TCSS 458 Computer Graphics, Winter 2019

HW5, The "Lionsgate Intro"-inspired Animation

Due: Your work must be submitted to Canvas by 5:50 PM on Thursday March 14

There is no pre-approved late deadline.

You must demo your work in class on March 14.

Watch the Lionsgate gear animation found at http://www.youtube.com/watch?v=NX4rMOsFJWE We are interested only in the spinning gears which are featured in the first 10 seconds of the clip.

Using WebGL, create a similar animation using the Lionsgate intro as your inspiration. You are not required to faithfully reproduce any part of the intro, but your animation should feature a camera moving across a collection of rotating gears and shafts that form a convincing mechanism. (6 gears on a single shaft is NOT a convincing mechanism. As a minimum, some of the gears should drive other gears and no gear should be stationary or spinning all by itself.)

The scene (your collection of gears) must include at least 6 different gears overall and these must include at least 4 different gear designs contributed by other students in the class. In a comment at the top of your main file, identify the students whose gears appear in your animation.

The animation must be a loop that repeats indefinitely.

The user must be able to slow the speed of the animation by pressing the s-key (for slower) and make the animation run faster by pressing the f-key (for faster).

Your animation must begin with a gradual increase in the lighting from complete darkness to "normal" as seen in the Lionsgate clip.

During your animation, the camera must move. Your implementation of the camera motion must use changes to a lookat matrix together with a Bezier curve (to be discussed in lecture soon). The exact movement of the camera is up to you, but at some point, it should be apparent that the camera has moved along a curve and not merely in a straight line.

You may add additional scenery and actions if you wish, but everything in your animation must be developed by you. Code found on the internet is not acceptable. The gears must clearly be the focus of your animation, so don't get carried away if you introduce additional objects. You may add music if you are able to.

You will have about 2-3 minutes to present your animation. You will be using the lecturer machine and your HW5 submission will be available for you to launch using the Chrome web browser. Your application should require no special setup, so be sure your program is self-contained and ready to run. This means all needed files and folders should be included in your Canvas submission (which should be a zip file).

We will vote for best animation.