

```

/*
by fadilla zennifa , the student of electrical engineering andalas university
*/

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <Keypad.h>

#include <Wire.h>

#include <LiquidCrystal.h>

#include <Password.h>

LiquidCrystal lcd(11, 12, 7, 8, 9, 10);

int tempC;

int tempPin = 0;

const byte ROWS = 4;

const byte COLS = 3;

char keys[ROWS][COLS] =/*
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{{'1','2','3'},

{'4','5','6'},

{'7','8','9'},

{'*','0','#'}};

char tampil[12]={

' ',' ',' ',

' ',' ',' ',

```

```

    '','','',
    '','','');

int keey =0;

int keeys=0;


byte rowPins[ROWS] = {

    5, 4, 3, 2}; //connect to the row pinouts of the keypad

byte colPins[COLS] = {

    8, 7, 6}; // connect to the column pinouts of the keypad

int count=0;

byte fan = 13;


boolean blink = true;


Keypad keypad = Keypad( makeKeymap(keys), rowPins, colPins, ROWS, COLS );

Password password = Password("040691");


void setup() {

    lcd.begin(16, 2);

    pinMode(fan, OUTPUT);

    digitalWrite(fan, LOW);

    lcd.print(" Pengontrol Suhu");

    delay (2000);

    lcd.setCursor(0, 0);

```

```
lcd.clear();

lcd.print("password:");

  keypad.addEventListener(keypadEvent);

keypad.setHoldTime(500);

}
```

```
void loop()

{

char key = keypad.getKey();

char tampil='*';

if (key != NO_KEY)

{

  lcd.print(tampil);

  count++;

  key -= 48; //this is an ASCII offset. converts input values to their integer value

  key = (key * 7) + key; //concatenates each new digit

  keeys=key;

}

if (count==17)

{

  lcd.clear();

  count=0;

}

}

}
```

```

void suhu(){
  lcd.setCursor(0, 0);

  lcd.print("suhu:");

  tempC = analogRead(tempPin);

  tempC = (5.0 * tempC * 100.0)/1024.0;

  lcd.print(tempC);

  lcd.setCursor(0, 1);

  lcd.print("Kontrolsuhu?");

  delay (2000);

  lcd.clear();

  lcd.setCursor(0, 0);

  lcd.print("yes=inputtemp");

  lcd.setCursor(0, 1);

  lcd.print("no=blank");/*

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*/

  delay (2000);

  lcd.clear();

  lcd.setCursor(0, 0);

  lcd.print("suhu:");

  tempC = analogRead(tempPin);

  tempC = (5.0 * tempC * 100.0)/1024.0;

  lcd.print(tempC);/*

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*/

lcd.setCursor(0, 1);

char key = keypad.getKey();

keypad.addEventListener(keypadEvent);/*

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*/

delay (1000);

}

void csuhu(){

  lcd.clear();

  tempC = analogRead(tempPin);

  tempC = (5.0 * tempC * 100.0)/1024.0;

  if(tempC>=keeyes)

{ lcd.setCursor(0, 1);

digitalWrite(13,HIGH);

lcd.print("on");

delay (1000);

tempC = analogRead(tempPin);

  tempC = (5.0 * tempC * 100.0)/1024.0;

  lcd.setCursor(0, 0);

  lcd.print(tempC);

  lcd.setCursor(0, 1);

  lcd.print("on");

```

```

    delay (3000);

    tempC = analogRead(tempPin);

    tempC = (5.0 * tempC * 100.0)/1024.0;

    lcd.setCursor(0, 0);

    lcd.print(tempC);

    lcd.setCursor(0, 1);

    lcd.print("on");

    delay (3000);

    tempC = analogRead(tempPin);

    tempC = (5.0 * tempC * 100.0)/1024.0;

    lcd.setCursor(0, 0);

    lcd.print(tempC);

    lcd.setCursor(0, 1);

    lcd.print("on");

    delay (5000);
}

else if (tempC < keeys)

{ lcd.setCursor(0, 1);

digitalWrite(13, LOW);

lcd.print("off");

}

}

void keypadEvent(KeypadEvent eKey){

switch (keypad.getState()){

case PRESSED:

```

```
Serial.print("Pressed: ");
```

```
Serial.println(eKey);
```

```
switch (eKey){
```

```
    case '*': guessPassword(); break; /*
```

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*/
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```
    default: password.append(eKey);break;
```

```
}
```

```
break;
```

```
case RELEASED:
```

```
    switch (eKey){
```

```
        case '#': csuhu();
```

```
        break;
```

```
    }
```

```
break; /*
```

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```
*/
```

```
case HOLD:
```

```
    switch (eKey){
```

```
        lcd.clear();
```

```
        case '*': blink = true;
```

```
    }
```

```
break; /*
```

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```
*/
```

```
}}
```

```
void guessPassword(){
```

```
    if (password.evaluate())
```

```
    {lcd.clear();
```

```
        lcd.setCursor(0, 0);
```

```
        suhu();
```

```
    }/*
```

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```
*/
```

```
    else {
```

```
        lcd.setCursor(0, 1);
```

```
            lcd.print("ulang!");
```

```
        delay (3000);
```

```
        lcd.clear();
```

```
        password.reset();
```

```
        char key = keypad.getKey();/*
```

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*/
```

```
    setup();}
```

```
}
```