**Johnny Siu**

**IGME 202 Section 3**

**Final Project Documentation**

**Description of World:** I wanted to create a simulation of what happens at the RIT’s quarter mile. In my world, I have two flocking groups that will simulate what happens on the quarter mile, where they will either walk to class or walk home from class. One they reach their target, they will turn around and walk the other way. Scatter around the quarter mile are caution signs, which students need to avoid. Both students will stay on their side on the road, so that they can get to where they are going as fast as possible and will also not interact with each other.

**Steering Behaviors:**

**Flock implementation**: All of the students are my flockers, and they will all use the same steering forces

**Steering Behaviors:** seeking, arrival, cohesion, alignment, separation, obstacle avoidance, fleeing

**Advanced Steering Behavior 1:** Simple Path Following. This is an advanced steering behavior that will tell at what specific point my flockers should go to. Once the leader of the group is close enough to a waypoint, the group will seek the next point in the list that they are following. Since at RIT there are multiple colleges on campus and the fact that people might get hungry and want to go to Gracies, My algorithms differs from what Shiffman or Reyonds describes by having multiple lists to supply for the alternative routes the students might take

**Advanced Steering Behavior 2:** Queueing. This is an advanced steering behavior that will tell the flockers to line up in single file while they go searching for their next target. My implementation is a little different from Shiffman or Reyonds by having a trigger for them to start queuing up and for them to go back to just flocking. This trigger is a specific position that they will need to be, which is mostly a few yards away from the doors of a building

**Characters’ response to other characters:** The characters in one group will only interact with characters in the same group. Within this group, as they are walking to the academia side or to the dorm side, they will take care to give each other space, walk in the same direction, seek the same target and stay in one group. Once they reach the doors of one of the buildings, they will start to queue up, meaning that instead of seeking the same target, they will seek the behind position of the person in front of them, along with the other behaviors that I mentioned before

**Characters’ response to the environment:** The only real environment object that the flockers care about is the safety signs that are littered all over campus. They will walk around it to make sure they don’t walk into them. Everything else is ignore.

**Other notes:** The main camera can be shift using the key c, the waypoints can be toggled on and off using the key w.

**Resources:** All of my textures, models and assets were made by me.

Resources made by me:

Female and Male student

Obstacle(caution signs)

Booth College, Gleason College, Gosnell College, Dorms and Gracies

Dorms and college(placeholders)