Liam Kolber & Eric Speaker CSCI 4229 Fall 2017

## Project Proposal

This project is intended to be a collaboration between Liam Kolber and Eric Speaker. We are hoping to combine the two ideas we have been developing throughout the duration of the course. This project will simulate a rough version of a quidditch game, from the harry potter series. The twist we plan on implementing is that the players and broomsticks will be represented by x-wings and tie-fighters (as opposite teams) from the Star Wars universe. The gameplay functionality itself will be relatively simple.

The non user controlled objects will generally be moving in predetermined random paths around the field to appear as if they are playing the game. The user will also have the option to enter a first-person/third-person view of any of the objects and control the chosen object manually. The manual controls will range from basic movement to actually grabbing/shooting the "quaffle" (ball).

As far the graphics go, we plan to make a highly detailed environment in which every object is "hand-made" within the code itself. This includes everything from the field, stands, the flying objects as well as any other environmental objects such as trees, hills, and a background image of the Hogwarts grounds to finish off the "illusion." Lighting and texture will be implemented -- and yes, we're prepared for lots of work in terms of figuring out proper normals for every single object.

We would plan to have the majority of the scene built and some of the finer details, like lighting and graphics, under way or beginning to be added by the progress report. The general plan would be for the scene to be finished, then any lighting, textures or backgrounds added, then all fields of view to be developed and finally the game mechanics would be built on top of that. By the project review the demonstration would be able to be completed and the user would be able to 'select' a representation of a player and shoot the object into the hoop.

## Stretch Goals

- 1. Fireworks whenever a goal is scored
- 2. Lighting that can be manually altered to represent different times of day
- 3. Sky details such as clouds or birds
- 4. Scoreboard and timer for the gameplay side of things
- 5. Add in a snitch that moves quick and randomly that when caught grants the user extra points