

How to Play?

What you are about to interact is initial phase of for developing an interactive Web-based environment for robotic education and Tele-control through internet.

This version is based on the VRML/Java EAI.

How to use the menu:

- a) First position the robot on the table (table is used as a metaphor in defining the base location of the robot). The world coordinate frame is as shown. $X=0$ and $Z=0$ corresponds to the middle of the table.
- b) The robot has a default joint located on the table with the axis of rotation along the positive y axis (joint zero).
- c) The remaining three joint axes are define based on the VRML specifications. For example if you want the axis of rotation of the first joint to be along the X-axis of the world frame you set (1 0 0 1). The last parameter set the size of the connecting link. Note all the joints in this version are assumed to be turning joints.
- d) After you have selected the nominal configuration of the joints and links, a thee-fingered gripper is automatically attached to the last link.
- e) Now you can resize the links using the resize menu or move each joint using the Move the Joints menu.
- f) You can also pick-up an object on the table. To do this, you have to interactively move the gripper to the top of the object. If the object is within the reach of the fingers then you can grasp the object. If it is not, you can not grasp the object.
- g) You can also change the view of the workspace from the world to the view from the gripper.
- h) After the object is grasped, you can place it at the PLACE location.

The project is at its initial phases. Any comments and any interests about this initiative should be sent to Prof. Shahram Payandeh (shahram@cs.sfu.ca).

There are many extensions to this project and if you would like to join, please do send an e-mail.