

EE/CprE/SE 491 WEEKLY REPORT 7

Oct 25 - Oct 31

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 Rendering Engine team began to distribute and work on tasks useful for abstracting out portions of the engine (e.g. Sprite Rendering and Input Classes). Since the game engine repository was created with a basic shell on what will be important for the final engine, the engine team can understand requirements and possible useful abstractions to clean up the main code. The Game Design team continued to work on prototypes, prepping some for advisor demonstrations. Prototyping includes working on key features and consolidating scenes to operate as a whole.

- **Past week accomplishments**

- Tasman: I began to research Input Class designs along with other necessary components for the game engine. Began implementation of a higher level input manager mapping contexts to different sets of keybindings. Sketched out example JSON file that can be used to load key bindings on boot up. I also found a JSON parsing and writing library that can be used to simplify (and probably more efficiently) load configurations into the engine. I also created another repo for some simple testing.
- Josh: Look at Ben’s demonstration and the code base he has created. Started integrating the Eigen library into the project. Worked on integrating Eigen with shaders
- Ben: Created a baseline for rendering individual sprites. Put together a demo of the current state of the rendering engine to show our advisor.
- Lincoln: Working on combining all the current unity files into one Main scene. The main goal is to refine all of them so that it works.
- Cory: Worked on creating the initial design scene and first 10 minutes of gameplay. Looked at the baseline code base Ben created.
- Zach: Got inventory adding and hiding working along with manual item spawning
- Spencer: Did a small rework on farming art and functionality resulting in better visuals and functionality. Started trying to combine all prototypes, but ended up transferring that task to Lincoln.

- **Pending issues**

- Tasman: No issues, just need to keep working on the Input Classes.
- Josh: No issues, just need to put in more time
- Ben: I don’t understand how hyperbolic space works. :(
- Lincoln: Debugging and adding more features to the enemy code
- Cory: No issues
- Zach: N/A
- Spencer: Need to get unsick preferably soon

- **Individual contributions:**

<u>Name</u>	<u>Hours This Week</u>	<u>Total Cumulative Hours</u>
Tasman	7	43

Josh	5	39
Ben	8	47
Lincoln	6	44
Cory	6	45
Zach	8	41
Spencer	6	46

○ **Plans for the upcoming week**

- Tasman: I just need to continue working on the InputManager classes and potentially consider creating a JSON parsing class or method. Adding this functionality depends on if we're going to use JSON files at all in other use cases.
- Josh: Continue integrating Eigen library and try to perform a projection operation
- Ben: Find a way to represent hyperbolic space in our engine.
- Lincoln: Continue to work through combining all the unity prototypes into one scene. Once this is completed work on possible new mechanics
- Cory: Continue to work on developing the story for the game and Make progress on tasks for the rendering engine.
- Zach: Get removal from the inventory working, add equipment and equipment display/effects, potentially look into lights
- Spencer: Implement a trap prototype with placement, trapping, and emptying functionality.