程式：檢查Access Point(熱點) 是否連上

**開啟程式CheckAP**

**程式位址：**[**https://github.com/brucetsao/BruceCourses/blob/master/105ANQU\_IOT/Code/CheckAP/CheckAP.ino**](https://github.com/brucetsao/BruceCourses/blob/master/105ANQU_IOT/Code/CheckAP/CheckAP.ino)

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| #include <WiFi.h>  uint8\_t MacData[6];  char ssid[] = "Apple\_TC\_Wi-Fi"; // your network SSID (name)  char pass[] = "27541147"; // your network password  IPAddress Meip ,Megateway ,Mesubnet ;  String MacAddress ;  int status = WL\_IDLE\_STATUS;  void setup() {  MacAddress = GetWifiMac() ;  ShowMac() ;  initializeWiFi();  printWifiData() ;  }  void loop() { // run over and over    }  void ShowMac()  {    Serial.print("MAC:");  Serial.print(MacAddress);  Serial.print("\n");  }  String GetWifiMac()  {  String tt ;  String t1,t2,t3,t4,t5,t6 ;  WiFi.status(); //this method must be used for get MAC  WiFi.macAddress(MacData);    Serial.print("Mac:");  Serial.print(MacData[0],HEX) ;  Serial.print("/");  Serial.print(MacData[1],HEX) ;  Serial.print("/");  Serial.print(MacData[2],HEX) ;  Serial.print("/");  Serial.print(MacData[3],HEX) ;  Serial.print("/");  Serial.print(MacData[4],HEX) ;  Serial.print("/");  Serial.print(MacData[5],HEX) ;  Serial.print("~");    t1 = print2HEX((int)MacData[0]);  t2 = print2HEX((int)MacData[1]);  t3 = print2HEX((int)MacData[2]);  t4 = print2HEX((int)MacData[3]);  t5 = print2HEX((int)MacData[4]);  t6 = print2HEX((int)MacData[5]);  tt = (t1+t2+t3+t4+t5+t6) ;  Serial.print(tt);  Serial.print("\n");    return tt ;  }  String print2HEX(int number) {  String ttt ;  if (number >= 0 && number < 16)  {  ttt = String("0") + String(number,HEX);  }  else  {  ttt = String(number,HEX);  }  return ttt ;  }  void printWifiData()  {  // print your WiFi shield's IP address:  Meip = WiFi.localIP();  Serial.print("IP Address: ");  Serial.println(Meip);  Serial.print("\n");  // print your MAC address:  byte mac[6];  WiFi.macAddress(mac);  Serial.print("MAC address: ");  Serial.print(mac[5], HEX);  Serial.print(":");  Serial.print(mac[4], HEX);  Serial.print(":");  Serial.print(mac[3], HEX);  Serial.print(":");  Serial.print(mac[2], HEX);  Serial.print(":");  Serial.print(mac[1], HEX);  Serial.print(":");  Serial.println(mac[0], HEX);  // print your subnet mask:  Mesubnet = WiFi.subnetMask();  Serial.print("NetMask: ");  Serial.println(Mesubnet);  // print your gateway address:  Megateway = WiFi.gatewayIP();  Serial.print("Gateway: ");  Serial.println(Megateway);  }  void ShowInternetStatus()  {    if (WiFi.status())  {  Meip = WiFi.localIP();  Serial.print("Get IP is:");  Serial.print(Meip);  Serial.print("\n");    }  else  {  Serial.print("DisConnected:");  Serial.print("\n");  }  }  void initializeWiFi() {  while (status != WL\_CONNECTED) {  Serial.print("Attempting to connect to SSID: ");  Serial.println(ssid);  // Connect to WPA/WPA2 network. Change this line if using open or WEP network:  status = WiFi.begin(ssid, pass);  // status = WiFi.begin(ssid);  // wait 10 seconds for connection:  delay(10000);  }  Serial.print("\n Success to connect AP:") ;  Serial.print(ssid) ;  Serial.print("\n") ;    } |

**PS:請修改**

**char ssid[] = "NQU\_IOT"; // your network SSID (name)**

**char pass[] = "12345678"; // your network password**

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**CheckAP程式重點解說**

#include <WiFi.h> 使用網路必要函數

uint8\_t MacData[6]; 儲存 MAC資料

IPAddress Meip ,Megateway ,Mesubnet ; 宣告ip、閘道器、子網路遮罩

int status = WL\_IDLE\_STATUS; 連線網路狀態

GetWifiMac() 取得MAC函數

ShowMac() ; 秀出MAC資料

WiFi.status(); 顯示WIFI狀態

WiFi.macAddress(MacData); 取得MAC資料

initializeWiFi(); 進行連線

printWifiData() ; 列印網路狀態資訊

status = WiFi.begin(ssid); 不使用加密連AP

status = WiFi.begin(ssid, pass); 使用加密連AP

status == WL\_CONNECTED 連AP是否成功

WiFi.status() 連接成功狀態

Meip = WiFi.localIP(); 取得連線IP

Megateway = WiFi.gatewayIP();取得連線閘道器

WiFi.subnetMask(); 取得連線子網路遮罩