**SWalker Robotic Platform's Interface Set-up**

In this repository it has been developed the current User Interface of the SWalker Robotic Platform, a rehabilitation robotic system for elderly patients suffering from hip fracture.

For its setting up a Raspberry Pi is needed. In our case, the interface has been developed using a Raspberry Pi 4 Model B

1º - **OS Installation**: Install in your SD Card the Operating System for your Raspberry Pi 4 Model B: Debian 10 Buster. We recommend you to follow the instruction in the official documentation web of [raspberry image OS installation](https://www.raspberrypi.org/documentation/installation/installing-images/). In case you want a customized installation the Debian 10 Buster image .zip can be download here: [Debian 10 Buster image](https://downloads.raspberrypi.org/raspios_armhf/images/raspios_armhf-2021-05-28/).

2º - **Interface dependencies**: Once Debian 10 is installed in the raspberry, connect it to the internet and download this repository. Then, in the corresponding path, download the following dependencies:

* **NodeJs**:

$ sudo apt update

$ sudo apt install nodejs npm

* Install **database** and configure the SWalker database:

$ sudo apt install mariadb-server

$ sudo mysql\_secure\_installation (password "mysql")

* Configure SWalker database using the *swdb\_scriptdb.sql* file in this repository. $ sudo mysql -u root

$ > CREATE DATABASE cpwdb;

$ > CREATE USER 'root'@'localhost' IDENTIFIED BY 'mysql';

$ > GRANT ALL PRIVILEGES ON swdb.\* TO 'root'@'localhost';

$ > FLUSH PRIVILEGES;

$ > exit;

$ sudo mysql --user=’root’--database=’swdb’--password=’mysql’ < ~/swalker\_interface/swdb\_scriptdb.sql

3º - **Wireless Access Point**: Once you have installed the previous packages, and dependencies, configure the raspberry pi as WiFi access point following the raspberry pi official documentation [Setting up a Raspberry Pi as a routed wireless access point](https://www.raspberrypi.org/documentation/configuration/wireless/access-point-routed.md).

4º - **Interface automatic launch**: Configure the interface files to be launched automatically at RPi boot. Thus, the interface will be accessible as long as the Raspberry is connected. In case of an interface error occurs, plug-off and plug-in again the RPi should solve it.

* In /etc/rc.local add the following:

sudo node /your /path/swalker-interface/index.js &