University of Massachusetts Boston

CS460

CS460 Fall 2022
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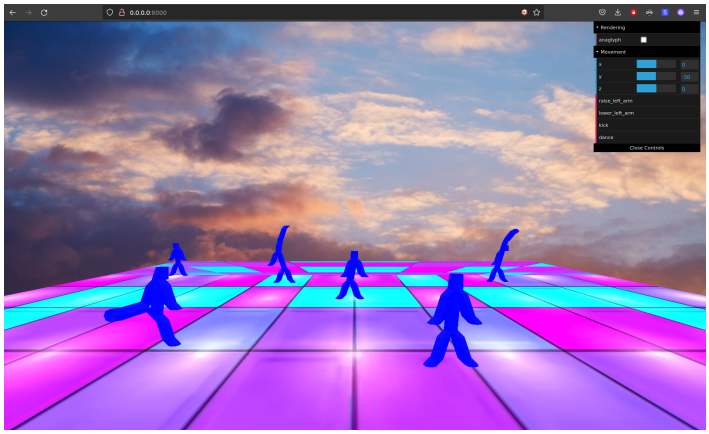
Assignment 7: Skinned and Animated Robots!

We will add a mesh to our robot bones and then create an animated crowd.



Starter code for assignment 7. After pulling from upstream, there is the folder `07` in your fork. Please copy `index.html` and `robot.js` from assignment 6 over or use Daniel's solution from `https://cs460.org/shortcuts/28`. Also, please don't forget to copy the images.

Part 1 (50 points): Please skin the robot using the `HELPER.cylinderSkeletonMesh` function. You will need to call that function 5 times. Note: We started this process in class and there is a work-in-progress `robot.js` that can be helpful at `https://cs460.org/shortcuts/29/`. Also, the slides around `http://slides.com/haehn/cs460_lecture26#/26` explain the HELPER function.

Part 2 (30 points): Allow the placement of multiple robots. Daniel's code includes the `THREE.Raycaster` to change the position of a robot when shift+clicked on the floor (see `https://cs460.org/shortcuts/28`). Now, rather than changing the position of the robot, we want to create a new one. Please change the code in `index.html` to work with `robot.js` from part 1.

Part 3 (19 points): Add functionality that allows to animate all placed robots. **For example, if the user clicks dance, all robots on the floor start dancing.** This can be done using an array as shown in the `https://cs460.org/showcase/06` demo from class.

Part 4 (1 points): Please update the screenshot above with your own and then post the github pages url here:

`https://jainkhere.github.io/cs460student/07/`

Bonus (33 points):

Part 1 (18 points): Please add a head (box or sphere or whatever) to the robot object and use a texture to skin it.

Part 2 (15 points): Please add at least one video texture to the scene. And, of course, add some music for the dancing.