

硬件系统

xavier jetpack 4.3 (ubuntu18)

软件环境：

在安装了melodic版本ros环境的基础上

正式安装：

```
sudo apt-get install -y ros-melodic-navigation
sudo apt-get install -y ros-melodic-robot-localization
sudo apt-get install -y ros-melodic-robot-state-publisher
```

gtsam

```
wget -O ~/Downloads/gtsam.zip https://github.com/borglab/gtsam/archive/4.0.0-alpha2.zip
cd ~/Downloads/ && unzip gtsam.zip -d ~/
cd ~/gtsam-4.0.0-alpha2/
mkdir build && cd build
cmake ..
sudo make install
```

fatal error: opencv/cv.h: No such file or directory

```
sudo gedit ~/catkin_legoloam/src/LeGO-LOAM/LeGO-LOAM/include/utility.h
```

```
#include <opencv/cv.h> 改成 #include <opencv2/imgproc.hpp>
```

libparmetis-dev

```
sudo apt install libparmetis-dev
```

- 创建ros工作空间,

```
mkdir -p ~/liosam_ws/src  
cd ~/liosam_ws/src  
catkin_init_workspace
```

- clone lio-sam代码

```
git clone https://github.com/TixiaoShan/LIO-SAM.git
```

- 然后编译

```
cd ~/liosam_ws  
catkin_make -j8
```

- 最后添加环境

```
echo "source ~/liosam_ws/devel/setup.bash" >> ~/.bashrc  
source ~/.bashrc
```

- 运行:

```
roslaunch lio_sam run.launch
```

<https://github.com/TixiaoShan/LIO-SAM>