Task 0 – Simulation Software Installation

This file contains instructions to install the following software:

- V-REP (Virtual Robot Experimentation Platform)

What is V-REP?

- The robot simulator **V-REP**, is based on a distributed control architecture: each object/model can be individually controlled via an embedded script, a plugin, a ROS node, a remote API client, or a custom solution. This makes V-REP very versatile and ideal for multi-robot applications. Controllers can be written in C/C++, Python, Java, Lua, Matlab or Octave.
- V-REP is used for fast algorithm development, factory automation simulations, fast prototyping and verification, robotics related education, remote monitoring, safety double-checking, etc. It can be used as a stand-alone application or can easily be embedded into a main client application: its small footprint and elaborate API makes V-REP an ideal candidate to embed into higher-level applications. (source)

Installation Instructions for V-REP in Windows:

Note: This document offers a very concise walk-through of the V-REP installation. For detailed explanation or user manual, kindly visit the page: V-REP user manual.

- Download **V-REP** for your **Windows** machine from the links: 64-bit / 32-bit.
- Double click the downloaded file to run the setup. Accept the terms and conditions to install the software.
- During the runtime, it may ask to run the Visual C++ Redistributable for Visual Studio 2010 and 2015. To install the required libraries, click 'Yes'.
- A shortcut on Desktop will be created. Double-click on it to launch V-REP. The start screen of V-REP is shown in Figure 1.
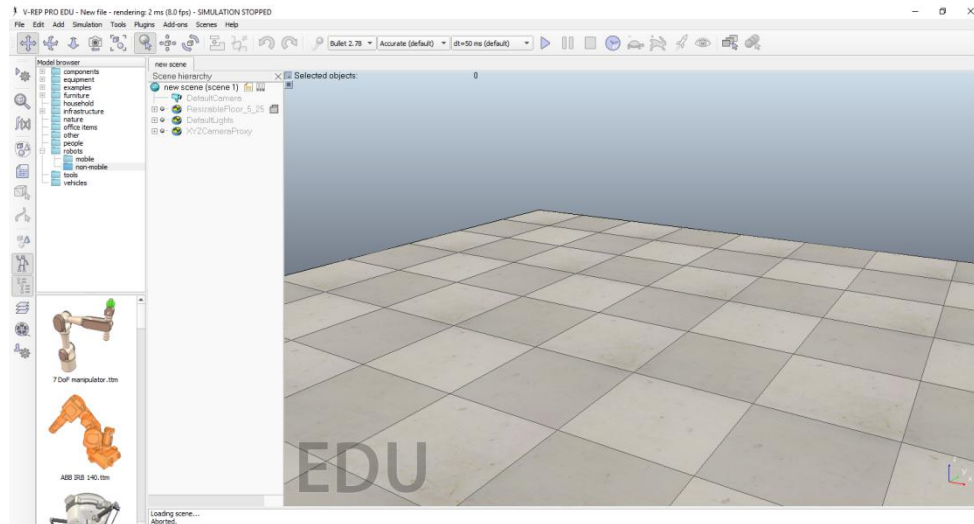
Figure 1: Start screen of V-REP

Installing V-REP on Ubuntu 16.04

This file will help you to install V-REP (Virtual Robot Experimentation Platform) on your Linux Ubuntu (16.04) machine.

You must install **V-REP pro edu** in **Ubuntu 16.04** on your PC/Laptop.

You can download the **Ubuntu 16.04 desktop image here:** (64-bit) / (32-bit) [Direct Download].

Installing instructions:

This document assumes that the host OS on which V-REP is to be installed is **Ubuntu 16.04 or higher version**. This documents offers a very concise walk-through of the V-REP installation.

For a detailed explanation of VREP , please visit the V-REP user manual installation page.

Follow the guidelines to run V-REP:

➢ Download V-REP for Ubuntu (64-bit) / (32-bit) [Direct Download].

➢ After downloading **V-REP_PRO_EDU_V3_5_0_Linux.tar.gz**, right click it and select open with archive manager and extract to your desired location.

➢ Open terminal and using cd command enter into the directory

V-REP_PRO_EDU_V3_5_0_Linux.

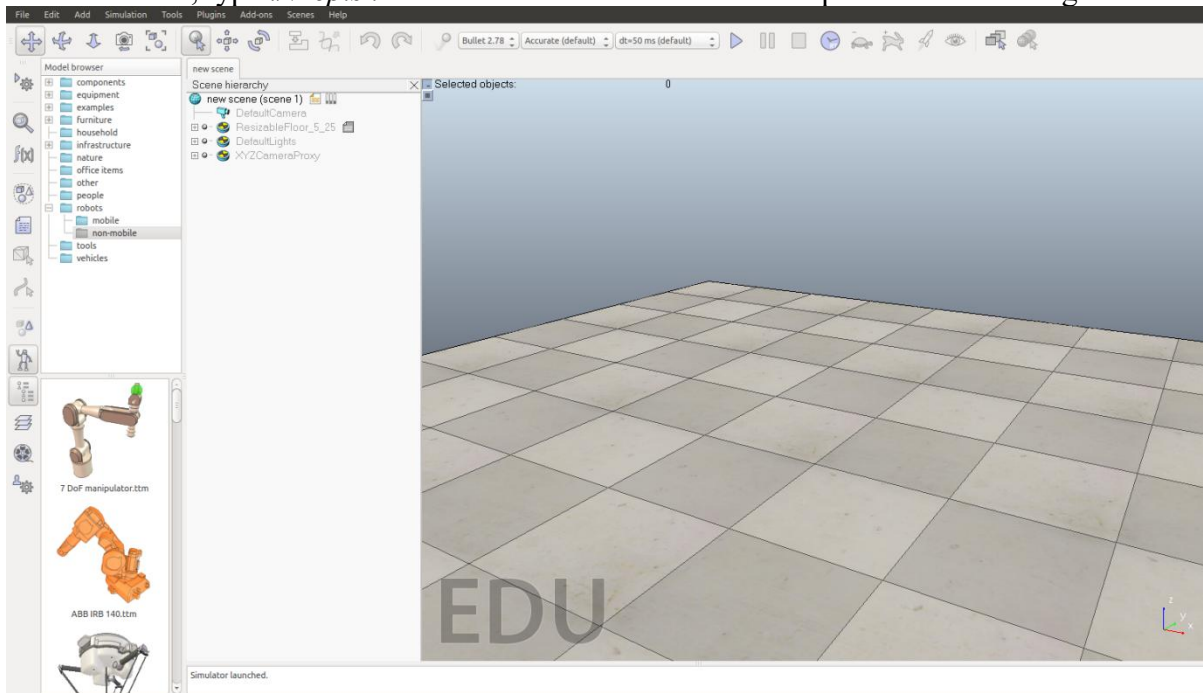• In the terminal, type *./vrep.sh* to run VREP. A window should open as shown in Figure 1 below:

Figure 1: V-REP Simulator