

## Alpha Complete Report



*In our alpha release we implemented a system for modular level loading that now allows for the use of JSON files to load in levels. There were also many new tweaks that improved overall aesthetic of the game. Some new functions include smooth animations for character movements and a combination of audio visual feedback. These helped the game seem less jerky and improved the player's immersion. We also adjusted the health system based on player feedback so that levels became more forgiving when players did not move on a beat. Another major aesthetic improvement was the inclusion of new art assets that provided animations to the characters in the game.*

### Activity Breakdown

#### Charles Tark

He was responsible for the implementation of the revised health system as well as the incorporation of visual and audio feedback to reflect current player performance. In doing this, he created visual and audio assets to be used as temporary placeholders. Furthermore, he implemented spritesheet-based animation for the knight and enemies.

Specifically, he was involved with the following activities:

- Implementing spritesheet-based animation for the characters (4 hours)
- Implementing visual and audio feedback for success and failure actions (5 hours)
- Creating assets for visual and audio feedback (1 hour)
- Assisting debugging of level editor (2 hours)
- Recreating health mechanics (3 hours)
- Meeting with the group (10 hours)

Overall, he worked about 25 hours. In general, the activities listed were a necessary and productive use of time. In general, he spent time performing the originally planned tasks with the addition of helping to debug and implement the level editor. Ensuring that the level editor was functional and free of any large bugs proved to be more time consuming than originally planned.

#### Gagik Hakobyan

He was responsible for implementing smooth movement of characters between Tiles. He also spent a majority of his time trying to correct the bugs in RhythmController. He tried a lot of different techniques for keeping RhythmController in sync with the music, but was not able to prevent it from desyncing completely. The breakdown of hours spent is as follows:

- Implementing smooth motion of characters (2 hours)
- Meeting with group to discuss documents and game features (10 hours)
- Working on rhythm controller (10 hours)

Overall, he spent a total of 22 hours on the game. Unfortunately, a majority of the time spent was not productive in terms of fixing rhythm controller, since nothing seemed to fix the



desyncing problem. However, he did learn a lot about timing schemes in games, which should help fix things by beta.

Austin Liu

He was responsible for researching and modifying a freely available level editor for use with the game, as well as implementing additional model classes and composing new music for the game. He also looked into libraries which may be relevant in improving the user feedback:

- Modifying Projectile and ProjectilePool classes from game labs, modifying CollisionController to handle Projectiles (3 hours)
- Researching and modifying the freely available level editor ([git repository at https://github.com/MaTachi/2D-Map-Editor](https://github.com/MaTachi/2D-Map-Editor)) (8 hours)
- Composing music for the game and looking into the JFugue library for MIDI output within the JVM (4 hours)
- Meeting with group members (10 hours)

In total, he spent about 20 hours on the game over the last two weeks. This was largely in line with the plan to spend roughly 6 hours on music and 3 hours on augmenting the collision handling module. However, the level editor took more time than expected due to lack of experience with the Java Swing library and he had to spend about half of the time allocated for programming on it. Most of this was a productive use of time, though the Projectiles have yet to be tested due to other priorities, so implementing the Projectiles should have been deferred until the RhythmController was more robust.

Kylar Henderson

She was responsible for building the level editor and creating a JSON parser within the game so that it could load levels from existing JSON levels. The breakdown of her time is as follows:

- Reading JSON tutorials and researching pre-existing Java JSON parser libraries (3 hours)
- Implementing the JSON parser within the game (5 hours)
- Modifying a pre-existing level editor found online to export proper JSON files (4 hours)
- Meeting with team members (10 hours)

In total, she spent about 22 hours working on these tasks. All of this time was productive as it helped develop the tools that were required for the alpha release. Most of the estimates from the last report were accurate. The only notable overestimate was the time to be spent on the level editor GUI. Since the team was able to find a pre-existing level editor GUI, this drastically reduced the amount of work that needed to be done.

### Andrew Halpern

He was responsible for designing the alpha level game prototype. He also worked on creating storyboards that showcased different types of levels and worked on redesigning heads up display assets. Specifically, he was involved in:

- Designing the gameplay level for presentation (1 hour)
- Creating assets for the level editor's GUI (1 hour)
- Brainstorming and meeting with the rest of team to discuss new forms of visual feedback and reviewing feedback from gameplay testing and presentation (10 hours)
- Refining the game's background and splash screen (2 hours)
- Redesigning the rhythm ticker's icons for moving, dashing, and projectiles (4 hours)
- Creating assets for the knight's health meter (1 hours)

In total he spent 19 hours working on these gameplay assets and working together with the rest of the team. This week's biggest challenge was figuring out the design for the rhythm ticker that maximized players' awareness of the beat. Creating levels was also difficult because the level editor was not completely finished, but in the future it will be a lot easier to make gameplay levels for testing.

### Julia Cole

She was responsible for creating and updating the assets for the game and directing other members contributing assets. She was involved in:

- Updating design of characters (6 hours)
- Adding additional character sprites for turning (10 hours)
- Creating idle and damage animations (45 minutes)
- Discussing design goals with team over chat (30 minutes)
- Meeting with teammates (10 hours)

In total, she spent around 27 hours working on the above tasks. Reworking the characters to a pixel design was time consuming but valuable. This choice will allow for designs and animations that better fit the electronic feel of the dance floor environment. The workload for the next two weeks is expected to stay about the same with the production of the instruction manual, concept art, and additional sprite animations.

## **Milestone Predictions**

For the beta complete milestone, we plan to finish debugging our already existing code and to create a system for transitioning between different levels.

### **Test for Acceptance**

Rhythm based code should be fully functional. This would mean we fix all currently existing bugs and are able to take in different key combinations that correspond to different actions that the player character will take.

We will also add a number of assets to the game to improve the overall aesthetics. This includes new sprites, animations, and music.

### **Risk Assessment**

There will likely need to be a large amount of time put into debugging the current rhythm controller. This task is expected to take more time than anything else, but when it is completed the game will gain a lot of functionality (specifically, additional actions and no more loss of synchronization between the audio being played and the beat tracking code).

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### **Activity Breakdown**

#### Charles Tark

Over the next two weeks, Charles will be responsible for the implementation of win/loss states, the refining and balancing of health mechanics, and other necessary animation including collisions and ticker feedback. Additionally, he will be responsible for the creation of required visual assets as well as editing music tracks and sound effects.

His rough time breakdown will be as follows:

- Implementing the revised health system (2 - 3 hours)
- Implementing the win/loss states and related input (2 - 3 hours)
- Implementing necessary animation including collisions and ticker feedback (4 - 5 hours)
- Editing music tracks (2 - 3 hours)
- Producing of any other needed visual assets (2 - 4 hours)
- Meeting with team members - (8 - 10 hours)

The anticipated total time spent is roughly 20 - **28 hours.**

#### Gagik Hakobyan

Over the next two weeks, Gagik will be responsible for finally fixing rhythm controller. With this complete, he will be able to fully implement the other actions we have planned. The activity breakdown is as follows:

- Fixing rhythm controller (6 - 10 hours)
- Implementing dash, fireball, freeze (4 - 5 hours)
- Assigning programming tasks (1 hour)
- Team meetings (8 - 10 hours)

The anticipated total time spent is roughly 21 - 24 hours.

# ***Rhythm Knights***

## **Alpha Complete Report 3**



### Austin Liu

Over the next two weeks, Austin will be responsible for helping Gagik with improving the quality of the audio visual feedback of the game. His rough time breakdown will be as follows:

- Composing music (8 hours)
- Fixing rhythm controller with Gagik (4 hours)
- Fixing level editor (4 hours)
- Meeting with the group (10 hours)

The anticipated total time spent is 26 hours.

### Kylar Henderson

Over the next two weeks, Kylar will be responsible for adding the necessary structure for level transitions and selection. Her rough breakdown will be as follows:

- Adding a level selection menu (3 hours)
- Adding an autoplay feature where completing a level will automatically start the next one (4 hours)
- Meeting with team members (10 hours)

The anticipated total time spent is 17 hours.

### Andrew Halpern

Over the next two weeks Andrew will be responsible for creating the levels for the beta presentation. He will also be working with Julia to create the gameplay manual. He will also work on designing the game's menu to allow players to choose different levels. Andrew will also work to create and redesign assets to increase visual feedback for the player

His rough time breakdown will be as follows:

- Designing easy, medium, and hard gameplay levels (2 hours)
- Designing the layout for the gameplay manual with Julia (5 hours)
- Refining gameplay assets to increase visual feedback for players (3 hours)
- Brainstorming and meeting with the rest of the team (10 hours)

The anticipated total time spent is 20 hours.

### Julia Cole

Over the next two weeks, Julia will be responsible for directing the production of assets. She will continue to refine character design, implement animation for all characters and tweak existing assets. In addition, she will work on the instruction guide with Andrew. Her rough time breakdown will be as follows:

- Attacking animation for knight (3 hours)
- Additional animations for enemies (6 hours)
- Assist in UX design with Andrew and the team (1 hours)
- Instruction guide assets and design with andrew (5 hours)
- Team meetings (10 hours)

The anticipated total time spent is 25 hours.