



Flashing and configuration instructions

How to flash an SD card for raspberry pi with please-open.it and configuration

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1 Introduction

This document exposes how to flash and install please-open.it software for a raspberry pi. This document is only for the public version.

Several links refers to <https://download.please-open.it> server, refers to this website to get the latest software versions.



2 Raspbian image

The image (https://download.please-open.it/raspbian_modified.zip) we give is based on Raspbian Lite Stretch (<https://www.raspberrypi.org/downloads/raspbian/>) with an install script for please-open.it software.

You can download a Raspbian lite image and install all software manually. Do not forget to unzip it !

All information about the image are explained here : <https://www.mathieupassenaud.fr/cloudinit-rpi/>

Flash an SD card (at least 4GB) with the image, using the method explained in the official documentation : <https://www.raspberrypi.org/documentation/installation/installing-images/>



3 Configuration

We built a simple tool that helps you to generate all configuration files you need. This tool is available at :

<https://plublic.please-open.it/wizard>

Nothing is stored on our servers.

Put all configuration files directly in "boot" volume on SD.

3.1 Networking

<https://www.raspberrypi.org/documentation/configuration/wireless/headless.md>

Headless configuration does the job itself. Using your configuration tool, or with your favorite text editor, put a wpa_supplicant.conf file directly to the boot partition on the SD card.

This is how a wpa_wuppllicant.conf file looks like :

```
update_config=1
ctrl_interface=/var/run/wpa_supplicant
country=FR
network={
    ssid="mywifi"
    psk="mypassword"
}
```

If you plan to connect your raspberry pi with an ethernet connexion, forget this step.

3.2 Config.json

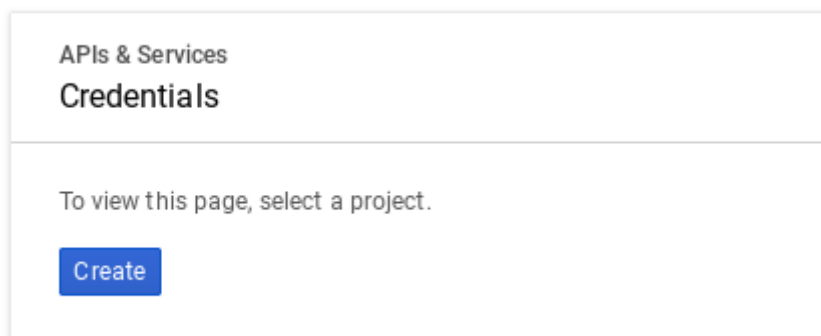
3.2.1 Oauth

For this public version of please-open.it, we do not manage anything about authentication. All is done by Google's OAuth provider. In the future, we will add others (Facebook, Twitter, Github...). As a client to their authentication system, you need to create a client id and a client secret.

The greatest new about this is : you do not have any dependency with please-open.it. Nothing is stored on our servers, and each time you use the app only Google's Oauth is use.

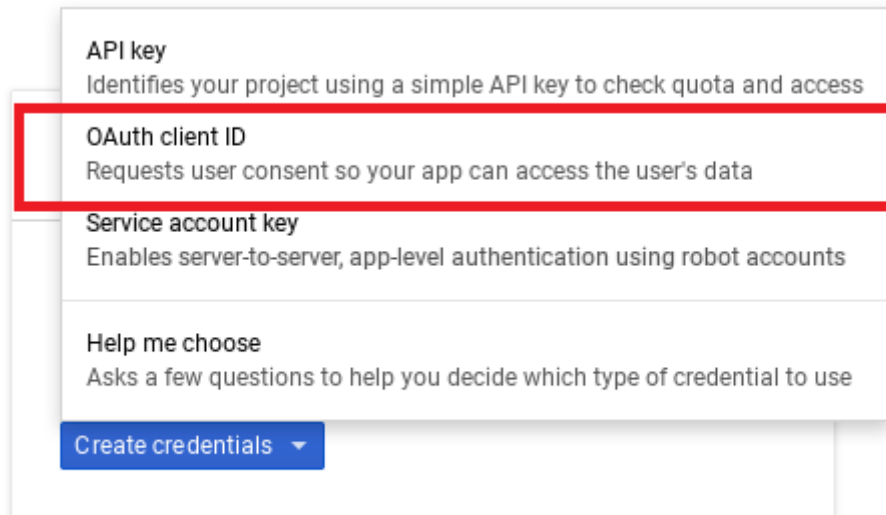
Go to : <https://console.developers.google.com/apis/credentials>

And add a new project :

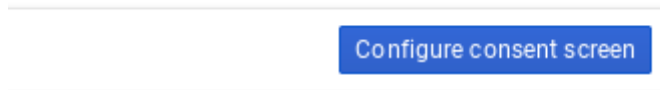




Then, when your project is created you can start creating your credentials. Select the created project from the list on the top left, then click on “Create Credentials”, choose “Oauth client ID” :



Then, you are invited to configure a consent screen.



Fill some needed information : your email address, the name of your door/portal and eventually an image.



Credentials **OAuth consent screen** Domain verification

Email address ?

contact@please-open.it

Product name shown to users ?

My entry door

Homepage URL (Optional)

https:// or http://

Product logo URL (Optional) ?

https://please-open.it/content/images/2017/12/fe



This is how your logo will look to end users

Max size: 120x120 px

Privacy policy URL

Optional until you deploy your app

https:// or http://

Terms of service URL (Optional)

https:// or http://

Save

Cancel



The consent screen shown to users who request access to their data using your client will be shown for all applications registered to your project.

You must provide an address and product name for OAuth to work.

Now, create a new OAuth Client ID, it is a Web Application so select the first proposition. Give it a name and type in "Authorized Javascript origins" "http://127.0.0.1" and in "Authorized redirect URIs" "http://127.0.0.1/callback". Then, click on "create" :



← Create OAuth client ID

Application type

- Web application
- Android [Learn more](#)
- Chrome App [Learn more](#)
- iOS [Learn more](#)
- PlayStation 4
- Other

Name ?

Restrictions

Enter JavaScript origins, redirect URIs, or both

Authorized JavaScript origins

For use with requests from a browser. This is the origin URI of the client application. It can't contain a wildcard (https://*.example.com) or a path (<https://example.com/subdir>). If you're using a nonstandard port, you must include it in the origin URI.

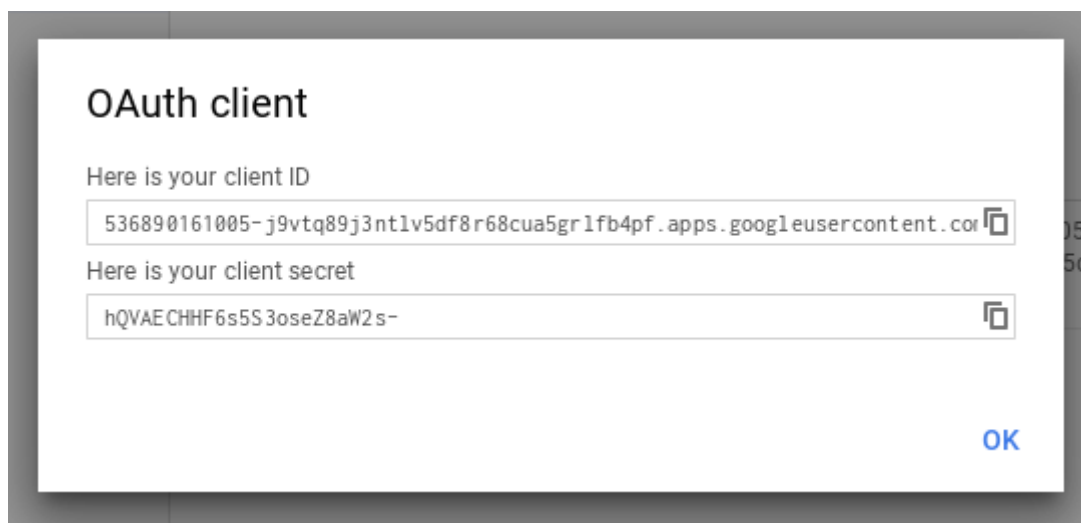


Authorized redirect URIs

For use with requests from a web server. This is the path in your application that users are redirected to after they have authenticated with Google. The path will be appended with the authorization code for access. Must have a protocol. Cannot contain URL fragments or relative paths. Cannot be a public IP address.



The wizard shows OAuth generated client ID and client secret.





From that, you also need Google's OAuth URL :

```
"issuer":"https://accounts.google.com",  
"authorization_endpoint":"https://accounts.google.com/o/oauth2/v2/auth",  
"token_endpoint":"https://www.googleapis.com/oauth2/v4/token",  
"userinfo_endpoint":"https://www.googleapis.com/oauth2/v3/userinfo",  
"jwks_uri":"https://www.googleapis.com/oauth2/v3/certs",
```

3.2.2 Door name

An entry called "door_name" contains the name shown in the mobile application when the door is detected.

3.2.3 Relay number and timing

@see wiring document

The relay number (relayNumber) is an integer from 1 to 4, corresponding to J2, J3, J4 and J5 on a 4 relays board.

A timer in ms (pause_time) defines how much time the relay keep activated.

3.3 Users (authorized-users.json)

A simple list of users in a json file (authorized-users.json) contains an array of elements. Each element has an "email" entry with a mail address and a flag called "admin" that will be used in the future :

```
[  
  {"email":"mathieu.passenaud@please-open.it","admin":true},  
  {"email":"contact@please-open.it","admin":false}  
]
```

3.4 Update configuration

At anytime, you can stop your raspberry pi, pickup the micro-sd card and put new configuration files directly in the /boot partition.

Configuration will be updated on next boot.