

EE/CprE/SE 491 WEEKLY REPORT 9

11/8 - 11/14

Group number: Team #37 - sdmay25-37

Project title: Non-Euclidean Game

Client: Josh Deaton

Advisor: Dr. Joseph Zambreno

Team Members/Role:

Tasman Grinnell Project Manager/Rendering Engine Engineer

Josh Deaton Rendering Engine Lead

Ben Johnson Rendering Engine Engineer

Cory Roth Rendering Engine & Game Design Engineer

Spencer Thiele Game Design Lead

Zach Rapoza Game Design Engineer

Lincoln Kness Game Design Engineer

- **Weekly Summary:** The Game Design team primarily continued prototyping, building off the prototypes from the past few weeks. Additionally, Spencer created tutorials to help with creating UIs and Coroutines. Lincoln began to look at world building concepts to assist with the general design and high level story lines and lore. The Engine team primarily focused on polishing and refining existing structures as well as working on the currently checked out issues (input management, sprite rendering). Josh made improvements on the Cmake build scripts and began working on the hyperbolic geometry with square meshes.

- **Past week accomplishments**
 - Tasman: Due to IDE issues, I was grappling with configurations for a lot of the week, but I was finally able to set up the other testing repository for tinkering with the JSON library. I've begun to implement the actual JSON parsing for the engine. I also started researching how collision detection is designed and implemented for many game engines.
 - Josh: Reorganized the project and CMake build tooling to accommodate different software tests of the engine. Started working on creating hyperbolic square mesh.
 - Ben: Improved our sprite rendering system. Started the implementation for asset loading.
 - Lincoln: I have been researching and working on how to start world building and creating a large world scene for the player to explore and implement needed biomes and NPC.
 - Cory: Got git to work with unity and started game design documentation. Implemented lighting into code
 - Zach: Implemented Equipment Category and Affects
 - Spencer: Research UI and Coroutine Tutorials and placed in learning resources. Worked on fixing bugs in the trap and getting functionality complete for offscreen trapping.

- **Pending issues**
 - Tasman: After beginning implementation, I found an issue with some of the storage that we've done for the key bindings. Storing the enums as strings might not be the best idea, so I need to figure out an alternative.
 - Josh: I have struggled getting the mesh to be properly created. The hyperbolic shape is correct, but I do not have a square mesh.
 - Ben: Nothing significant, currently stuck on architectural design for asset loader
 - Lincoln: Need to make sure to smoothly implement 2D Light objects to replace current "light" objects that have been placeholders
 - Cory: Trying to get other gits to work
 - Zach: N/A
 - Spencer: N/A

- **Individual contributions:**

<i>Name</i>	<i>Hours This Week</i>	<i>Total Cumulative Hours</i>
Tasman	7	54
Josh	8	53
Ben	6	57
Lincoln	6	59
Cory	6	60
Zach	8	54.5
Spencer	6	60

○ **Plans for the upcoming week**

- Tasman: Finish the input management classes, continue looking into collision detection for future implementation. For the input management classes, I would like to continue testing and verifying that my code is written correctly.
- Josh: Continue working on hyperbolic mesh. Maybe integrate some different camera views of the 3D hyperbola.
- Ben: Finish asset loader and help Josh with hyperbolic rendering demo
- Lincoln: Start building up the main farm scene, in this scene I need to implement boundaries and add in the NPC that will be placed near the entrance of the forest. This NPC will need to be talked to before allowing the player to transfer scenes to the rest of the world. In the open world this will be more art focused on making the 2D terrain and creating areas for enemies to spawn.
- Cory: Write game document and test unity git and lighting mechanics with monster
- Zach: Look into and get started on a start/main menu
- Spencer: Finishing offscreen trap functionality and the enemy trap handler. Working on NPC pop-up and text reading.