

cartographer_ros 安装

cartographer_ros github 主页:

https://github.com/googlecartographer/cartographer_ros

cartographer_ros 官方安装指引:

<https://google-cartographer-ros.readthedocs.io/en/latest/>

安装步骤:

```
# Install wstool and rosdep.
```

```
sudo apt-get update
```

```
sudo apt-get install -y python-wstool python-rosdep ninja-build
```

```
# Create a new workspace in 'catkin_ws'.
```

```
mkdir catkin_ws (这里建议换一个名字, 叫 cartographer 就行, 这个工作空间专  
用于 cartographer)
```

```
cd catkin_ws
```

```
wstool init src
```

```
# Merge the cartographer_ros.rosinstall file and fetch code for dependencies.
```

```
wstool merge -t src
```

```
https://raw.githubusercontent.com/googlecartographer/cartographer_ros  
/master/cartographer_ros.rosinstall
```

```
wstool update -t src
```

这一步会报一个 ceres-solver failed 的错误, 需要修改一个网址

```
#进入到 src 文件夹后 ctrl+h 显示出隐藏文件, 打开.rosinstall
```

```
#更改 ceres-solver 中地址改为下面的地址:
```

```
#> >uri: https://github.com/ceres-solver/ceres-solver.git
```

```
# Install proto3.
```

```
src/cartographer/scripts/install_proto3.sh (失败试一下前面加 sudo)
```

```
# Install deb dependencies.
```

```
# The command 'sudo rosdep init' will print an error if you have already
```

```
# executed it since installing ROS. This error can be ignored.
```

```
sudo rosdep init
```

```
rosdep update
```

```
rosdep install --from-paths src --ignore-src --rosdistro=${ROS_DISTRO} -y
```

```
(根据自己版本将${ROS_DISTRO} 替换为 kinetic 或者 indigo)
```

```
# Build and install.
```

```
catkin_make_isolated --install --use-ninja 【此步编译成功 代表安装成功】
```

运行官方数据集 - Revo LDS 机器人：

1. 下载数据集

```
wget -P ~/Downloads https://storage.googleapis.com/cartographer-public-data/bags/revo_lds/cartographer_paper_revo_lds.bag
```

2. 运行数据集

```
roslaunch cartographer_ros demo_revo_lds.launch \
```

```
bag_filename=${HOME}/Downloads/cartographer_paper_revo_lds.bag
```