

Redireccionament iBeacon



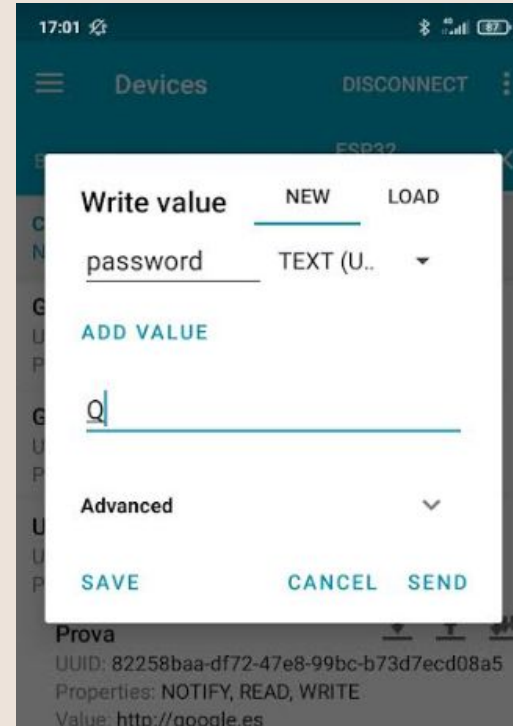
Client



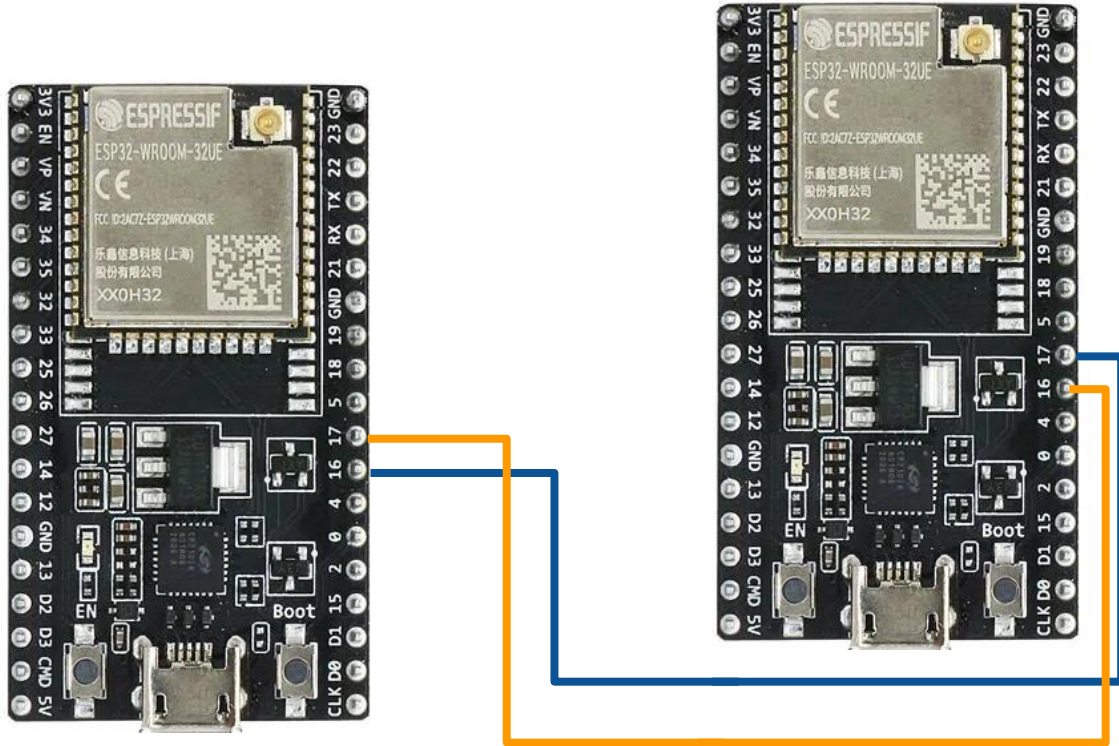
Rector



nrf Connect



Hardware



Software – Bluetooth iBeacon

```
void setup() {  
  Serial.begin(115200);  
  Serial.println();  
  Serial.println("Initializing...");  
  Serial.flush();  
  
  //serial 2  
  
  Serial2.begin(9600, SERIAL_8N1, 17, 16);  
  
  //Bluetooth  
  
  BLEDevice::init(DEVICE_NAME);  
  pServer = BLEDevice::createServer();  
  pServer->setCallbacks(new MyServerCallbacks());  
  
  init_service();  
  init_beacon();  
  
  Serial.println("iBeacon + service defined and advertising!");  
}
```

Software – Bluetooth iBeacon

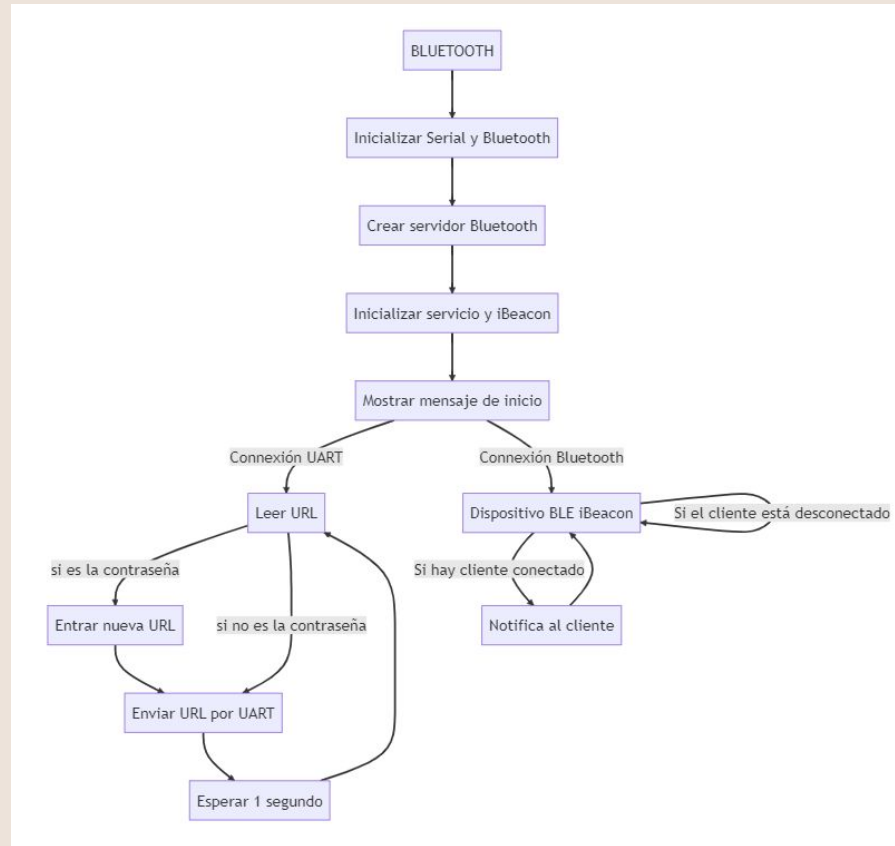
```
void onWrite(BLECharacteristic *pCharacteristic) {  
    std::string tmp;  
    tmp=pCharacteristic->getValue();  
  
    if (mode_set_url) {  
        mode_set_url=false;  
        stURL=tmp;  
        Serial.print("Saved URL: ");  
        Serial.println(stURL.c_str());  
    }  
    else {  
        if (tmp=="password") {  
            mode_set_url=true;  
            Serial.println("Waiting URL to save...");  
        }  
    }  
}
```

```
void onRead(BLECharacteristic *pCharacteristic) {  
  
    pCharacteristic->setValue(stURL);  
    pCharacteristic->notify();  
}
```

Software – Bluetooth iBeacon

```
void loop() {  
  
    delay(2000);  
  
    Serial2.write(stURL.c_str()); //mensaje  
    Serial2.write(0); //fin mensaje  
  
}
```

Software – Bluetooth iBeacon



Software – Servidor web

```
#include <Arduino.h>
#include <WiFi.h>
#include <WebServer.h>
```

```
std::string stURL="http://google.es";
```

```
const char* ssid = "*****";
const char* password = "*****";
```

```
WebServer server(80);
```

```
void handle_root();
```

```
void read_url_task(void * parameter);
```

```
extern String head;
```

```
extern String tail;
```

Software – Servidor web

```
Serial2.begin(9600, SERIAL_8N1, 17, 16);  
xTaskCreate(  
    read_url_task,  
    "read_url_task",  
    1000,  
    NULL,  
    1,  
    NULL  
);
```

```
WiFi.begin(ssid, password);  
  
while (WiFi.status() != WL_CONNECTED) {  
    delay(500);  
    Serial.print(".");  
}  
  
Serial.println("");  
Serial.println("WiFi connected.");  
Serial.println("IP address: ");  
Serial.println(WiFi.localIP());  
server.begin();  
server.on("/", handle_root);  
}
```

Software – Servidor web

```
void read_url_task(void * parameter) {
    char dato;
    std::string stTMP="";
    while (1) {
        while (Serial2.available() > 0){
            dato=Serial2.read();
            if (dato==0) { //fin mensaje
                if (stTMP!=stURL) {
                    Serial.print("New URL: ");
                    Serial.println(stTMP.c_str());

                    stURL=stTMP;
                }
                stTMP="";
            }
            else { //mensaje
                stTMP=stTMP+dato;
            }
        }
        delay(500);
    }
}
```

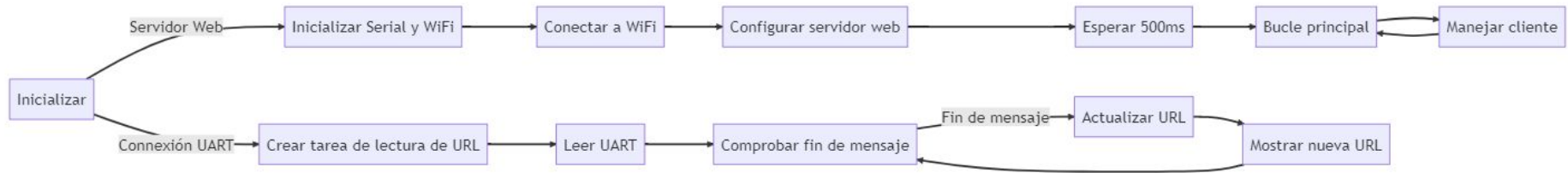
```
void handle_root() {
    String html;

    html=head+stURL.c_str()+tail;

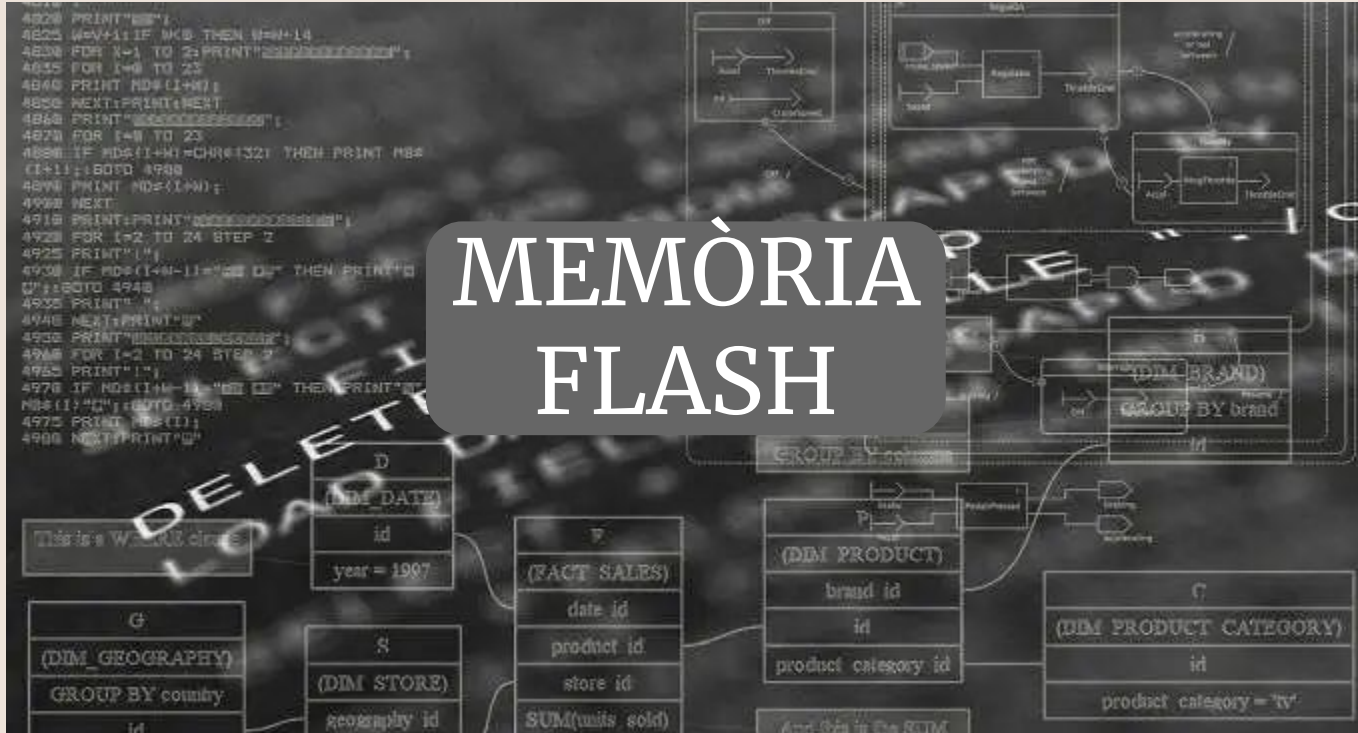
    server.send(200, "text/html", html);
}
```

```
void loop() {
    server.handleClient();
}
```

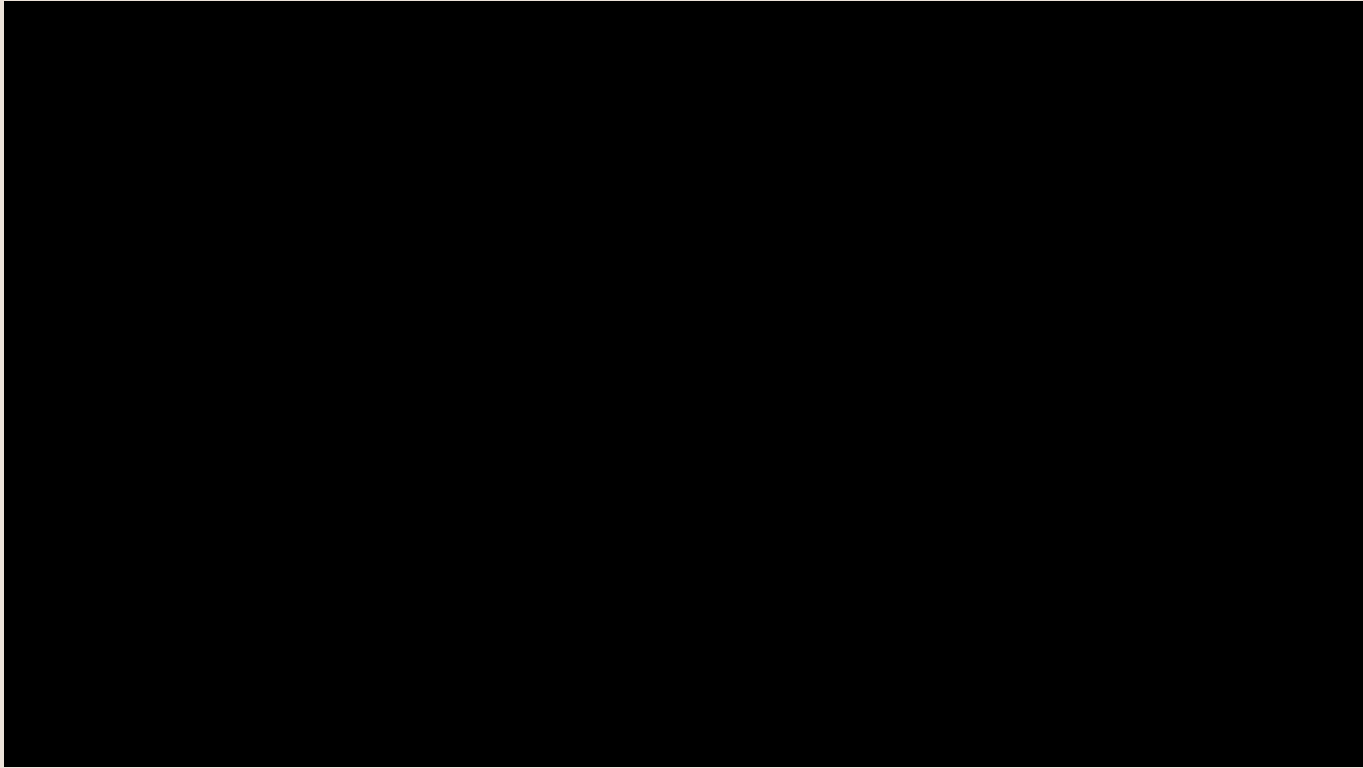
Software – Servidor web



Problemes



Demostració



Si no funciona, ves

https://drive.google.com/file/d/1w6GeIUdelciU6rfVisWzoBmlC6FgahmS/view?usp=share_link

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