**rplidar\_python tutorial**

**Package Summary**

A ROS node for rplidar written in python, which (you may need to change port name, if you wanna custom you setting).

Maintainer status: maintained

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Download:https://github.com/DinnerHowe/rplidar\_python.git

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License: TODO

**Overview**

the rplidar\_python package provides a solution for RPlidar sensor usage in ros. This

packge also allow robot launches a 360 degree scanning map through gmapping module

without twisting.

**Hardware Requirements**

to use rplidar\_python, you should get a robot that provides odometry, like turtlebot. Also,

you need a [RPlidar](http://www.slamtec.com/en-US/rplidar/index) sensor. Here we use RPLIDAR 360 laser scanner development kit.

we use RPlidar to replace kinect sensor and we mount it in the position of kinect , thus

kinect tf frame is useful for RPlidar sensor as well.

**Launch Example**

to make a map by RPlidar, you should launch rplidar\_gmapping\_demo.launch.

roslaunch rplidar\_python rplidar\_gmapping\_demo.launch

Or you may wanna see laser frame only by typing following command

roslaunch rplidar\_python rplidar\_demo.launch

**Nodes**

**rplidar\_scan\_ver3.py**

driver for RPlidar. Automatically starts sensor and convert data stream into

[sensor\_msgs/LaserScan](http://docs.ros.org/api/sensor_msgs/html/msg/LaserScan.html) type. sensor publish topic every frame, one frame contain 360

laser data.

**Published Topic**

/scan([sensor\_msgs/LaserScan](http://docs.ros.org/api/sensor_msgs/html/msg/LaserScan.html))

output Laser scans to create the map from

**Parameters**

range\_min (flaot default 0.15)

the min range that laser can scan

range\_max (float default 6.0)

the min range that laser can scan

frame\_id (string default 'laser')

rplidar frame

angle\_max(float default pi)

the max angle that laser can reach

angle\_min(float default -pi)

the min angle that laser can reach

angle\_increment(float default -0.017453292519943295)

angular distance between measurements

scan\_time (float)

time between scans

ranges (float[])

range data

**RPlidar c++ tutorial**

Please check at [here](http://wiki.ros.org/rplidar)