UNIVERSAL ROBOTS Support

OFFLINE SIMULATOR - E-SERIES - UR SIM FOR LINUX 5.13.0

Offline Polyscope simulator for Linux version 5.13.0

Last modified on Nov 28, 2022

URSim on Linux

Installing the Universal Robots simulator software on Linux.

The information on this page applies to software versions 5.0 and newer.

The simulator has been tested on the Linux Mint 17.1 Rebbecca distribution (Ubuntu 14.04 based). Universal Robots gives no guaranties/do not provide any support with respect to the execution of this software on other Linux distributions.

You need to install JDK 1.8 and similar

NOTE: Not all functions works compared to a real robot, please see below.
- Emergency stop can not be used
- Input IO state can not be set
- Paths are perfect
- Collisions with self or with surrounding objects do not work
- Force mode will not work

Introduction

This mini guide explains how to install the Universal Robots software (GUI and controller) on Ubuntu Linux.

With this software installed it is possible to create and run programs on a simulated robot, with some limitations. The most important of these limitations is that it is not possible to simulate digital/analogue input to the robot. Furthermore touch screen set-up and network set-up from within the GUI won't work. The robot is able to communicate via TCP/IP, if this is configured on the host machine.

The basic prerequisites for the software is Python 2.6.

Install the software

Note: The installation script will impact certain packages on your host system. Before proceeding with the installation using the script, make sure you are aware of the possible implications for packages already installed on your host system. Detailed information can be found here.

First download the software provided here and save it to your home folder. Change to your home folder and extract the file to the root of your home folder:

```
cd ~
tar xvzf [FILE NAME]
cd ursim-5.X.X.XXXXX
./install.sh
```

Now you can simply run the software from the terminal by running:

```
cd ..
ursim-5.X.X.XXXXX/start-ursim.sh
```

Or, if your prefer, use the short-cuts created on your desktop.

Enable Modbus server in URSim

As per default, the Modbus server is activated. In case it is not then open the file starturcontrol.sh which is located in the installation folder using a file editor.

Modify this line:

```
HOME=$SCRIPT_DIR $SCRIPT_DIR/URControl &>$SCRIPT_DIR/URControl.log &
```

into:

```
echo <linux_password> | sudo -S HOME=$SCRIPT_DIR $SCRIPT_DIR/URControl &>$SCRIPT_DIR/URControl.log &
```

where password is the login password for Linux