ros-matlab仿真与安装总结

ros的安装这里不再赘述,只是提供i项目所需工具包的教程

1. matlab的linux版安装

matlab2018破解版资源网盘:
链接: https://pan.baidu.com/s/1W6jWkaXEMpMUEmIl8qmRwg 密码: igx6
包含的文件有:
Matlab2018aLinux64Crack.tar.gz , R2018a_glnxa64_dvd1.iso , R2018a_glnxa64_dvd2.iso

参考这篇博客:
https://blog.csdn.net/zzc15806/article/details/82313072

密匙：09806-07443-53955-64350-21751-41297（crack中readme有记录）

添加matlab图标参考这篇博客的后半部分(关于添加图标):
https://blog.csdn.net/m0_37601622/article/details/82731879

完成matlab的安装设置之后,要做善后工作(删除原来的文件,取消挂载)可参考:
https://blog.csdn.net/KNIGH_YUN/article/details/86670679

2. Robotics System Toolbox的安装

可参考这两篇博客 https://www.cnblogs.com/chenxuanzhen/p/8987221.html
http://blog.sina.com.cn/s/blog_a16714bf0101hycq.html

这里用的版本是robotic toolbox for matlab (release 9.1)，可以从我的网盘下载 链接：
https://pan.baidu.com/s/1CqUXj9MQuHoD7SWF9ZtYTA 密码：r84y

3. Turtlebot3 安装

首先在ubuntu上安装必要ros依赖包,这里有两个版本,选择自己ros对应的版本即可

```
 #melodic 版本
$ sudo apt-get install ros-melodic-joy ros-melodic-teleop-twist-joy ros-melodic-
teleop-twist-keyboard ros-melodic-laser-proc ros-melodic-rgbd-launch ros-melodic-
depthimage-to-laserscan ros-melodic-rosserial-arduino ros-melodic-rosserial-python
ros-melodic-rosserial-server ros-melodic-rosserial-client ros-melodic-rosserial-
msgs ros-melodic-amcl ros-melodic-map-server ros-melodic-move-base ros-melodic-
urdf ros-melodic-xacro ros-melodic-compressed-image-transport ros-melodic-rqt-
image-view ros-melodic-gmapping ros-melodic-navigation
```

```
 #kinetic 版本
$ sudo apt-get install ros-kinetic-joy ros-kinetic-teleop-twist-joy ros-kinetic-
teleop-twist-keyboard ros-kinetic-laser-proc ros-kinetic-rgbd-launch ros-kinetic-
depthimage-to-laserscan ros-kinetic-rosserial-arduino ros-kinetic-rosserial-python
```

```
ros-kinetic-rosserial-server ros-kinetic-rosserial-client ros-kinetic-rosserial-
msgs ros-kinetic-amcl ros-kinetic-map-server ros-kinetic-move-base ros-kinetic-
urdf ros-kinetic-xacro ros-kinetic-compressed-image-transport ros-kinetic-rqt-
image-view ros-kinetic-gmapping ros-kinetic-navigation
```

接下来开始安装 Turtlebo3 安装包

```
$ mkdir -p ~/catkin_ws/src
$ cd ~/catkin_ws/src/
$ git clone https://github.com/ROBOTIS-GIT/turtlebot3.git
$ git clone https://github.com/ROBOTIS-GIT/turtlebot3_msgs.git
$ git clone https://github.com/ROBOTIS-GIT/turtlebot3_simulations.git
$ cd ~/catkin_ws && catkin_make
```

https://blog.csdn.net/u010853356/article/details/79226764

4. 安装Turtlebot3的激光雷达等相关功能包

5.安装python3的功能包pygame

先安装pygame的依赖库

```
$ sudo apt-get install python3-dev mercurial
$ sudo apt-get install libsdl-image1.2-dev libsdl2-dev libsdl-ttf2.0-dev
```

安装pygame的高级功能,如添加声音等功能

```
$ sudo apt-get install libsdl-mixer1.2-dev libportmidi-dev
$ sudo apt-get install libswscale-dev libsmpeg-dev libavformat-dev libavcodec-dev
$ sudo apt-get install python-nump
```

开始正式安装pygame

```
 #更新pip(如果是旧版本的话,可用"pip --version"看)到pip3
$ sudo apt-get install python3-pip
$ sudo pip3 install --upgrade pip
$ sudo pip3 install pygame
```

接下来验证pygame是否安装完成,运行一个pygame自带的小游戏,如果过安装正确应该有图像和声音

```
$ python3 -m pygame.examples.aliens
```