Installation manual

The installation of the raspberry pi requires skills in linux and soldering

Requirements

- 1 Raspberry Pi 3
- 4 jumper cables
- 1 SCD30 from Sensirion
- 1 micro sd card

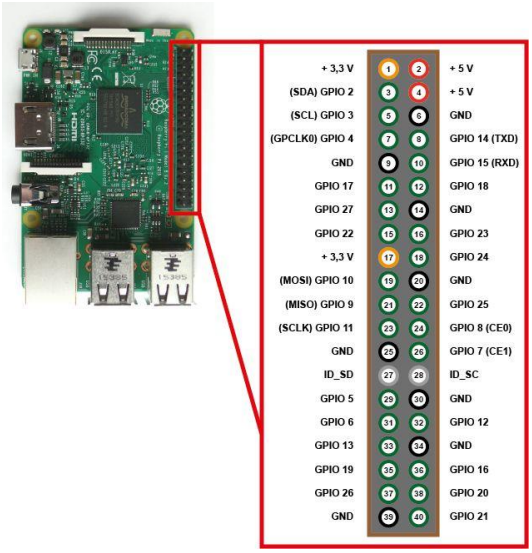
Preparation of the Raspberry

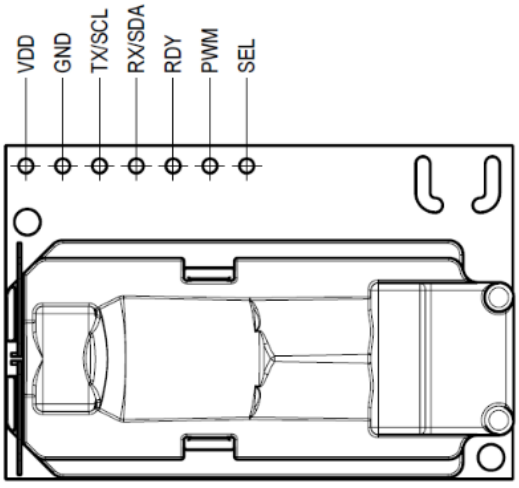
Sensor soldering

The SCD30 sensor needs to be soldered to the raspberry pi using the jumper cables.

The list is read as follows: pin of raspberry to hole of SCD30

- PIN 1 to VDD
- PIN 3 to RX/SDA
- PIN 5 to TX/SCL
- PIN 6 to GND





OS installation

Either buy a pre-installed NOOBS SD card or download and follow the setup guide[1].

To activate the ssh of the raspberry pi without access to a screen and keyboard, an empty file named ssh needs to be create in the config partition of the raspberry (only available once the OS is installed or with NOOBS).

Raspberry configuration

The default use/password of the raspberry is: pi/raspberry

Once the OS is installed, some function of the raspberry should be activated.

[1] https://www.raspberrypi.org/downloads/noobs/

But first, the OS needs to be updated: *sudo apt update && sudo apt upgrade -y*

To access the configuration system program, enter the following command in a terminal

sudo raspi-config

First the I2C protocol needs to be activated: 5 Interface Options -> P5 I2C -> Yes

Then the country shall be set to be able to use the wifi: 4 Locations Options -> I4 Change Wi-fi Country -> Choose the correct one

Disable the desktop to preserve energy and processor: 3 Boot Options -> B1 Desktop / CLI -> B2 Console Autologin

If the Desktop is needed, the command *startx* can be enter in the terminal.

Installation of sensor driver

Run the installation script. It will handle all the dependencies and driver's installations and the configuration of the raspberry pi.

sudo installDep.sh

Configure your Wi-Fi connection from the Desktop interface. Connect to the network that you will intend to use.

Gather data

Once the raspberry has restarted, the environment data are automatically captured and stored. A blinking orange led is activated on the SCD30, indicates that the system works.

The stored data are available on */home/pi*