

IntelChair

Project in Informatics Engineering 2018/2019

Mobile Application Manual

Group 7

- André Neves
- Diogo Marques
- Fábio Alves
- Marcelo Fraga
- Marco Silva
- Miguel Dinis

Mentors: Nuno Lau, José Luís Azevedo, Artur Pereira, Bernardo Cunha, Eurico Pedrosa

Multi-Device application

The controlling of the wheelchair by the end user is done through a mobile application. It can be used on any device that supports a web browser, like a pc, tablet or smartphone.



Login

To be able to access the functionalities of the app, the user must enter his login credentials on the login screen. Note that it's not possible to sign up since that is only made by the administrators using the system dashboard



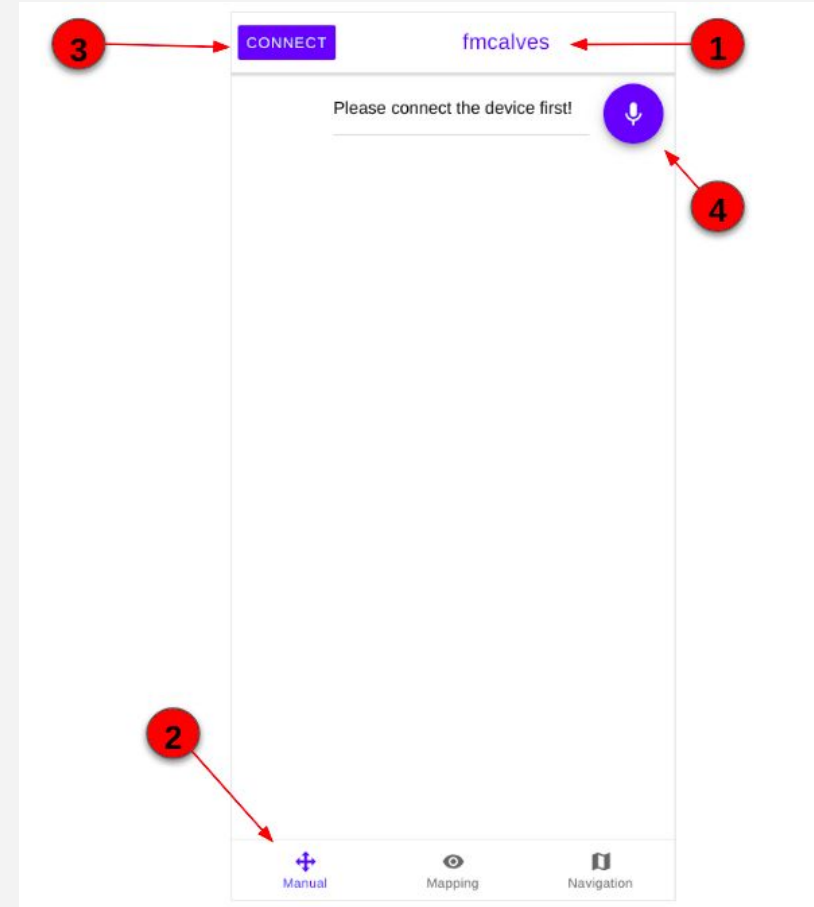
Name

Password

LOGIN

After a successful log in, the following screen is displayed to the user.

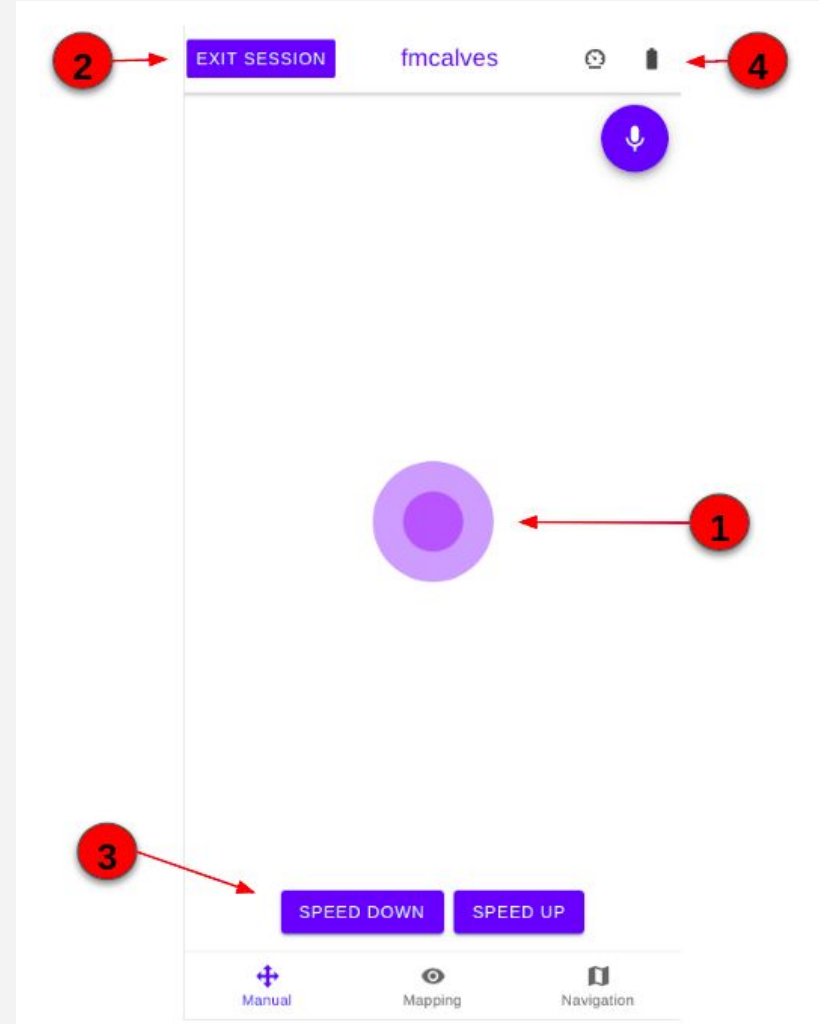
1. Username of the current active user.
2. Menu tab divided in three sections (Manual, Mapping, Navigation), note that the current active tab is blue colored.
3. "CONNECT" button, used to connect the app to the IntelChair.
4. The voice control button, when clicked it activates the voice control mode (voice commands explained later).



Manual mode

After the connection with the IntelChair is made (by clicking in "CONNECT") the user is now on "Manual" mode and a (360°) virtual joystick is shown up on the center of the screen. The user can control the chair by dragging the joystick into the desirable orientation.

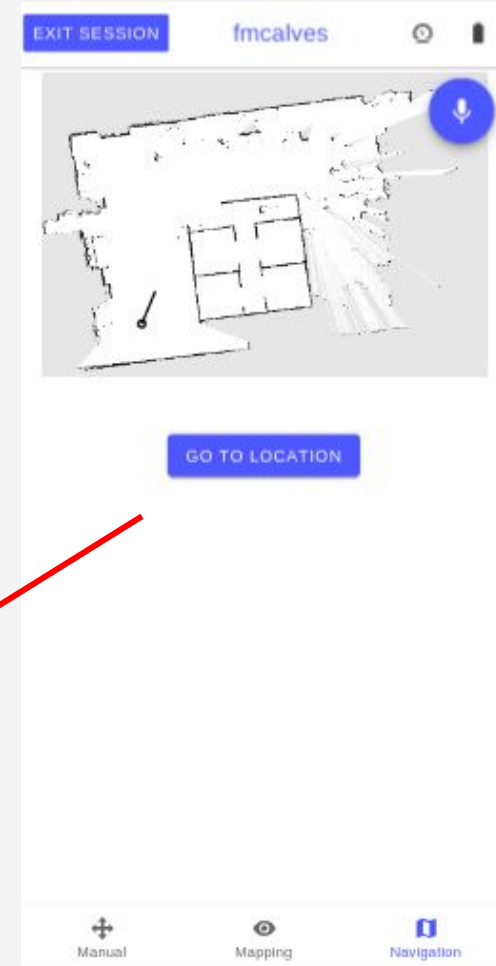
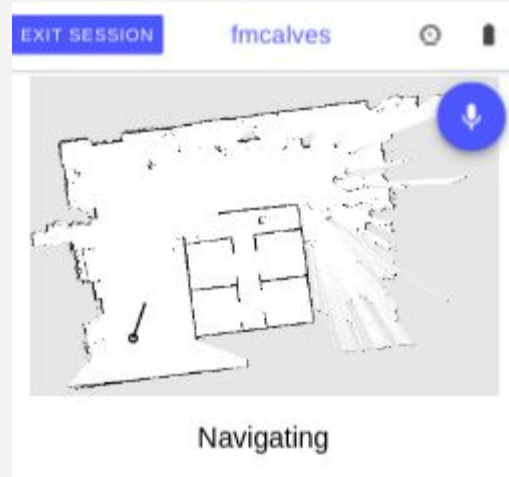
1. Virtual Joystick
2. "EXIT SESSION" button, when clicked the current user disconnects from the IntelChair and the login page is loaded.
3. "SPEED DOWN" and "SPEED UP" buttons, it allows the user to control the IntelChair's velocity.
4. IntelChair status icons, velocity level and battery. (varies between 1-5 and 0-10 respectively)



Navigation

In the "Navigation" tab the app shows an image of the current active mapped area.

The user can assign a location to where the IntelChair goes by simple pressing one position on the map and rotate the line (the line angle on the map represents the final orientation of the IntelChair). After selecting one localization, just click on the "Go to Location" button. A "Navigating" message will be displayed indicating that the chair is on her way.



Voice commands

After activate the voice control the user can perform the following voice commands:

- * **"Connect"** - Connect to IntelChair.
- * **"Exit"** - Exit session (disconnect).
- * **"Voice off"** - Deactivate voice control.
- * **"Speed up"** - Level up IntelChair velocity.
- * **"Speed down"** - Level down IntelChair velocity.
- * **"Manual"** - Go to "manual" tab.
- * **"Mapping"** - Go to "mapping" tab.
- * **"Navigation"** - Go to "navigation" tab.

