

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

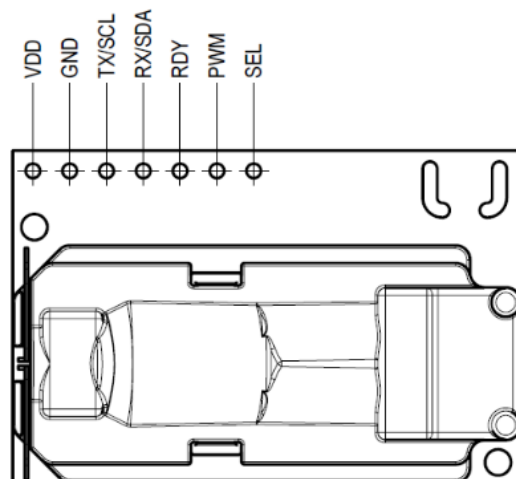
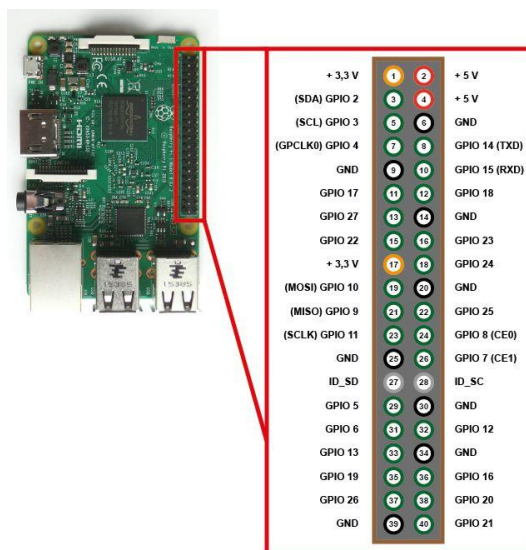
Preparation of the Raspberry

Sensor soldering

The SCD30 sensor need to be soldered to the raspberry pi.

The list is read as follow: 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 guide¹.

To activate the ssh of the raspberry pi without access to a screen and keyboard, an empty file named ssh need 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 we need to activate some function of the raspberry.

¹ <https://www.raspberrypi.org/downloads/noobs/>

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

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

sudo raspi-config

First we need to activate the I2C protocol: 5 Interface Options -> P5 I2C -> Yes

We need then set the county to be able to use the wifi: 4 Locations Options -> I4 Change Wi-fi Country -> Choose the correct one

We now 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

You need to run the installation script. It will handle all the dependences and driver's installations and the configuration of the raspberry pi.

sudo installDep.sh

You need to configure your Wi-Fi connection from the Desktop interface. Connect to the network that you will use.

Gather data

Once the raspberry has restarted, the environment data are automatically captured and stored. To be sure that the system work, the SCD30 need to have a blinking orange led activated.

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