

CSI 494 — SpTp: Computer Graphics

Homework #6, Due before class on 11/9

In this homework you will be drawing a robot with some movable joints. You may follow the example on pages 156–159 for ideas on how to get this to work. This project will test your understanding of using transformations inside OpenGL.

Project Requirements:

1. Draw a robot using only `glutWireCube` and `glutSolidSphere`. The robot should have a sphere for a head, a cube for a body and a total of 8 cubes representing the arms and legs (2 for each arm and 2 for each leg).
2. Your robot should have at least eight independent rotations available by using the keyboard. These rotations should include the elbow, the shoulder, the knee and the hip. Bind these rotations to 8 separate keyboard inputs.
3. Lastly, produce a method for rotation about the robot by using the 't' key.
4. Documentation: Clearly describe your input. Discuss any difficulties you may have had or improvements that you could make to this program.