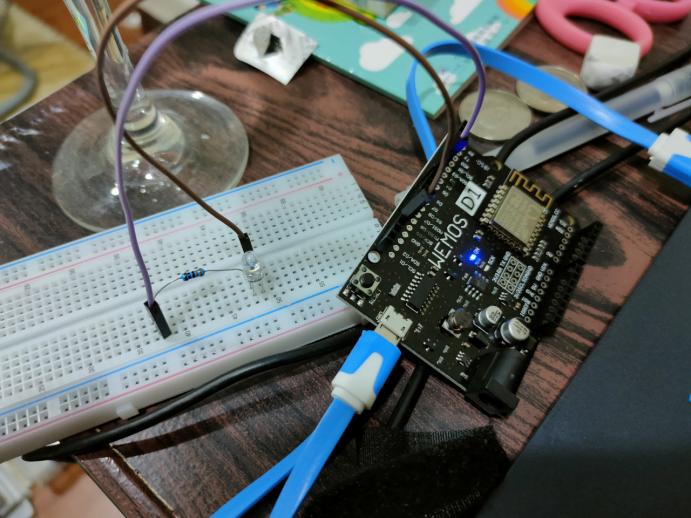
第6組

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1. 提案:
2. 天氣報告：天氣盒子
3. 智慧攝影機：辨識人臉、車牌
4. 智慧家庭：智慧開關
5. 智慧農業：可以檢測土壤水含量或養分，決定是否要澆水或施肥
6. 智慧鬧鐘：可以檢測使用著是否真的有醒來，未醒來可以用更強烈的方式叫醒
7. 實做:

我們選擇實做智慧開關，利用Wemos的Wifi功能來控制LED，未來只要接上繼電器即可直接控制所有電器

 實做電路照片：

程式碼部份：

#include <ESP8266WiFi.h>

#include "pin.h"

#define LED\_PIN D5

WiFiServer server(80);

int value = LOW;

/\*REMEMBER TO CHANGE SSID AND PASSWORD\*/

const char \*ssid = "IoT";

const char \*pwd = "IoT12345";

void setup()

{

// put your setup code here, to run once:

Serial.begin(115200);

pinMode(LED\_PIN, OUTPUT);

digitalWrite(LED\_PIN, LOW);

WiFi.mode(WIFI\_AP);

WiFi.softAP(ssid, pwd);

server.begin();

delay(5000);

Serial.println("Start!!");

IPAddress HTTPS\_ServerIP = WiFi.softAPIP(); // Obtain the IP of the Server

Serial.print("Server IP is: "); // Print the IP to the monitor window

Serial.println(HTTPS\_ServerIP);

}

void loop()

{

// put your main code here, to run repeatedly:

WiFiClient client = server.available();

if (!client)

{

return;

}

Serial.println("Somebody has connected :)");

String request = client.readStringUntil('\r');

Serial.println(request);

if (request.indexOf("/ON") != -1)

{

digitalWrite(LED\_PIN, HIGH);

value = HIGH;

}

if (request.indexOf("/OFF") != -1)

{

digitalWrite(LED\_PIN, LOW);

value = LOW;

}

client.flush(); //clear previous info in the stream

String s = F("HTTP/1.1 200OK\r\n"

"Content-Type: text/html\r\n"

"\r\n"

"<!DOCTYPE html>"

"<html>"

"<head>"

"<meta name=\"viewport\" content=\"width=device-width, initial-scale=1.0, user-scalable=no, minimum-scale=1.0, maximum-scale=1.0\" />"

"<meta charset=\"utf-8\">"

"<title>My First Page</title>"

"</head>"

"<body>"

"<div>Light status :");

if (value == HIGH)

{

s += "ON"; /\*ADD YOUR CODE HERE\*/

}

else

{

s += "OFF"; /\*ADD YOUR CODE HERE\*/

}

s += F("</div>"

"<input type=\"button\" value=\"ON\" onclick=\"location.href='/ON'\">"

"<input type=\"button\" value=\"OFF\" onclick=\"location.href='/OFF'\">"

"</body>"

"</html>");

client.println(s);

delay(10);

Serial.println("Client disonnected"); //Looking under the hood

}

實做結果：

