Start-up Guide Roomba

# Roomba

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| !!! In case of emergency !!!  If your code has some error or an infinite loop, your robot will continue moving, even if there is a cliff or wall ! You will have to   * **quickly pick it up** * **ctrl+c in command window to break any infinite loop** * **send, via de command line stopRoomba(comPort)** * **comPort is defined with initRomba function** |

1. Plug in the local access point (no internet needed).
2. Boot PC with Ubuntu.

Connect yourself with to Roomba\_Wifi (password: Roomba0701!)

1. Turn Pi on by plugging in the DIN cable in the Roomba
2. Always start your program with:

startup\_RoombaUDP

roombaName='Roomba#'; %# = fill in correct number of roomba

IP=getIPRoomba(roombaName);

comPort=initRoomba(IP);

1. To test the good functioning of the Roomba, use launchTest\_Roomba. (fill in the correct name of the Roomba) If the mean freq << 10, it means that there is certainly a communication error, indicated by many error messages in the console: Wrong data format received. Trying again. This is generally solved by rebooting the Raspberry Pi.

# Ubuntu

## Launch MATLAB

## Test if pi is alive (=connected to the internet)

1. Launch terminal ctrl+alt+t
2. Type : ping 192.168.1.10#
3. # is the number of your Roomba
4. If there is no ping between you & pi, call the lab assistant!

## Connect on pi via ssh

1. Launch terminal ctrl+alt+t
2. Type: ssh pi@192.168.1.10#
3. # is the number of your Roomba
4. Password = pi
5. You are now connected with your terminal on the Pi, and you can use commands

### Useful commands

1. sudo reboot
2. sudo halt