

# Rhoebly Dynamics

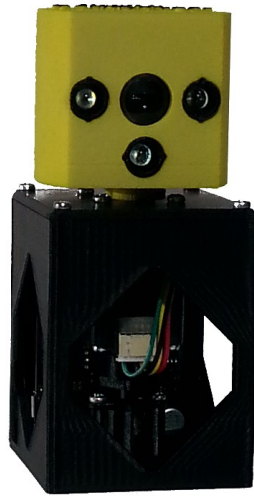
R2D LiDAR – Getting Started – V1.0

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# Rhoeby Dynamics – R2D LiDAR – Getting Started

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## Getting Started with the Rhoeby R2D LiDAR

Thank you for your purchase. Welcome to Rhoeby Dynamics products! This document provides a quick overview of the steps required to run the Rhoeby R2D LiDAR.

### Pre-requisites

To proceed, you will need the following items:

- A ROS enabled PC (for setup, and running the ROS application RViz)
- Your R2D LiDAR device

## Detailed Instructions

### 1. Install/build scanner2d ROS node

download code from <https://github.com/Rhoeby/scanner2d>

place code in sub-directory of catkin workspace

```
do 'catkin_make'
```

```
do 'source devel/setup.bash'
```

### 2. Connect scanner via USB

plug in scanner

type 'lsusb', you should see something like: "Bus 002 Device 074: ID 0483:5740  
STMicroelectronics"

confirm sensor blue LED is flashing

you could verify binary data flow from the scanner, type: 'cat /dev/ttyACM0' (use Ctrl-C to exit)

### 3. Run roscore

```
roscore &
```

Run static tf publisher

```
roslaunch static_transform_publisher 0.0 0.0 0.0 0.0 0.0 0.0 base_laser map 1000 &
```

This allows the scan to be displayed in RViz by providing a transform from the frame of the scanner to the map.

### 4. Run ROS node as shown here (it's using ttyS3, as an example):

```
roslaunch scanner2d scanner2d _port_name:="/dev/ttyS3" _scan_rate:=4
```

The default port name is "/dev/ttyACM0". If you are using a different port, you'll need to specify it on the command line.

### 5. Confirm scanner starts and speeds up to 240 rpm (4 rotations / sec)

### 6. Run RViz

```
roslaunch rviz rviz
```

7. Observe scanner plot data in rviz

in rviz, select "Add"

select "By topic" tab

you should see '/laser\_data' as a topic

select LaserScan which appears under the topic

hit OK

The LaserScan should now be presented in rviz.

For further assistance, visit [www.rhoeby.com/support](http://www.rhoeby.com/support), or send email to 'support@rhoeby.com'.

