

Homework #5 - Robot

README.txt: Don't forget to cover how to manipulate your robot.

In this project you will design and draw a robot in 3D. Use `glutWireCube` and `glutWireSphere` as the pieces to this robot. Warp and manipulate them using scales, translates and rotates such that you have a robot with a head, body, forearm, upperarm, thigh and lower leg as demonstrated. You must have two independent rotations (usable through the keyboard) for the elbow and the shoulder and these must be constrained to “make sense” according to human limits. Also, make sure that you have a connected robot when rotating the shoulder and then rotating the elbow. These rotations are linked in a very peculiar fashion. You must also allow the user to rotate the entire robot along its center.

Extra Credit:

1. Add the ability to toggle between Wire objects and Solid objects.
2. Add more degrees of freedom and possibly axis of rotation for the pivot points. Discuss your results and be sure to describe the functionality in the readme.