

# Rhythm Knights

## Milestone Document

Team *wat*

Kylar Henderson, Charles Tark, Gagik Hakobyan, Julia Cole, Andrew Halpern, Austin Liu

### Milestone 1: Gameplay Prototype

#### Due Mar 2

Our gameplay prototype will be a top-down grid-based puzzler. The player will be required to complete an objective by moving to the beat. However, no music will be present. The goal of the prototype is to test whether movement on a rhythm is viable in the style of puzzler that we are considering.

#### Deliverables

- Test movement on rhythm (player and enemy)
- Test tile-based movement
- Reach goal: rhythm controller prototype
- Sprites for the character, enemies, ticker and board

#### Tests for Acceptance

- Game doesn't crash after being playtested by entire team
- Enemies and player are in sync (move at the same time)

#### Risk Assessment

- Movement is relatively simple to implement and should be working
- Coordinating the rhythm and the movement of the enemies might be challenging.

#### Contributors

- Austin, Gagik, Charles, Kylar, and Andrew will be responsible for their own modules
- Julia will be responsible for producing character, enemy, ticker, and board sprites

## Milestone 2: Technical Prototype

### Due Mar 16

A more thorough test of the music-based elements of the game. Specifically, we will be putting in music for the early levels.

### Deliverables

- Music support
- At least be able to design the layout of a level
- Rhythm controller complete
- Character design for player character complete
- Character design for enemies and bosses complete

### Tests for Acceptance

- 5 different users are able to construct a level
- Rhythm controller doesn't desync noticeably

### Risk Assessment

- Music will be tricky to synchronize properly
- Level design and movement should be relatively straightforward

### Contributors

- Austin, Gagik, Charles, Kylar, and Andrew will be responsible for their own modules
- Julia and Andrew will be responsible for producing assets for backgrounds, and tiles

## Milestone 3: Alpha Release

### Due Apr 6

The game should have its early levels complete. All game features should be implemented by the time of this release, though some features such as rhythm synchronization may be only implemented at a basic level

### Deliverables

- Level editor/XML level parser
- Significant amount of music complete (at least 1 possible track for each early level)
- Menu navigation layout complete
- Working sprites for characters and enemies complete

### Tests for Acceptance

- Julia and Andrew must be able to use level editor to design the map of a level, and place enemies.
- The music will be limited to something Austin has composed or arranged.

### Risk Assessment

- Level editor will be the most difficult part of this release
- The level editor likely will not be able to handle polyrhythms yet due to the complexity of the implementation.

### Contributors

- Austin, Gagik, Charles, Kylar, and Andrew will be responsible for their own modules
- Julia and Andrew will be responsible for producing visual assets
- Austin will finish up the music for each level, with input from group members on rhythm/melodic decisions

## Milestone 4: Beta Release

### Due Apr 20

At this stage, the game should have all of its features implemented, though it may be rough around the edges due to minor bugs. It should be fully playable for at least 10 minutes worth of levels by this point.

### Deliverables

- All music for levels complete, further changes are only to augment existing tracks with sound effects/minor rhythmic changes
- Polyrrhythm support should be working
- Rhythm-synchronized background animation
- Creation of all gameplay levels ready for user testing
- Polished sprites for all characters complete
- Sprites for effects and particles complete
- Sprites for environment complete
- Fully functional user interface and menus complete

### Tests for Acceptance

- Level editors should be working fully, including possibilities for polyrrhythm boosts
- All game mechanics should be tested on multiple level designs

### Risk Assessment

- Polyrrhythm detection and coordination will be the most tricky part

### Contributors

- Austin, Gagik, Charles and Kylar will be responsible for their own modules
- Austin will be responsible for composing and arranging the music for the programmers to work with.
- Julia and Andrew will be responsible for producing visual assets

## **Milestone 5: Final Release**

### **Due May 4**

A complete implementation, if slightly unpolished, version of our game, with full support for complex pieces of music.

### **Deliverables**

- All reported bugs removed
- Complete and polished visual assets
- Completed 5 songs divided into about 25 tracks for each world that is linked by a theme

### **Tests for Acceptance**

- At least 10 people play our game without any programming bugs up to the final level.
- Polyrythms now tested and working properly

### **Risk Assessment**

- Extensive playtesting will be done to ensure that the final game is bug free

### **Contributors**

- Austin, Gagik, Charles, Kylar, and Andrew will be responsible for their own modules
- All group members will provide input on design elements
- Julia and Andrew will be responsible for producing visual assets