

# Premise

Ripples is a rhythmic arena dueler where players are martial arts masters fighting on water to the beat of music. Players jump automatically to the beat of music, and generate a damaging ripple when landing on the water's surface.

## Core Mechanics

### Movement:

Players move using simple non-relative directional controls.

### Ripples:

- **Rhythm**  
Each player jumps into the air in time with the beat of background music, and upon landing, generates an expanding ripple that travels across the surface of the water.
- **Offense**  
The edges of these ripples are lethal to those other than their originator.
- **Defense**  
When a player is in the air, they cannot be hit by a ripple.
- **Strength**  
Ripples from different characters come in different strengths: ripples expand a certain distance from their centers, then dissipate. This distance is the strength of the ripple.
- **Special**  
Each character has their own signature special ability, which changes how their ripples interact with other ripples and the environment.

### Scoring:

The player accumulates points by executing certain actions throughout their play cycle. These points are tallied at the end of the session and displayed as grades between A and F.

- **Economy of Movement**  
The player accumulates points for not moving.
- **Successfully Attacking Opponent**  
The player accumulates points for tagging an opponent with their ripple.
- **Survival**  
The player accumulates points for not being tagged by an opponent's ripple over the course of a song.
- **Other Attributes**  
There exist other miscellaneous awards that the player may gain through executing other actions, such as jumping over a large number of ripples in a single jump. These are worth additional points.

## Audio

The audio of Ripples is a large component of player feedback. As music has control over when jumps occur, the game is one of rhythm.

- **Music**  
Each player's jumping patterns are tied to the beat of the background music, meaning that the music drives the player's offensive and defensive maneuvers.
- **Sound Effects**  
Each character has their own slightly different suite of sounds to denote their various actions (jumping, landing, special abilities).

## Characters

Players may choose between a variety of playable characters, all with their own special abilities. Each character differs in several ways:

- Ripple shape
- Movement properties
- Passive properties
- Ripple generation/jump rate
- Active ability

Characters in the game are based off of Greek letters that have mathematical significance, and their abilities correspond to their letter. For example, Delta stands for change over time in a variety of disciplines, and their ability allows them to manually grow and shrink a ripple.

The player is able to play as Pi initially. Players can unlock more characters by defeating them in Story Mode.

### Pi - $\pi$

- Ripple shape: Circle
- Movement properties: Average
- Passive properties: None
- Ripple generation/jump rate: Normal
- Active ability: None

### Abilities

- **Airdash**  
Character can dash in a direction while in the air, maintaining altitude while dashing, before falling back to the water.
  - **Control Implementation**  
Player dashes a short distance in the direction they specify with the movement controls when they press the active button.
- **Teleportation**  
Character can teleport to the edge of one of their ripples.

- **Control Implementation**  
Holding down the active button “selects” the last ripple the player created. An indicator appears on the ripple, corresponding to the player’s movement direction, if the player has one. Releasing the active button teleports the player to the position of the indicator. Teleportation is canceled should the player have no movement direction when releasing the active button.
- **Detonation**  
Character can cause AOE explosions at the intersection points of their ripples. These explosions kill instantly, and destroy the ripples that they are spawned from.
  - **Control Implementation**  
Pressing the active button detonates all the intersections onscreen.
- **Pound**  
Character can fast-drop onto the water, instantly creating a ripple of fixed diameter with an extremely thick border. They then stay on the surface of the water until the next beat.
  - **Control Implementation**  
Pressing the active button while in the air initiates the pound.
- **Split**  
Character can split one of their existing ripples into several smaller ripples that continue to expand.
  - **Control Implementation**  
Holding the active button while in the air will make the next ripple generated a split ripple. Releasing the button will split the ripple.
- **Delta**  
Character can create a ripple whose size can be actively changed.
  - **Control Implementation**  
Holding the active button while in the air will make the next ripple generated a delta ripple. Continuing to hold down the button grows the ripple, and releasing the button shrinks the ripple. The ripple will be destroyed when it becomes too small or too large, whereupon the ability to create another delta ripple will be given to the player.

## Enemies

The type of enemies players face depend on which game mode they are progressing through (see also: Game Modes). The Story Mode contains only bosses, whereas the Endless Mode contains weaker enemies.

Enemies have two main properties of movement: movement relation to the player, and choreographed movement. Both of these movements can be performed in or out of sync with the musical beat, and this dictates the enemy pattern that players will face.

## Environments

Players confront enemies and each other in a variety of environments, each with their own hazards and special features.

- **Flowing Water**

Rivers and other moving bodies of water will displace ripples in the direction they flow (instead of having their centers be unmoving, ripples will move steadily in a direction as they expand).

## Narrative

- **World**

Ripples takes place on a cube-shaped planet separated into three “layers”.

- **Surface**

A habitable space with diverse biomes, much like Earth. The main difference is in its bodies of water, all of which are fed by enormous streams of water originating high in the planet's atmosphere. The Squarefolk inhabit this layer, and they are a sturdy people, happy and content with their fulfilled lives.

- **Underground**

Below the Surface is a planet-wide network of caves and tunnels, worn by millennia of powerful water erosion. The bodies of water on the Surface drain directly into underground pools and vents. All light comes filtered through the Surface pools, meaning the Underground is not completely unlit, though it is extremely dark. The Trianglefolk inhabit this layer, and their heritage is belligerent and hungry for conquest, causing the entire race to be constantly engaged in territorial warfare.

- **Core**

The pools of the Underground run directly into the core of the planet, which is an enormous sphere of water. The Circlefolk inhabit the core, and they possess an intrinsic connection with the world's waterways.

- **Civilizations**

- **Squarefolk**

Squarefolk live exclusively on the surface of the planet, where they have built a prosperous society after driving the warlike Trianglefolk underground. Squarefolk are naive and curious about the world beneath, but most confine themselves to peaceful lives aboveground.

- **Trianglefolk**

Trianglefolk were driven beneath the Surface by the Squarefolk, and the elder Trianglefolk harbour intense resentment towards the surface dwellers. Younger Trianglefolk have no such prejudices, and are keen to explore the planet, but they are met with hostility from the Squarefolk regardless.

- **Circlefolk**

The Circlefolk possess the secrets to the planet's water, and an adult Circlefolk's life is devoted to the maintenance of planetary stability from within the Core.

- **Rite of Passage**

A young Circlefolk must undergo a rite of passage before they are considered adults, and this involves a journey to the world above, their ultimate goal being to visit the origin of a sky-waterfall.

- **Characters**

- **Pi**

A newly of-age Circle, Pi must venture to the surface to find the source of a waterfall, the ancestral coming-of-age journey for the Circles.

- **Delta**

A Circle wandering the overworld, unsure of its position in life after repeated failures to reach the apex of a waterfall.

## Game Modes

Ripples includes several different game modes, some of which may be played co-operatively:

- **Story Mode**

A staged challenge mode where the player duels increasingly difficult enemies one by one to advance the narrative of the game. Each stage has its own auditory profile, scripted elements, and a boss with more unique abilities than generic enemies.

(See also: Encounters)

- **Endless Mode**

Players can use their own music files to generate wave-based enemy encounters.

Endless refers to replayability, not length of gameplay session.

- **Versus Mode**

A multiplayer duel that pits two players against each other in a chosen arena. Players can choose different characters that they've unlocked in Story Mode to play as.

## Encounters

The encounters with “bosses” in the Story Mode are structured as musical pieces, with several different sections that take the place of traditional boss “phases”.

- **Main Beat**

The tempo of the encounter. This mainly dictates how quickly the boss generates ripples.

- **Intro**

The boss introduces their main beat pattern, along with their favored movement pattern.

- **Exposition**

The boss introduces their special active.

- **Development**

The boss complicates their beat and movement pattern.

- **Bridge**  
The boss uses their abilities in a less aggressive and more exploratory manner, and is generally stationary.
- **Recapitulation**  
The boss uses a more complex and powerful variant of their special active.
- **Coda**  
The boss' final pattern, uses a yet unseen mode of their special.

#### **Delta Encounter:**

- **Intro**  
Beat Acclimation: Boss follows a simple patrol path while jumping to the main beat of the music.
- **Exposition**  
Boss seeks the player, and makes more aggressive jumps.
- **Development**  
Boss uses their special, emitting a single ripple that can grow and shrink at will. Boss uses the ripple to control parts of the arena while patrolling to the main beat.
- **Bridge**  
A cooldown period involving just a lone special ripple that pulses to the music.
- **Recapitulation**  
Off-beats: Boss uses their special aggressively, and seeks the player while jumping to additional off-beats.
- **Coda**  
Boss slows pace and expands special ripple offscreen.