This exercise is an introduction to WebGL with Three.js. We’ll view the results in class on the due date. There may even be a fabulous prize.

The basic requirements, worth 90% credit, are to create a 3D flower out of Three.js geometry primitives (i.e. don’t just open up a 3D model of a flower and display it). There should be a function that makes the geometry for a part of the flower, like a petal, that is used multiple times in different places. The flower should use color gradients. It doesn’t have to be realistic—you could use triangular petals and a blocky stem, for example. The flower should rotate slowly or otherwise move, in addition to camera motion, e.g. with the trackball controller. The program should use lighting and hidden surface removal.

The remaining 10% credit will be given for making the flower look more realistic and for adding morphing to the flower, so that it changes its shape as a slider is moved. For example, a slider could control the flower opening or closing, bending in the wind, etc.

You may start from any of the Three.js examples. One possibility would be the Three.js morph target example, http://mrdoob.github.com/three.js/examples/webgl_morphtargets.html. Submit your program by installing it so that it appears under the appropriate link on the projects page, and turn in the program information sheet.

Optional extensions that may help you win the fabulous prize: texture mapping, 3D rendering, drawing many flowers in a field, skybox, etc.
CS 352 Project 7: 3D Animated Flower
Grading Sheet

Name __________________________ Date turned in ________ Late? ______

Parts of the program I didn’t get to work:

Comments on this assignment:

----------------------------------------- For grader’s use -----------------------------------------

3D Flower (70)
• Function for petals or other parts that are used repeatedly
• Flower rotates or moves in another way

Lighting, hidden surface removal, and trackball or other camera controller (10) ______

Flower looks more realistic and morphs between two or more positions (10) ______

Programming style, submission process (10) ______