#include "SoftwareSerial.h"

String ssid ="WIFI\_NAME";

String password="WIFI\_PASSWORD";

SoftwareSerial esp(3, 2);// RX, TX

String server = "www.iotboys.com"; //Your Host

String uri = "/YOUR\_API"; // Your URI

int RED\_BULB=5;

int YELLOW\_BULB=6;

void setup() {

pinMode(RED\_BULB, OUTPUT);

pinMode(YELLOW\_BULB, OUTPUT);

digitalWrite(RED\_BULB, HIGH);

digitalWrite(YELLOW\_BULB, HIGH);

esp.begin(9600);

Serial.begin(9600);

connectWifi();

httpget();

delay(1000);

}

void connectWifi() {

String cmd = "AT+CWJAP=\"" +ssid+"\",\"" + password + "\"";

esp.println(cmd);

delay(4000);

if(esp.find("OK")) {

Serial.println("Connected!");

}

else {

Serial.println("Cannot connect to wifi ! Connecting again..."); }

connectWifi();

}

/////////////////////////////GET METHOD///////////////////////////////

void httpget() {

esp.println("AT+CIPSTART=\"TCP\",\"" + server + "\",80");//start a TCP connection.

if( esp.find("OK")) {

Serial.println("TCP connection ready");

} delay(1000);

String getRequest =

"GET " + uri + " HTTP/1.0\r\n" +

"Host: " + server + "\r\n" +

"Accept: \*" + "/" + "\*\r\n" +

"Content-Type: application/json\r\n" +

"\r\n";

String sendCmd = "AT+CIPSEND=";

esp.print(sendCmd);

esp.println(getRequest.length() );

delay(500);

if(esp.find(">")) {

Serial.println("Sending..");

esp.print(getRequest);

if( esp.find("SEND OK")) {

Serial.println("Packet sent");

while (esp.available()) {

String response = esp.readString();

int RED\_BULB\_ON = response.indexOf("RED\_BULB>TRUE")>0?1:0;

int YELLOW\_BULB\_ON = response.indexOf("YELLOW\_BULB>TRUE")>0?1:0;

if(RED\_BULB\_ON==1)

{

digitalWrite(RED\_BULB, LOW);

}

else

{

digitalWrite(RED\_BULB, HIGH);

}

if(YELLOW\_BULB\_ON==1)

{

digitalWrite(YELLOW\_BULB, LOW);

}

else

{

digitalWrite(YELLOW\_BULB, HIGH);

}

}

esp.println("AT+CIPCLOSE");

}

}

}

void loop() {

httpget();

}