Asteroids (Functional Requirements)

1. Must substantially implement the Asteroids game play. This is a ship that starts in the center and has a bunch of asteroids float around it, with the player trying to clear the screen, and every once in a while a UFO shows up that randomly shoots bullets around.  ***No friction on the player ship!***
   1. Player starts with three lives.
   2. Hyperspace ability, smartly place the ship in a "safe" location.
   3. You can decide how many and how often the ship can fire, but it better be at least 4 active missiles.
   4. Must include both UFO types.
   5. Use the scoring system described on the wiki page, including when UFOs appear, and new lives given.  You'll have to decide how much to score when asteroids are hit and destroyed.
   6. Utilize three different asteroid sizes.  Largest break into three, middle break into four.
2. Use HTML5 2D Canvas rendering.  The example is in 3D, but you are working in 2D.
3. Must utilize particle effects; again look at the example gameplay clip.
4. Must use sound effects.  Let's plan on Google Chrome as the only browser that has to be   
   supported for sound.
5. Presentation must include at least the following:  
   1. Menu: New Game, Controls, High Scores, Credits
   2. During Game Play  
      1. Current Score
      2. Current Level
      3. Number of Lives Left
   3. User ability to change controls.
6. High Scores are persistent between gameplay sessions, persisting to the server.
7. AI Component:  Attract Mode (Maybe extra credit).  
   1. Begins after 10 seconds of inactivity on the Main Menu.
   2. Ends when the user moves the mouse or presses any keyboard key.
   3. During Attract Mode the AI player must be able to clear one full level of asteroids, taking at least 60 seconds to do so.
8. All pages, code, and assets must be served from a NodeJS server.

Development Milestones

# The following are the development milestones we developed in class:

1. Ship Rendering & Movement : by 3/21/2014
2. Asteroids moving, collision detection : 3/28/2014
3. Particle system, projectiles doing things : 4/4/2014