

EL5223: Assignment 1 on v-rep

1. Install v-rep (PRO EDU version) from <http://www.coppeliarobotics.com>.
2. Configure a simple RR (revolute-revolute) manipulator in v-rep. For this, add three cuboids (look under the menu item Add -> Primitive Shape). Make the first cuboid a static object and the other two cuboids dynamic (double-click on the object name in the Scene hierarchy pane and click on the “Show dynamic properties dialog” in the window that opens on double-clicking; uncheck “Body is dynamic” to make it static). Connect the first and second cuboid through a revolute joint using the following steps:
 - add a revolute joint (using Add -> Joint -> Revolute); position and orient the revolute joint appropriately using the Object/item shift and Object/item rotate buttons in the toolbar.
 - make the revolute joint a child of the first cuboid by clicking and dragging the revolute joint entry in the Scene hierarchy pane onto the entry for the first object
 - similarly make the second cuboid a child of the revolute joint.

Connect the second and third cuboids through a revolute joint using similar steps as listed above.

Here, the first cuboid is the fixed base of the RR manipulator and the second and third cuboids are the two links of the manipulator.

Submit a print-out of the view in your v-rep window once you have configured the RR manipulator as described above.