

第一次进度汇报

1.打开REALSENSE

1. 连接realsense摄像头
2. 在终端输入命令 realsense-viewer查看

2.REALSENSE与ROS配合使用

注意：realsense-viewer不能与ROS同时使用!!!

2.1 利用ORK进行识别

建立模型

```
roslaunch object_recognition_core object_add.py -n "coke " -d "A universal can of coke" --commit
```

```
roslaunch object_recognition_core mesh_add.py <YOUR_OBJECT_ID> <path to ork_tutorials/data/coke.stl> --commit
```

训练

```
roslaunch object_recognition_core training -c `rospack find object_recognition_core`/conf/training.ork
```

物体识别

启动D435:

```
roslaunch realsense2_camera rs_camera.launch filters:=pointcloud
```

启动linemod方法:

```
roslaunch object_recognition_core detection -c `rospack find object_recognition_core`/conf/detection.ork
```

启动rviz

```
rviz
```

2.2 利用find_object_2d进行识别

```
roslaunch realsense2_camera rs_camera.launch
```

```
rostopic list
```

```
roslaunch find_object_2d find_object_2d image:=/camera/color/image_raw(二维图像话题)
```

2.3 利用find_object_3d+Rviz进行识别和指向

```
roslaunch realsense2_camera rs_camera.launch

roslaunch find_object_2d find_object_3d.launch

(修改了opt文件下的find_object_3d.launch):

<remap from="rgb/image_rect_color" to="/camera/color/image_raw"/>
<remap from="depth_registered/image_raw"
to="/camera/aligned_depth_to_color/image_raw"/>
<remap from="depth_registered/camera_info" to="/camera/color/camera_info"/>

rviz(添加tf)
```

3.已完成

1. 对物体的粗略识别（具体识别用YOLO实现，还需考虑具体场景问题）
2. 对物体位置的指向（在Rviz中用树状图表示）