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Final Program Write-Up

The required elements are:

- The user should be able to move through the world. (10 points)
    o **Done**
- The world should be recognizable and be more complicated. (10 points)
    o **Done**
- The world should be shown using a reasonable perspective projection. (5 points)
    o **Done**
- The world should have walls and a floor. (10 points)
    o **Done**
- Movement should be limited to within the bounds of the walls. (10 points)
    o **Done**
- You should utilize one shape created using the built-in objects in geometry.js, as in Section 9.7. (15 Points)
    o **Done**
- You should use at least one new texture, either created, or found from the web. (10 points)
    o **Done**
- You need to cite where you found the image from the web in the comments of your JavaScript.
    o **Done**
- Create a brief (10-30 second) video clip of you program in action. (5 points)
    o **Done**

The optional elements used are:

- Include a (usefully) animated object. (5 points)
    o **Done**
- Use more than one texture. (5 points)
    o **Done**
- Use the other method of developing a texture (web or created). (5 points)
    o **Done**
- Be able to reset the location and orientation of the viewer to the starting state. (5 points)
    o **Done**
- Have at least two other pre-defined viewing positions that can be jumped to using a key. (5 points)
    o Each location should have a different position and orientation
    o **Done**
- Have the user be able to jump up (then, down automatically) in the world by pressing a key. (10 points)
    o **Done**
- Allow the user to dynamically change the field of view, within reasonable values. (5 points)
    o **Done**
- Allow the user to rotate in 45 degrees increments and move accordingly. (15 Points)
    o **Done**

Program description:

In order to move around in the world, the user will press "w" to move forward, "a" to move left, "s" to move backwards, and "d" to move right. To rotate the user will use "q" to make a left rotation, and "e" for a right rotation. To jump, the user will use the "space bar" and can be held to hold a double jump. The user can jump to 2 pre-defined viewing positions with a changed orientation by pressing "2", "3", or can go back to the original starting position by pressing "1". Lastly, the user can dynamically change their field of view by pressing "p". This will change it from 90° to 110°, 110° to 130°, and 130° back to 90°.