

Start using ROS with Pepper

Install ros

<http://wiki.ros.org/ROS/Installation>

Make sure to install Kinetic

Install Python Naoqi SDK, need regist

Download and unzip the file to naoqi folder

In your home directory

`mkdir naoqi`

Download: <https://community.ald.softbankrobotics.com/en/resources/software/language/en-gb>

Edit .bashrc file, include following line

```
export export PYTHONPATH=$HOME/naoqi/pynaoqi-python2.7-2.5.5.5-
```

```
linux64/lib/python2.7/site-packages:$PYTHONPATH
```

```
export PYTHONPATH=$HOME/naoqi/pynaoqi-python2.7-2.5.5.5-linux64:$PYTHONPATH
```

Pepper tutorial

There is a chance that this will not work, if not work see the [jsk_naoqi_robot](#) instruction

http://wiki.ros.org/pepper/Tutorial_kinetic

Rviz and pepper pre-config file

`roslaunch rviz rviz`

Locate pepper pre-config file

on the rviz panel, file->open config

the pre config file for pepper is under, you can copy this file and paste in the place you like

`/opt/ros/kinetic/share/pepper_bringup/config`

jsk_naoqi_robot

jsk ros packages are created by The University of Tokyo, they are open sources. `jsk_naoqi_robot` is the package designed for both NAO and Pepper. Simply follow the instruction in the link below. But before doing that, there are some steps need to be made.

Install catkin-tool

jsk packages are normally used with `catkin build` command to build the environment and packages, therefore `catkin-tool` need to be installed in order to run the `catkin build` command.

`sudo apt-get install python-catkin-tools`

catkin-tool references

https://catkin-tools.readthedocs.io/en/latest/cheat_sheet.html

Reconfig work space

Next step is to setup the work space, you can remove the `build` and `devel` folder from the workspace created earlier that were built by `catkin_make`, or you can create a new workspace.

The instruction will remove the `build` and `devel` folder from workspace built by `catkin_make`

Initialise workspace extends to another workspace

`catkin config --init --extend /opt/ros/kinetic`

build workspace

`catkin build`

Now follow the `jsk_naoqi_robot` instruction

https://github.com/jsk-ros-pkg/jsk_robot/tree/master/jsk_naoqi_robot

In case not find `naoqi_node.py` under the directory, the code file can be locate at, copy the code to the directory needed.

http://docs.ros.org/jade/api/naoqi_driver_py/html/naoqi_node_8py_source.html

Modify pepper_bringup launch file in order to get it work

cd /opt/ros/kinetic/share/pepper_bringup/launch

edit the pepper_full.launch file as described in https://github.com/ros-naoqi/pepper_robot/pull/40/files

Launch pepper_bringup

roslaunch pepper_bringup pepper_full.launch network_interface:=enp2s0 roscore_ip:=kate-iMac.local

roscore_ip can be found by running roscore command, see the ROS_MASTER_URI