



```

#include"dht.h"                // Including library for dht

#include<LiquidCrystal.h>
LiquidCrystal lcd(14,15,16,17,18,19);

#include<Timer.h>

Timer t;

#include <SoftwareSerial.h>
SoftwareSerial Serial1(2, 3);

#define dht_dpin 12
#define heart 13

dht DHT;

char *api_key="SIWOYBX26OXQ1WMS";    // Enter your Write API key from ThingSpeak

static char postUrl[150];

int humi,tem;

void httpGet(String ip, String path, int port=80);

void setup()
{
    lcd.begin(16, 2);
    lcd.clear();
    lcd.print("  Humidity  ");
    lcd.setCursor(0,1);
    lcd.print("  Measurement ");
    delay(2000);
    lcd.clear();
    lcd.print("Circuit Digest ");
    lcd.setCursor(0,1);

```



```
lcd.print("Welcomes You");  
delay(2000);  
Serial1.begin(9600);  
Serial.begin(9600);  
lcd.clear();  
lcd.print("WIFI Connecting");  
lcd.setCursor(0,1);  
lcd.print("Please wait....");  
Serial.println("Connecting Wifi....");  
connect_wifi("AT",1000);  
connect_wifi("AT+CWMODE=1",1000);  
connect_wifi("AT+CWQAP",1000);  
connect_wifi("AT+RST",5000);  
connect_wifi("AT+CWJAP=\"1st floor\", \"muda1884\"",10000);  
Serial.println("Wifi Connected");  
lcd.clear();  
lcd.print("WIFI Connected.");  
pinMode(heart, OUTPUT);  
delay(2000);  
t.oscillate(heart, 1000, LOW);  
t.every(20000, send2server);  
}  
  
void loop()  
{  
    DHT.read11(dht_dpin);  
    lcd.setCursor(0,0);
```

```

    lcd.print("Humidity: ");
    humi=DHT.humidity;
    lcd.print(humi);    // printing Humidity on LCD
    lcd.print(" %    ");
    lcd.setCursor(0,1);
    lcd.print("Temperature:");
    tem=DHT.temperature;
    lcd.print(tem);    // Printing temperature on LCD
    lcd.write(1);
    lcd.print("C    ");
    delay(1000);
    t.update();
}

void send2server()
{
    char tempStr[8];
    char humidStr[8];
    dtostrf(tem, 5, 3, tempStr);
    dtostrf(humi, 5, 3, humidStr);
    sprintf(postUrl, "update?api_key=%s&field1=%s&field2=%s",api_key,humidStr,tempStr);
    httpGet("api.thingspeak.com", postUrl, 80);
}

//GET https://api.thingspeak.com/update?api_key=SIWOYBX26OXQ1WMS&field1=0

void httpGet(String ip, String path, int port)
{
    int resp;

```



```

String atHttpGetCmd = "GET /"+path+" HTTP/1.0\r\n\r\n";
//AT+CIPSTART="TCP","192.168.20.200",80
String atTcpPortConnectCmd = "AT+CIPSTART=\"TCP\", \""+ip+"\", "+port+"";
connect_wifi(atTcpPortConnectCmd,1000);
int len = atHttpGetCmd.length();
String atSendCmd = "AT+CIPSEND=";
atSendCmd+=len;
connect_wifi(atSendCmd,1000);
connect_wifi(atHttpGetCmd,1000);
}

void connect_wifi(String cmd, int t)
{
    int temp=0,i=0;
    while(1)
    {
        lcd.clear();
        lcd.print(cmd);
        Serial.println(cmd);
        Serial1.println(cmd);
        while(Serial1.available())
        {
            if(Serial1.find("OK"))
            {
                i=8;
            }
        }
        delay(t);
        if(i>5)

```



```
    i=8;
}
delay(t);
if(i>5)
break;
i++;
}
if(i==8)
{
    Serial.println("OK");
    lcd.setCursor(0,1);
    lcd.print("OK");
}
else
{
    Serial.println("Error");
    lcd.setCursor(0,1);
    lcd.print("Error");
}
```