

CONFIGURATION FILE RPI3

INSTALL RASPBIAN

Download the Raspbian Stretch Desktop version of Raspbian: <https://www.raspberrypi.org/downloads/raspbian/>

Extract the files on a SD card and insert the SD card in the RPi and start it.

You will need a screen, keyboard and a mouse to launch the installation of Raspbian.

CONNECT TO THE INTERNET

When you are logged in, you do the followed commands:

- `sudo -i`
- `echo "password" | wpa_passphrase "SSID" >> /etc/wpa_supplicant/wpa_supplicant.conf` (First, fill in the password of your network between the brackets. Thereafter, the name of your network.)
- To control if you added your network + if the country is for Belgian people: `'COUNTRY=BE': /etc/wpa_supplicant/wpa_supplicant.conf`
- `Ctrl+D`

To start the `wpa_cli`:

- `wpa_cli`
- `interface` (-> Shows all the available networks)
- `interface wlan0`
- `scan`
- `list_networks` (-> list of the available networks)
- `reconfigure`
- `Ctrl+D`

INSTALL PYCHARM

Make a directory into your homefolder for the project:

- `mkdir Automatic_Doghouse`
- `cd Automatic_Doghouse`

Install python3 virtual environment:

- `sudo apt upgrade`
- `sudo apt update && sudo apt install -y python3-venv`
- `python3 -m pip install --upgrade pip setuptools wheel`
- `ls env/`

Deployment configuration in PyCharm

- Go to 'File > Settings > Build Execution > Deployment > Deployment'
- Add your RPi with '+', give it a name (e.g. RPi-APIPA) and chose type 'SFTP'
- Disable 'Visible only for this project'
- Type: 'SFTP'
- Declare your hostname/IP, user/password and enable 'Save password'
- Click on 'Test SFTP Connection'
- Click on 'Autodetect'

Also check if your PyCharm remembers your working config.

- Go to the tab page 'Mappings'
- Deployment path on server: `/Automatic_Doghouse`
- Put this config as default
- Click 'Apply' to go to the next step

Remote interpreter

- Go to project: ... > Project Interpreter
- Gear wheel --> Add Remote ...
- Chose the same deployment config as the one you set up one minute ago.
- Adapt the 'Remote Interpreter Path' to the Python executable in your Virtual Environment `<env-dir>/bin/python`
(e.g. `/home/me/Automatic_Doghouse/env/bin/python`)

INSTALL THE ARDUINO IDE ON THE RPI

- `sudo apt-get install arduino`

OTHER CONFIGS

For the other configurations, I refer to the information sheet we got from our mentors: <https://github.com/NMCT-S2-Project-I/Project-I>