Week 1
Goals: Create a unity scene for a single golf course with working physics between the ball and club. Start logging progress for the presentation. Stretch goals- start to build game controls for the single course and/or create multiple greens.

03/30/2020 Sunday 8:30pm-9:30pm
Created a new unity scene. Simple mini golf green with ground and golf ball. Rectangular green with no changes in elevation. Started to play with interaction between objects but am finding strange behavior. Will ask Gabe in class.
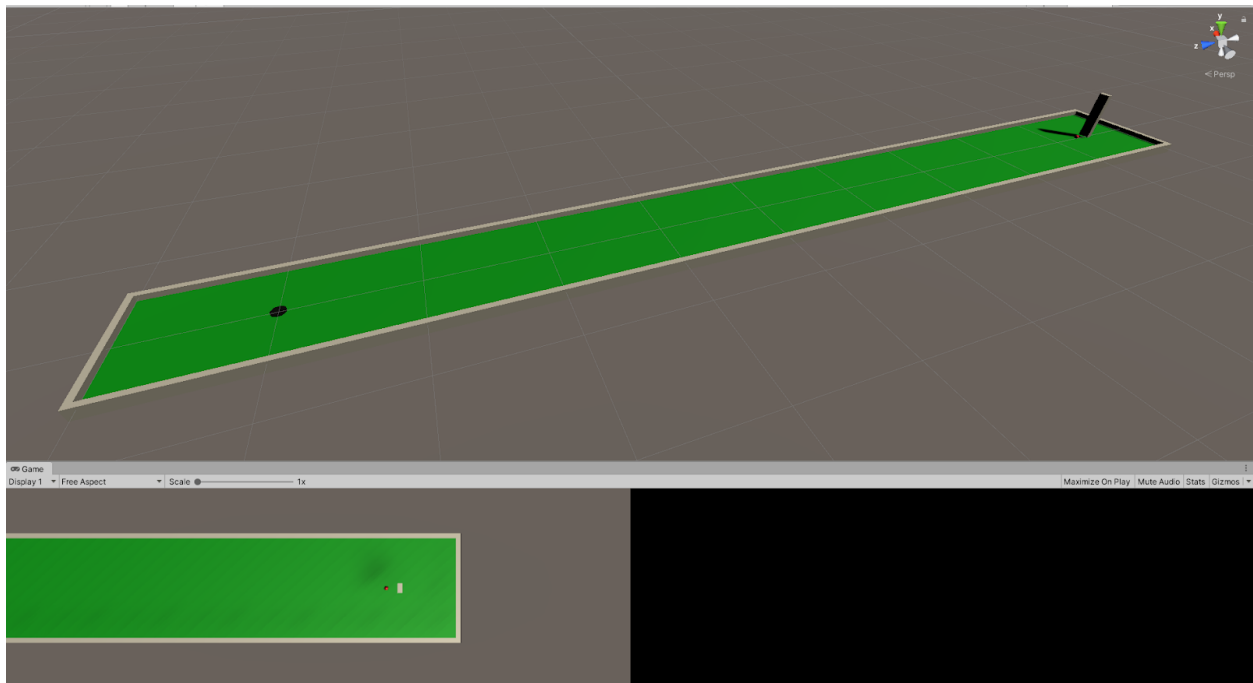

04/01/2020 Wednesday 11:45am-12:30pm
Gabe showed some of the unity settings that may be useful. Also showed his scene of the tennis ball and racket. Found this tutorial which shows VR baseball. Seems promising. Will look into this to see if it is work recreating.

04/03/2020 Friday 8:30pm-10pm
Created camera controller script so that the camera will follow above the golf ball at all times. Found good 3d models for the ball and putter. Low poly which is good for computation speed. Updated the time at which physics interactions take place by 10 times. Watched the baseball bat tutorial. Seems a bit more complex than what I need.

Baseball bats have multiple hitpoints of various velocities farther away from hand and the ball reacts differently to each. I only need one hitpoint (the end of the putter). Will keep searching for other tutorials, maybe the one prior by the same author if i can find it.
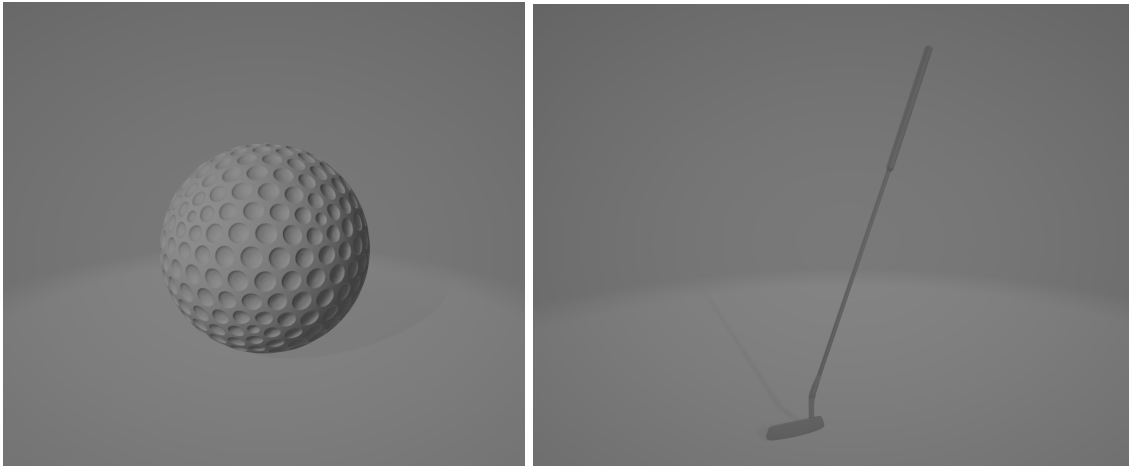
04/04/2020 Saturday 12:00pm-1:00pm

A unity scene for a single hole mini golf course is finished with to-scale models of a ball and putter. It was important to use realistic scale so that when the game is moved into virtual reality space, things feel natural. I looked for some more tutorials on ball and object interaction so that I can apply the appropriate physics between the ball and the putter. I have two youtube videos (2 hours each) that look promising so I am going to skim them before following along completely. A github will also need to be set up so that I can drop files in there.

Week 2
Goals: Create game functionality. Bind golf club to mouse and keyboard controls. Keep score of the game. Start menu? Log progress and start a powerpoint presentation with progress. Stretch goals- Multiplayer?

04/07/2020 Tuesday 9:00pm-10:00pm
> A github was created so I have a place to push my work that has timestamps. I skimmed through the two youtube videos and am going to follow along the second one. The physics is currently set so that the ball no longer clips through the putter when they interact but I need a better system now for how I move the putter instead of just moving it manually while in play mode. Added a hinge joint to make a swinging motion. I also created a powerpoint presentation and will start to put my progress in slide format.

04/09/2020 Thursday 6:00pm-9:00pm
> I'm not super happy with the ball and putter interaction but I am going to need to move forward or I wont finish. I started to add text to the screen but realized it is fixed in the world so that doesn't make sense with this game. I may need to just have the score pop up after a hole is scored instead. Will look more into static gui. Am unsure of the current size in relation to the headset. I remember when I wore the headset in my roll a ball game I was tiny compared to the objects.

04/10/2020 Friday 5:00pm-6:00pm
> Found a really nice tutorial for making the holes in unity. Came from someone who was making holes for a pinball game in unity. I may take a look into how they did some of the ball interactions in their game. Followed this tutorial to add to my test course.

Week 3

Goals: Finish up any functionality missing for a single hole game. Expand the game for multiple holes in the same scene. Expand the game for multiple players. Expand controls to allow VR support via VRTK. Work on presentation for class. Stretch goals- Have multiple people test the game for you to gain input.

04/12/2020 Sunday 3:00pm-7:00pm

> Created 3 courses to expand off the basic one hole course i have been testing on. Ideally I can just go from one green to the next after they get it in the hole. I used Blender to make the greens with walls and imported them into unity as a blend file. Really nice that it can go as a blend instead of an obj.

04/15/2020 Wednesday 3:00pm-9:00pm

> Created 6 more courses of varying difficulties. Now have a total of nine holes but I still need to write a script to jump from one to the next. Laid out all the courses in unity to make one big putt putt land. It might be nice to add a ground and some background scenery but that's low on my to do list.
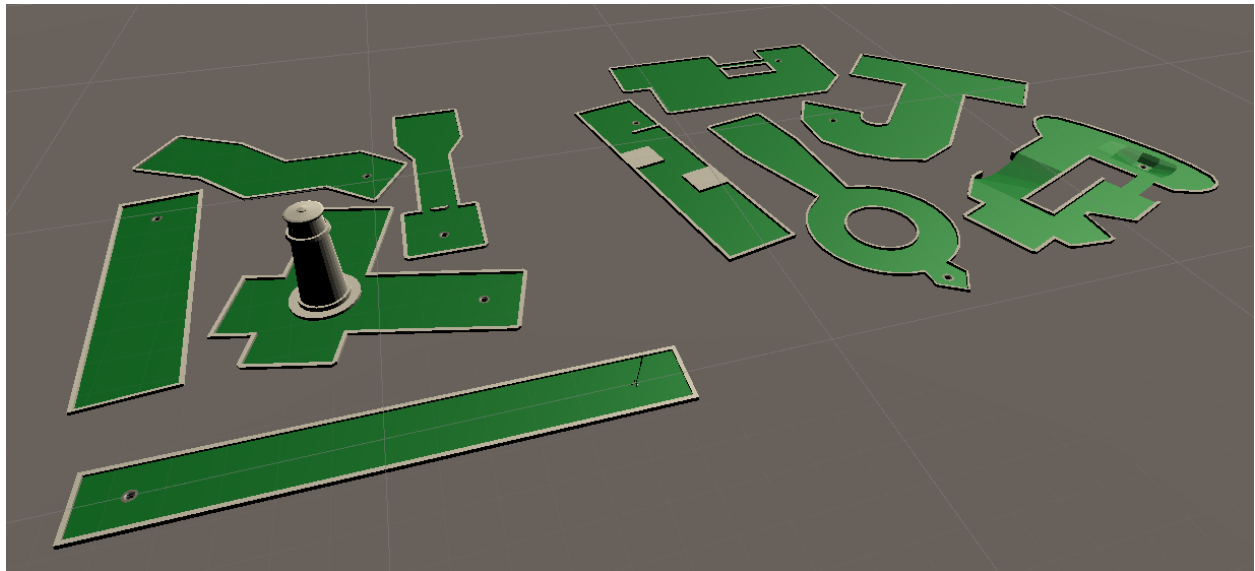
04/18/2020 Saturday 5:00pm-6:00pm

> Added VRTK like we did in class so that in the fall I can easily hook it up to a headset and test my game. I may have to add a script for picking up the club because I think it defaults to picking up the center of the item, not the hinge point.

Week 4

Goals: Wrap up game functionality. Add scripts to seamlessly move from one hole to the next. Continue VRTK so that we will already have some scripts for the fall. Test out the game several times to find flaws. Prepare a presentation!!!