As my final project for ECE462: Interactive Engineering Graphics class, I implemented the board game ‘Battleship’ with Three.js. The game features single player mode against a crude AI and 3D graphics of ships and the board.

Controls

* Left-click to rotate the entire board
* Use the mouse wheel to zoom
* Right-click to translate the board
* All other commands are done through the input box at the bottom of the window

Instructions

* First, enter two coordinates representing the locations of the end points of a ship (For example, if you want to place a ship of length 4 at (0,A) and (3,A), then enter ‘0a 3a’ without quotes, case insensitive. Ships cannot overlap. Place as many ships as you want, but the AI only has three ships
* Once you are done placing your battleships, click the play button
* To make a move, enter a move in the form ‘4g’ or ‘a4’ in the textbox and press enter
* A successful hit is colored red, and a miss is colored blue
* You get an extra turn after a successful hit

The water background is represented by lots of small rectangular solids textured with a water image, each the size of one block of the board. When a move is made, the corresponding cube is colored appropriately. The ships are drawn by extruding connected points. AI was written by me, and it may perform poorly in some cases, but the main focus of this project was the graphics aspect. If you have any further questions, please let me know.