

Task 0 - Pollinator Bee

Understanding the V-REP World

In this tutorial you will learn how to **use V-REP** for task-1.

NOTE: V-REP is a real world physics **simulator**. In this simulator, you can set up a world and simulate your robot moving around in this world.

Here are the steps to understand the simulator:

1. Run roscore by typing the following command in your terminal:
roscore
2. Now launch the simulator by typing the following command in the V-REP directory:
./vrep.sh
3. Open the “File” tab in V-REP. choose “Open scene...” and choose the following file from the *Task 0/Task* folder:

task0_pb.ttt

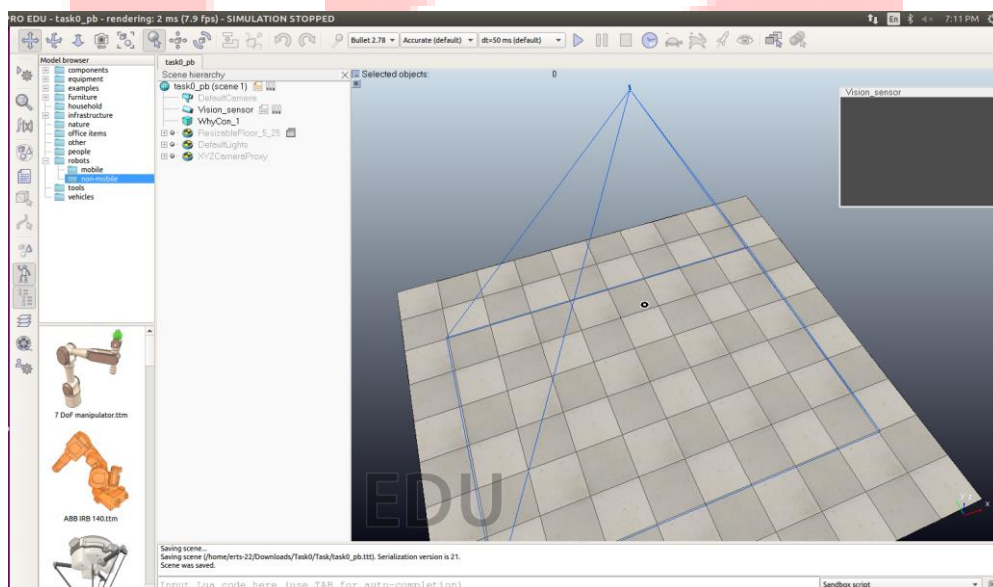


Image: *task0_pb.ttt*

5. Run the simulation by clicking the play button in V-REP.
6. Check all the topics published by V-REP. Run the following command in the terminal to check all the topics published by V-REP:

rostopic list

The above command will list all the topics. You will find these topics “*visionSensor/image_rect*” and “*visionSensor/camera_info*” which is published by the camera from inside the simulator. All information from the camera is provided by these topics. **External packages need to simply subscribe to these topics to acquire the data.** To check the camera output type the following command:

```
roslaunch image_view image_view image:=/visionSensor/image_rect
```

The above command will show the output of camera as shown

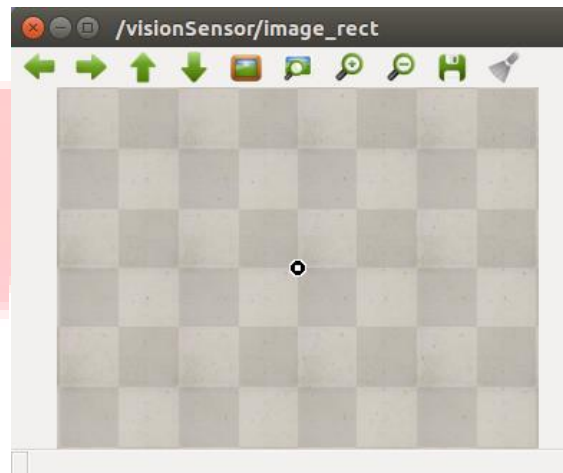


Image: visionSensor/imag_rect Output