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The ROS tools

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Objective

The present document is a short summary of interesting tools provided by ROS that will be used later on during the lab course.

4.1

- `roscore` start the parent process that helps nodes finding each other

- `rosnode list` prints the list of existing nodes

- `rosnode info <topic>` print information regarding the specified node

- `rosrun <package> <node>` to start a specific node within a specific package

- `rosrun rqt_graph rqt_graph` open a new windows enabling one to see the ROS project architecture (i.e the nodes and the topics linking them)

- `rostopic -h` prints a list of possible operations on ros topics

- `rostopic list` lists all the topics

- `rostopic echo <topic>` prints the content of a topic and update it live (CTRL+C to exit)

- `rostopic echo <topic>/<field>` prints a specific field of the messages going through the specified topic

- `roslaunch <package> <filename-in-the-\launch-folder>` start a launch (i.e. launch multiple nodes at once for you)

> **Remark:**
>
> The students are invited to have a look at the tools' helper in order to have further insight on the offered options. For instance:
>
> - `roscore --help`
>
> - `rosnode --help`
>
> - `rosrun --help`
>
> - `rostopic --help`
>
> - `roslaunch --help`