Patrick Chu

Professor Phillips

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Project 1 reflection

For my final project, I attempted to render a 3D scene involving a cigar and a single plane as a reference. For the plane, I simply used large right triangles to make the body of the plane. Above the plane sits the cigar, which was roughly rendered using a cylinder, part of a sphere, and a torus. The cylinder was the most obvious choice of shape for the body of the cigar, which was simply a cylindrical object. The cap or mouth of the cigar where the end rounds I decided to use the top half of a sphere in order to make it appear rounded at the top, and then for the wrapper I utilized a torus-like object. Anyone that uses the program will be able to utilize the following keyboard and mouse controls to navigate the scene:

A: strafe horizontally left

S: move directly backwards

D: strafe horizontally right

W: move directly forwards

Q: move directly up

E: move directly down

Mouse movement will pan the camera in the direction of the mouse movement, and the scroll wheel shall increase the speed of movement, up for faster, down for slower.

One of the few custom functions in my code is the inclusion of a key callback to change the view from a projected view to orthographic view. Without it, the key press would change the view back each frame that the “p” key was pressed down, where the current function executes the function only once per key press.