

Project 1G

Windows Pipes Screensaver in WebGL

Overview

You will be given starter code, which has been taken from this tutorial:

<https://webglsfundamentals.org/webgl/lessons/>

You will need to change it so that it animates like the Windows “Pipes” screensaver. It does not need to be smooth, lighted, nor exactly like the original screensaver.

Understand Given Code

1. All of the code that you need to edit is in `webgl.html`, but there are other files in the `resources` folder that it uses for the geometry, matrices, and CSS. Take some time to fiddle with the numbers and see the result.
2. Currently, all it will do is draw 100 spheres and 100 cylinders at random angles. Recognize where it is in the code, what each part represents and what happens if you move this into the “`drawScene`” function.

Expectations and Plan of Action

1. Only need to draw 1 pipe at a time.
2. A pipe should start with a sphere, then extend with cylinders in the same direction.
3. At random, add a sphere with a new direction (90 degree turn in some direction) and continue to add cylinders in that same direction.
 - a. Add some cases to prevent “falling off” the canvas.
4. Determine a stopping point for the number of things to draw (your choice) and clear the canvas to start drawing another pipe.

What to Turn In

Your `webgl.html` and any other files that you made edits to in the process.