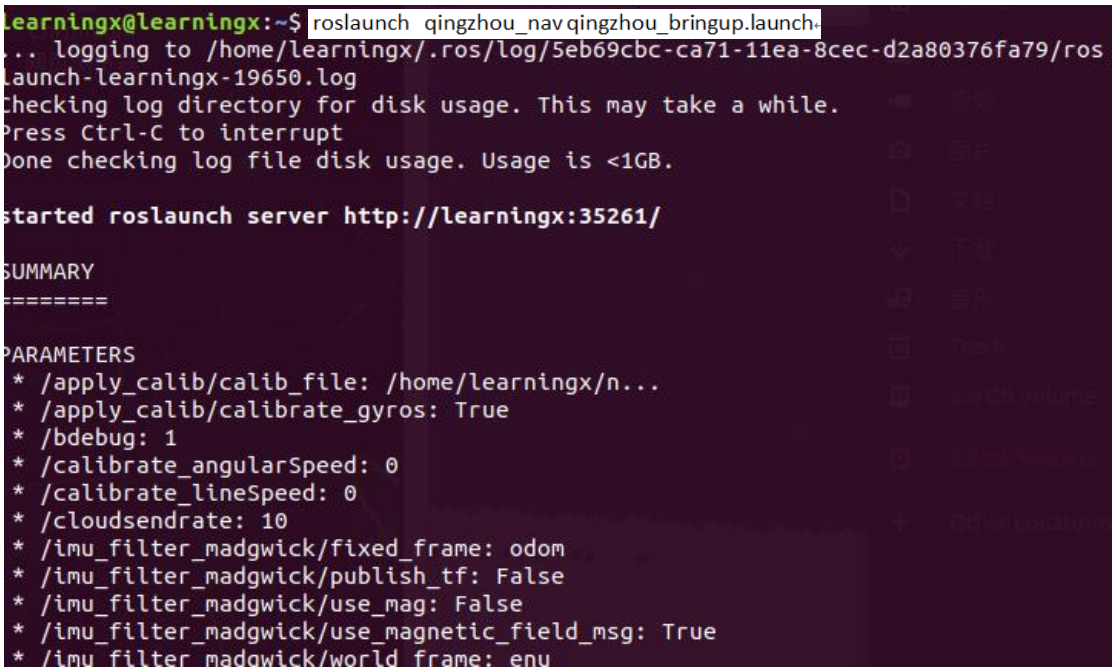
构建地图，启动 rviz 进行地图查看并保存

AI 航团队

1. 构建地图

打开命令终端窗口，输入如下命令行：启动上位机和 stm32board 串口节点

```
roslaunch   qingzhou_nav qingzhou_bringup.launch
```



之后，重新打开命令终端，输入如下指令，启动建图节点：

```
roslaunch  qingzhou_nav qingzhou_hdmap.launch
```

```
learningx@learningx:~$ roslaunch qingzhou_nav qingzhou_hdmap.launch
... logging to /home/learningx/.ros/log/5eb69cbc-ca71-11ea-8cec-d2a80376fa79/roslaunch-learningx-19813.log
Checking log directory for disk usage. This may take a while.
Press Ctrl-C to interrupt
Done checking log file disk usage. Usage is <1GB.

started roslaunch server http://learningx:36345/

SUMMARY
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PARAMETERS
 * /rosdistro: melodic
 * /rosversion: 1.14.6
 * /slam_gmapping/angularUpdate: 0.5
 * /slam_gmapping/astep: 0.05
 * /slam_gmapping/base_frame: /base_link
 * /slam_gmapping/delta: 0.05
 * /slam_gmapping/iterations: 5
 * /slam_gmapping/kernelSize: 1
 * /slam_gmapping/lasamplerange: 0.005
 * /slam_gmapping/lasamplestep: 0.005
 * /slam_gmapping/linearUpdate: 1.0
```
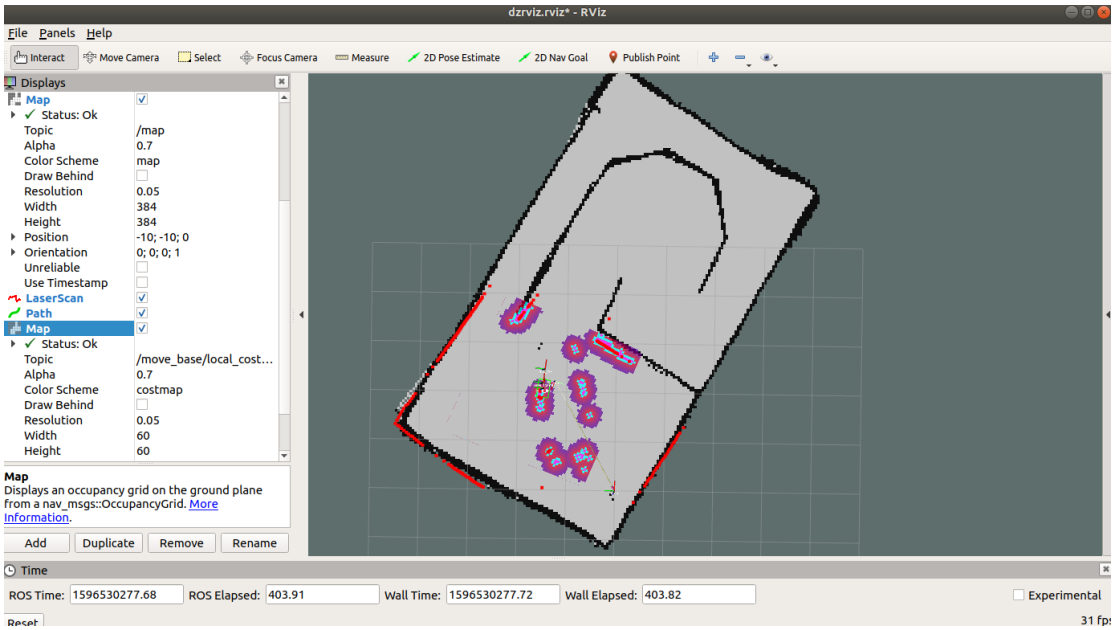

此时，激光雷达启动，下位机 stm32board 开始给上位机上传指令，打开新的终端，输入如下指令：

```
rviz
```

打开 rviz，在 file 里面勾选 file config，打开 qingzhou_ws/src/qinzhou_nav/rviz 文件夹下 gmapping.rviz 文件，可以对所建地图进行观察。



2. 构建地图

建好地图后，对建好的地图进行保存，打开

如下图所示：