**電通四甲微處理器實驗 實驗結報**

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| **實驗名稱** | **Lab 10—MCS Cloud** | | |
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1. **實驗目的**
2. **建立MCS帳號**
3. **透過MCS溝通7696**
4. **控制LED並檢視狀態**
5. **將 A0 電阻值上傳**
6. **實驗步驟**
7. **MCS新增on/off控制器/顯示器各一個**
8. **接一可變電阻，將A0類比讀值上傳，並看到變化圖**
9. **Check Point 1程式碼**

**#include <LWiFi.h>**

**#include "MCS.h"**

**char \_lwifi\_ssid[] = "YTY";**

**char \_lwifi\_pass[] = "12345678";**

**MCSDevice mcs("D4gkuIfI", "ro4BYtuwMkLAyPY9");**

**MCSControllerOnOff led("led\_c");**

**MCSDisplayOnOff remote("led");**

**void setup()**

**{**

**Serial.begin(9600);**

**Serial.println("Connect to Wifi");**

**while (WiFi.begin(\_lwifi\_ssid, \_lwifi\_pass) != WL\_CONNECTED) {**

**Serial.println("Wifi Reconnecting..");**

**delay(1000);**

**}**

**Serial.println("Connect to MCS...");**

**while (!mcs.connected()) {**

**Serial.println("MCS Reconnecting..");**

**mcs.connect();**

**}**

**Serial.println("MCS Connected!");**

**mcs.addChannel(led);**

**mcs.addChannel(remote);**

**pinMode(7, OUTPUT);**

**}**

**void loop()**

**{**

**while (!mcs.connected()) {**

**mcs.connect();**

**if (mcs.connected()) {**

**Serial.println("MCS Reconnect");**

**}**

**}**

**mcs.process(1000);**

**while(!led.valid())**

**{**

**Serial.println("read LED value from MCS...");**

**led.value(); //取得MCS數值**

**}**

**Serial.print("done, LED value = ");**

**Serial.println(led.value()); //顯示出來**

**if (led.value() == 1) {**

**digitalWrite(7, HIGH);**

**} else {**

**digitalWrite(7, LOW);**

**}**

**if(!remote.set(led.value()))**

**{**

**Serial.print("Failed to update remote");**

**Serial.println(remote.value());**

**}**

**delay(200);**

**}**

1. **Check Point 2程式碼**

**#include <LWiFi.h>**

**#include "MCS.h"**

**char \_lwifi\_ssid[] = "YTY";**

**char \_lwifi\_pass[] = "12345678";**

**MCSDevice mcs("D4gkuIfI", "ro4BYtuwMkLAyPY9");**

**MCSDisplayInteger Temp("temp");**

**void setup()**

**{**

**Serial.begin(9600);**

**Serial.println("Connect to Wifi");**

**while (WiFi.begin(\_lwifi\_ssid, \_lwifi\_pass) != WL\_CONNECTED) {**

**Serial.println("Wifi Reconnecting..");**

**delay(1000);**

**}**

**Serial.println("Connect to MCS...");**

**while (!mcs.connected()) {**

**Serial.println("MCS Reconnecting..");**

**mcs.connect();**

**}**

**Serial.println("MCS Connected!");**

**mcs.addChannel(Temp);**

**}**

**void loop()**

**{**

**while (!mcs.connected()) {**

**mcs.connect();**

**if (mcs.connected()) {**

**Serial.println("MCS Reconnect");**

**}**

**}**

**mcs.process(1000);**

**int sensor = analogRead(A0);**

**Temp.set(sensor);**

**Serial.println("Add sensor value.");**

**delay(200);**

**}**

1. **實驗結果及分析**





