

Creative Scene

Objective: The goal of this assignment is for you to apply several of the computer graphics concepts we have learned in the course this semester.

Instructions:

- Using Three.js in CodePen, you will create a scene on your own (or in a group) that is **either interactive (controlled by the user) or animated (moves on its own)**.
- Your scene should utilize as many as possible, but at least five (and one **MUST** be either user interaction or animation) of the graphics concepts we have covered:
 - hierarchical modeling
 - lighting and shading
 - cameras and projections
 - materials and texture-mapping
 - importing external models
 - particle systems/effects
 - user interaction
 - animation (using delta time)
 - physics (using Cannon.js)
 - custom shaders
- While it would be hard to do everything on this list, **please show a variety of skills**.
- If you do an animation, the animation should have at least **two** independently moving objects (this could be two different arms of a robot, though).

Grading will be in terms of the following requirements:

- (50%) Implementation of at least five of the topics named above
- (20%) Quality, cleanliness, and organization of code and documentation
- (20%) Creativity of the scene
- (10%) Completeness of description

Submission:

You will have two and a half weeks to complete this assignment.

When you have completed your assignment, **please submit the link to your CodePen project along with a brief reflection (3-4 paragraphs)** describing your submission and the features (see the list at the top of this page) that you demonstrated (maybe include a few screen shots of really cool things), along with any challenges you faced during implementation and how you overcame them.