Pendulum Simulation - Part 2

Adding a Light and Wall Collision Detection

CSC 415

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(Due at Midnight on April 8, 2019)

Now that you have the basic components in place, we want to make a small incremental move forward to enhance the realism of the scene.

Repo Management

Make sure that you have your "Space and Movement" commit that was submitted for grading was tagged and that it was merged with your master. Create a new branch from your master and start your development from there.

Prohibit Moving Outside of the Room

The camera should not be able to move outside of the room and it should not be able to see "through the wall" (unless you have a window in place).

Add a Single Light

Add a light source in the middle of the ceiling in your room. Make it normal white light like one would expect from a bright incandescent light bulb. Note -- you don't actually have to draw the light at this point, just create the light source. You may need to adjust the ambient lighting as well as the global lighting.

Add Material Properties

So that they will respond to the new light source, add material properties to the items already in the room. If you have items that are metal or polished wood, try to increase their shininess. Build your code and makefile in such a way that lighting can be turned on/off with a -DLIGHTING compiler definition.

Turnin via Merge Commit

Your work should continue on your branch, or sub-branch of that branch, until time for your final commit on April 5th. The merge request to your master should not only have an appropriate commit message, but also should be TAGGED "Walls and Light". You need to then complete the merge to your master on or before April 5th.