```cpp
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//Info@2025


#include <LCD_I2C.h>
LCD_I2C lcd(0x27);




#define BLYNK_PRINT Serial
#include <WiFi.h>
#include <WiFiClient.h>
#include <BlynkSimpleEsp32.h>



#define BLYNK_TEMPLATE_ID "TMPL3k0ihZ0C0"
#define BLYNK_TEMPLATE_NAME "HERB QUALITY MONITORING"
#define BLYNK_AUTH_TOKEN "P4dY504csHk5UjGQROoaifXgIzuIzho_"



char auth[] = BLYNK_AUTH_TOKEN;
char ssid[] = "IOT";
char pass[] = "123456789";
```

```cpp
#include "DHT.h"

#define DHTPIN 4
#define DHTTYPE DHT11

#define gas 35      //MQ8
#define moist 32

 DHT dht(DHTPIN, DHTTYPE);

int gasval,moistvalue,t,h,iotsend;
void setup() {

Serial.begin(9600);
dht.begin();

pinMode(gas,INPUT);
pinMode(moist,INPUT);
```

```
  lcd.begin();

  lcd.backlight();

  lcd.setCursor(0,0);

  lcd.print(" HERB QUALITY ");

  lcd.setCursor(0,1);

  lcd.print(" IOT MONITORING");

  Blynk.begin(auth, ssid, pass, "blynk.cloud", 80);

  delay(3000);

  lcd.clear();


}


void loop() {
  //-------------------------------------------------------------
  -----GAS-----------------------------------------------------



  gasval=analogRead(gas);


    Serial.print("HYDROGEN ; ");

    Serial.println(gasval);


    gasval=map(gasval,0,4094,0,100);
```

```
if(gasval<2)
  {
    gasval=0;
  }
    Serial.print("HYDROGEN:");
    Serial.println(gasval);


if(gasval>1&&gasval<30)
  {

    Serial.println("GAS LEVEL GOOD");


    lcd.setCursor(6,0);
    lcd.print("GOOD   ");
    Blynk.virtualWrite(V5,"GAS LEVEL GOOD      ");


    // Blynk.virtualWrite(V0,"            ");



  }



if(gasval>30&&gasval<50)
  {
```

```arduino
    Serial.println("GAS LEVEL MODRATE");
     lcd.clear();
     lcd.setCursor(6,0);
    lcd.print("MODRATE ");
    Blynk.virtualWrite(V5,"GAS LEVEL MODRATE");


    //Blynk.virtualWrite(V0,"            ");



}


if(gasval>50)
 {
Blynk.logEvent("msg", "GAS LEVEL BAD");
    Serial.println("GAS LEVEL BAD");
     lcd.clear();
     lcd.setCursor(6,0);
    lcd.print("BAD ");
    Blynk.virtualWrite(V5,"GAS LEVEL BAD");


    // Blynk.virtualWrite(V0,"            ");

 }


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

```
    lcd.print("G:");
  if(gasval<=9){lcd.print("0");lcd.print(gasval);}
   else if(gasval<=99){lcd.print("");lcd.print(gasval);}




//-----------------------------------------------------------
-----------------------------------------------------------
-




h = dht.readHumidity();


t = dht.readTemperature();




 Serial.print("Humidity: ");
 Serial.println(h);
 Serial.print("% Temperature: ");
 Serial.println(t);
// Serial.print(F("°C "));
// Serial.print(f);
// Serial.print(F("°F Heat index: "));
// Serial.print(hic);
```

```
//   Serial.print(F("°C "));

//   Serial.print(hif);

//   Serial.println(F("°F"));




      lcd.setCursor(0,1);

       lcd.print("T:");

   if(t<=9){lcd.print("0");lcd.print(t);}

    else if(t<=99){lcd.print("");lcd.print(t);}




   lcd.setCursor(5,1);

       lcd.print("H:");

   if(h<=9){lcd.print("0");lcd.print(h);}

    else if(h<=99){lcd.print("");lcd.print(h);}


//------------------------------------------------------------------
-------------------------------------------------------------------
-




moistvalue=analogRead(moist);

  Serial.print("-------------------moist ORIGINAL:");

   Serial.println(moistvalue);
```

```
moistvalue=map(moistvalue,0,2655,100,0);


if(moistvalue<=0){moistvalue=0;}
  if(moistvalue>=100){moistvalue=100;}
  Serial.print("-----------------moist percentage:");
  Serial.println(moistvalue);
  lcd.setCursor(10,1);
  lcd.print("M:");


  if(moistvalue<=9){lcd.print("0");lcd.print(moistvalue);}
  else if(moistvalue<=99){lcd.print("");lcd.print(moistvalue);}


if(moistvalue>10)
  {


    lcd.setCursor(15,1);
    lcd.print("W");
    Blynk.virtualWrite(V6,"WET");


  }
  else
  {
```

```
      lcd.setCursor(15,1);
        lcd.print("D");
        Blynk.virtualWrite(V6,"DRY");
    }




delay(300);
Blynk.run();



if(iotsend==1)
{
    Blynk.virtualWrite(V0,t);
    Blynk.virtualWrite(V1,h);
    Blynk.virtualWrite(V2, moistvalue);
    Blynk.virtualWrite(V3, gasval);


}



}



BLYNK_WRITE(V4) {
```

```
int button = param.asInt();
if (button == 1) {
 iotsend=1;
}
else{iotsend=0;}
}
```