[嵌入式系統設計](https://flipclass.stust.edu.tw/course/13883)第十三次作業

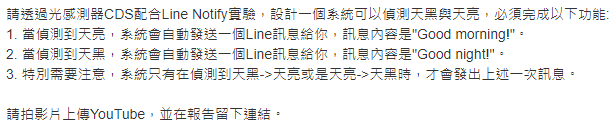
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1. 題目



1. 程式

#include <WiFi.h>

#include <WiFiClientSecure.h>

//#include <SimpleDHT.h>

char SSID[] = "WY1010";

char PASSWORD[] = "20041010311";

String Linetoken = "0yOTW4szAcVRya1cLOjQmYQb5BguMMVHHGMbX41YlkO";

WiFiClientSecure client;//網路連線物件

char host[] = "notify-api.line.me";//LINE Notify API網址

int sensorPin = A0;

int sensorValue = 0;

int Data = 2, Data\_old = 0;

String message;

void setup() {

Serial.begin(115200);

//連線到指定的WiFi SSID

Serial.print("Connecting Wifi: ");

Serial.println(SSID);

WiFi.begin(SSID, PASSWORD);

while (WiFi.status() != WL\_CONNECTED) {

Serial.print(".");

delay(500);

}

//連線成功，顯示取得的IP

Serial.println("");

Serial.println("WiFi connected");

Serial.println("IP address: ");

IPAddress ip = WiFi.localIP();

Serial.println(ip);

client.setInsecure();//ESP32核心 1.0.6以上

sensorValue = analogRead(sensorPin);

Serial.println(sensorValue);

if (sensorValue < 1500) {

Data = 0;

} else if (sensorValue > 1500) {

Data = 1;

}

}

void loop() {

sensorValue = analogRead(sensorPin);

Serial.println(sensorValue);

if (sensorValue < 1500 && Data == 0) {

message = "Good night!";

upload();

Data = 1;

} else if (sensorValue > 1500 && Data == 1) {

message = "Good morning!";

upload();

Data = 0;

}

//每5秒讀取一次溫濕度

delay(5000);

}

void upload() {

if (client.connect(host, 443)) {

int LEN = message.length();

//傳遞POST表頭

String url = "/api/notify";

client.println("POST " + url + " HTTP/1.1");

client.print("Host: "); client.println(host);

//權杖

client.print("Authorization: Bearer "); client.println(Linetoken);

client.println("Content-Type: application/x-www-form-urlencoded");

client.print("Content-Length: "); client.println( String((LEN + 8)) );

client.println();

client.print("message="); client.println(message);

client.println();

//等候回應

delay(2000);

String response = client.readString();

//顯示傳遞結果

Serial.println(response);

client.stop(); //斷線，否則只能傳5次

}

else {

//傳送失敗

Serial.println("connected fail");

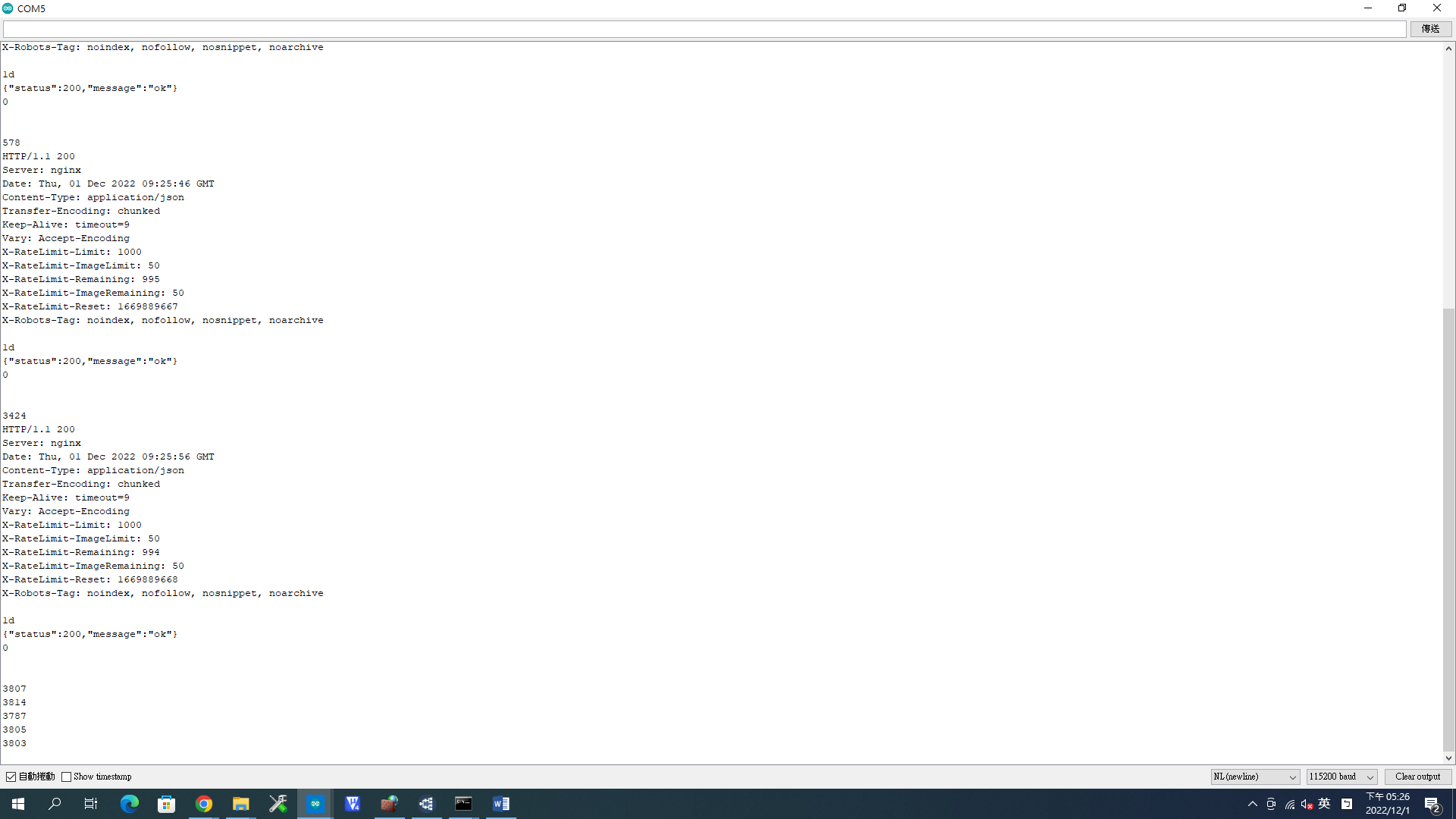
}

}

1. 程式說明

透過光感測器CDS配合Line Notify實驗，設計一個系統可以偵測天黑與天亮

1. 執行結果



影片連結： <https://youtube.com/shorts/cdoEKNltaYQ?feature=share>