displayRPM(int rpm)

{

lcd.clear();

// set the cursor to column 0, line 1

lcd.setCursor(7, 1);

// print the number of seconds since reset:

lcd.print(rpm,DEC);

if((rpm)==60) //change value to own choice

{

digitalWrite(led,HIGH);

}

else if((rpm)==120) //change value to own choice

{

digitalWrite(led,HIGH);

}

else if((rpm)==180) //Change value to own choice

{

digitalWrite(led,HIGH);

}

else

{

digitalWrite(led,LOW);

}

lcd.setCursor(0,1);

lcd.print("RPM:");

}