Final Reflection on Balloon Swat

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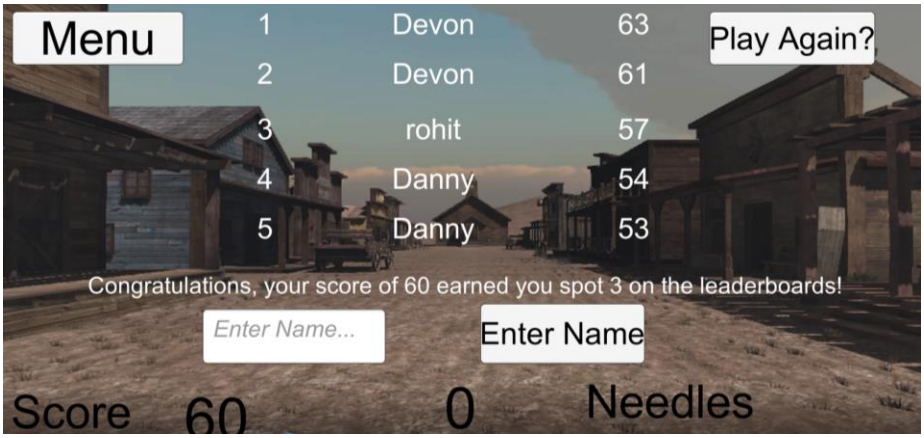
My final project, Balloon Swat is a game where players pop as many virtual balloons as possible within a limited time frame. Players use the Leap Motion controller and their hands to destroy the balloons in the virtual world of the game. When the user moves their hands in 3-dimensions, virtual hands are created in the game world that resemble their physical hands. In addition to this players have four needles that they use to pop balloons, each balloon popped costs a needle. To replenish needles players will need to remove their hands from the play area by taking their hands away from the Leap Motion Controller.

The main game as it appears when playing.

Once the time allotment has elapsed (60 seconds), balloons will no longer appear for the player to pop. If the player achieve a High Score – within the top 5 highest scores recorded for the game – they will have the opportunity to add their name to a Leaderboard, which persists between game sessions (even if the game is closed). This adds a sense of competitiveness and brings

players back to the game in an attempt to acquire a position on this leaderboard, or to beat their personal best.



The leaderboard that appears when a high score is achieved

The initial design of the game was to create something similar to the arcade shooter Time Crisis (Fielder, 1997), where players would aim at enemies that pop up on the screen and shoot them. The player would make a gun gesture with their hands to simulate the shooting of a gun. My initial reasoning is that it fit the western theme of prototype 2 and I already had some of the shooting assets (i.e. sounds and images) in the game.

My difficulties arose when trying to create the gun gesture with the hands and after many hours of experimenting was able to come with a reasonable means of doing so, with the help of some Leap Motion pages (Dods, 2013). However, the inconsistency and the desire to implement this with moving targets made it unfeasible and potentially not fun.

From this I pivoted the game idea to focus on destroying some sort of object with the virtual hands, and swatting balloons fit well. From here I shifted game design focus to more hectic gameplay where there was less of a focus on accuracy and skill and more of a focus on the player's reaction time, speed, and "ammo" (needles) management.

A player moves their hands around in an attempt to swat the balloons.

For the most part this project built onto the technical skills I recruited in creating the second prototype. This included interfacing with the Leap Motion controller and adding sound, image and modelling assets into Unity 3d (game engine used to create Balloon Swat).

I think the most valuable skill that was developed was my ability to adapt a project and pivot to meet my goals. This allowed me to create a new and fun game that fulfilled my desires for the final project.

If I had more time to work on a future project, I would like to get the gun gesture with the hands to work with the Leap Motion controller. To succeed in this I would need to make sure that the controls are polished and work consistently with the shooting.

Along with this I would like to ensure that other aspects of my project are more polished, which would require more time for testing. For example, I would like to have better detection of when the user's hands leave the game environment so that the replenish needles feature is more consistent.

Overall this was an enjoyable project for me that built on the skills I developed in the first two prototypes. With a little more polish, I think this project could be successful enough to put on the Leap Motion store.

References

Fielder, J. (1997, November 26). *Time Crisis Review*. Retrieved from http://www.gamespot.com/reviews/time-crisis-review/1900-2549791/

Dods, V. (2013, July 26). *Do You Feel Lucky?* Retrieved from http://blog.leapmotion.com/do-you-feel-lucky/