**Full Page Description** **of your 3D world** (10 points)

**Nick Greenquist – Race Track**

The requirements for this project are:

1.  An idea that shows off your imagination and creative ability.

2.  NPCs that interact with each other and their surroundings autonomously.

3.  An avatar or camera strategy that allows us to explore the world.

4.  A Unity terrain that rewards exploration.

5.  At least two advanced steering algorithms.

|  |
| --- |
| Describe your world in terms of the terrain you created and the characters that inhabit it including their appearance, behavior and motivation (2 points).  I am going to create a race track type terrain. The terrain will be a large open grassy area with a road that goes around. The characters that inhabit the terrain will be cars. There might also be some spectators characters, or maybe a pit stop. Cars will race around the track and the I haven’t decided what the spectators will do. They will most likely stay near their centroid and then flock to a car if it stops for a pit stop. |
| Explain how your characters relate to other characters in your world (1 point).  Race cars will avoid each other and chase the leader in order to beat him. Pit stop crews will flock to slow cars if they want to stop. Spectators will stay off the path and away from each other. |
| Explain how your characters relate to features of their environment (paths, walls, obstacles) (1 point).  Race cars will follow the path and avoid obstacles on the paths. Spectators will stay off the path. Pit stop crews will wait off of the track until a car comes to a stop. |
| List each (at least 2) of the advanced steering behaviors you will employ in your project (1 point).  1.Leader following  2.Traps and Boosts (some will slow cars, some will spin them out, some will add a speed boost) |
| For each behavior explain how you anticipate implementing that behavior (2 points).  1. All cars who are not the leader will seek the leader. If they get within a close enough range, they will try and pass it with a little extra speed.  2. Certain areas of the track will affect cars that pass over it. I will need to figure out how to add collision detection to these areas of the terrain. |
| Describe your avatar or other camera strategies to explore your world (1 point).  The camera will be able to be focused on different cars or over the entire track. |
| Make your point: tell us why your idea is cool! (2 points).  My idea will be unique in that each car will have a gas meter and will have to stop if the meter becomes empty. Also, it will be cool to code an autonomous race track. Cars will fight with one another to catch the leader and try and surpass him. Also, the spectators will add a cool feel to the track, and the pit crews will look awesome as they swarm stopped cars. |

***Comments :***