Project 2 – Supplementary

1. **Goal**

This project is aimed to introduce you the basic operations of TurtleBot2. You can run ROS on a real robot and investigate the sensor functions on that.

1. **Instruction**

A total series of operations are introduced in the lab04.pptx. Please carefully follow that and do not just copy the commands. You should understand what exactly the function is of each command. On that you could have no need to follow them one by one. Just achieve your goals.

In the step of record a rosbag, the following can be referred or you can do it yourself.

Run the TurtleBot and Kinect first as well as the teleop. Than either use a remote control or just operate on the host machine.

$ rosbag record -O <your\_bag\_name.bag> /camera/rgb/image\_color /camera/depth\_registered/image\_raw /camera/rgb/image\_mono /odom /tf /tf\_static

Move your turtlebot around while recording the rosbag. Then get your bag (students in one group can share one bag) back to your own PC. Use

$ rosbag play -l <your\_bag\_name.bag>

to play it as a loop.

Echo each topic contents you recorded.

$ rostopic echo /<topic\_name>

Than screen shot, choose one piece of message of each topic and explain what it means.

Use rqt to view the camera topics

$ rosrun rqt\_image\_view rqt\_image\_view

Than choose certain topics one by one, than screen shot.

1. **Report**

In your report, there should be your name, SID and as well as your partner(s)’.

Your report should include the screen shots and the message explanations.

Your report will also include the bug report, the reasons and how you solved them. We are trying to cover what could happen in this lab, so this part will not influence your score. However we wish you to treat it seriously.