Line ´Em Up

Game Design Document

Game Overview

Hook

Line 'Em Up is a top-down shooter where the best way to eliminate your enemies isn't to shoot them - it's to launch yourself to your teammate and crush any enemies in the way.

Game Concept

In Line 'Em Up, an empty health bar doesn't mean death. Instead, you always have a chance to get back up after being shot down. The only way to make sure your enemies stay dead is to zip yourself to your teammate- slamming into any players that get caught in your path. This means that you must be very aware where everyone on the field is positioned - you need to spread out from your teammate and get behind the enemy to get kills.

Genre

Genre - Top-down Arena shooter
Similar games - Nuclear Throne, Enter the gungeon, Tiny Tanks

Gameplay and Mechanics

Gameplay

Match Structure

Matches are 2.5 minutes long, and the team with the most kills at the end of the time limit wins. The match begins with both teams spawning in (see respawn section) with a score of 0 and control disabled. After a 3-2-1 countoff, the match begins. When the timer runs out, the team with the highest score wins. If there is a tie, a draw is called.

Mechanics

Movement

The characters move from a top-down perspective. There is no turning delay to the movement (characters instantly turn to face control direction).

Exact movement values will be determined through playtesting, but the movement philosophy is as follows:

Characters have quick acceleration, but not instant velocity changes when control is applied. Ground friction/acceleration is set at a minimum value so that the characters still feel responsive but cannot easily dodge zip attacks through strafing alone. Movement speed is slightly slower than the standard rapid-fire shot. The direction that a character is facing has no effect on their speed.

Zip to Teammate

When the zip key is pressed, a thin beam is drawn between the player that pressed the button and their teammate. Over a .75 s delay, the beam will get thicker. At the end of this delay, a strong force is applied to the player each frame, launching them towards their teammate. An alternate movement system is applied, reducing their ground friction and overall control. They are still able to slightly affect their movement, but only in broad motions. This force is large enough that Terminal Velocity (see below) should be reached within 0.2 seconds.

If the zip key is released or they come into contact with their teammate, the beam is broken and the force is no longer applied. After 0.3 s, the movement mode is switched back to regular, responsive movement. This is to allow the player to bounce off of objects/their teammate, use their momentum to reposition themselves, and get more kills by staying at Terminal Velocity. After another 0.5 seconds, the player can activate zip again.

"Terminal Velocity"

When a player's velocity exceeds a certain threshold (which can only be done by using the Zip to Teammate move) they will reach "Terminal Velocity". In this state, any enemy that they come into contact with will be killed. There will be a clear visual indicator on the player that shows when they have reached Terminal Velocity. (See related: Wrecking Ball from *Overwatch*.).

Shooting and Health

Weapons cannot kill other players, but they can put them in a weakened state. The standard weapon is projectile-based, shoots at a rate of 5.5 shots/second, and does 20 damage. The base health of every character is 100. Shooting does not require a separate input, aiming the character automatically fires the weapon. Ammo count and clip size is infinite. Getting hit by a bullet applied a small knockback to characters.

Dodging

The default character is equipped with 1 dodge move on a 2.5s cooldown. This dodge can be thought of as a hybrid between *Enter the Gungeon*'s "dodge roll" and Tracer's "blink" from *Overwatch*. The move has no cast delay. The move takes 0.25 s to complete. The player will move a fixed distance in whichever direction they were already going.

"Weakened" State and Buddy System

When a player's health reaches zero, they become weakened. In this mode, movement speed is decreased by 50%, all abilities (including Zip) are disabled, and rate of fire is decreased <u>by</u> 25%. If the player does not find a health pack within 8 seconds, they will be killed.

Arena Objects

Around the arena will be a few small health packs and 1 large health pack. The small health packs restore 30 health, and the large health pack restores 100 health. All health packs respawn every 8 seconds.

Respawn

On initial spawn, both teams spawn on opposite sides of the area in 4 preset locations. When a player dies, they enter a "dead" state and wait for 4 seconds to respawn. Then, they are teleported to whichever spawn point is furthest from <u>any</u> other player and restored to the "alive" state.

Arenas

Main Arena
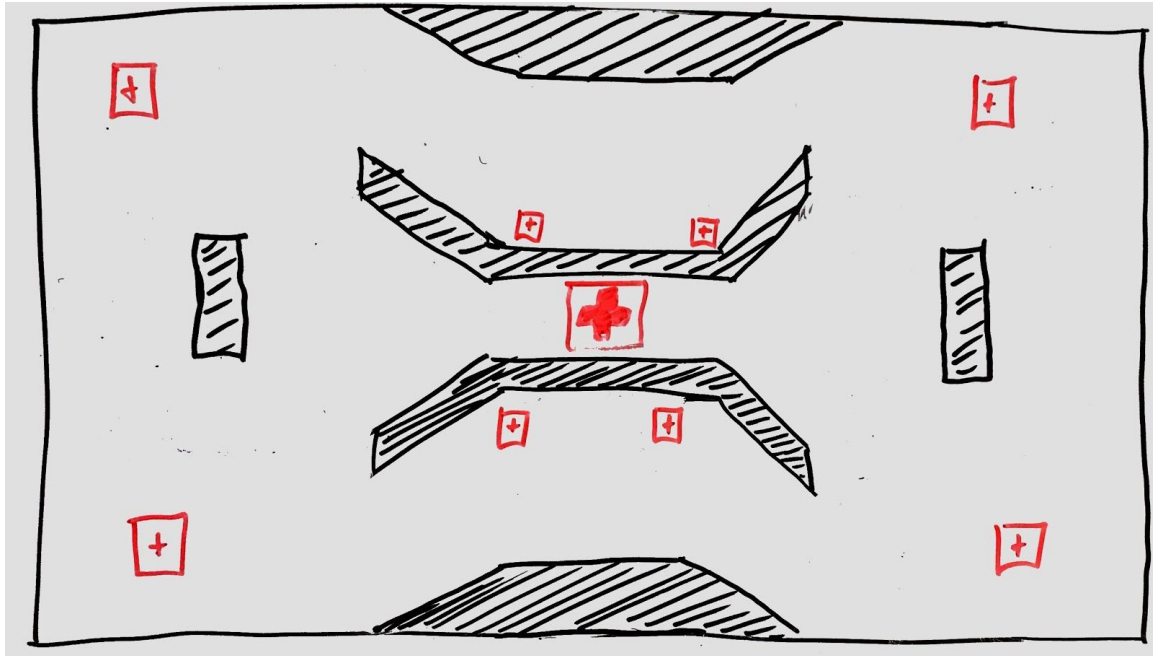
Description

(note, corner health packs have been removed). The default arena is designed to set players up to use the zip mechanic as much as possible. The big health pack is placed in a risky position- the map will funnel any zipping enemies straight over it. All of the health packs are located towards the center of the map, forcing weakened players to put themselves in danger of being zipped.

The small health packs are in a safer position than the large one, but the slopes of the walls make them an easy target for zipping if the enemy players position themselves diagonally across the map. In general, this map is designed to encourage players to separate from their teammate, hold a position on the opposite side of the map, and pull off a big zip kill when an enemy goes for a health pack.

Interface

Visual System

HUD
- Timer with score on either side - Top center screen
- Health bar above players
- Weakened counter below players, weakened text above

Menus
- Main Menu
  - Start Game
  - Quit to Desktop
- Pause Menu
  - Resume
  - Quit to Main Menu
  - Quit to Desktop

Camera
Top-down view, fixed orthogonal camera.

Controls

Gamepad
- Left stick - Move Character
- Right stick - Aim / Fire Weapon
- Bottom Face button - Zip to Teammate
- Either trigger - Dodge

Keyboard
- WASD - Move Character
- Arrow Keys - Aim / fire weapon
- Space - Zip to Teammate
- Left Shift - Use ability / Dodge

Technology

Target Platform
Windows x64

Development hardware and software
Reason Essentials, Piskel, Photoshop

Development procedures and standards
Collaboration Software: GitLab with Sourcetree git client

Game Engine
Unity

Scripting Language
C#

Appendix A: Asset Lists

Art

Sprite and Texture List
- Default Character - top view
- Bullet - Default
- Terminal Velocity Indicator
- Weakened Indicator
- Arena floor
- Arena obstacles
- Health pack
- Health bar

Animation List
- Fire
- Death
- Walking

Effects List
- Zip to teammate beam
- Terminal Velocity flair
- Bullet impact (map object) particle
- Bullet impact (character) particle

Interface Art List
- Start
- Quit to Desktop

- Quiet to Menu
- Title
- Press A to Join
- Scoreboard / Timer
- Pause
- Resume

Sound

Player Sounds

- Dodge
- Zip (charge up)
- Zip (impact)
- Hurt
- Heal
- Weakened
- Death

Weapon Sounds

- Primary fire

Interface Sounds

- Hover
- Confirm
- Start Game
- 3-2-1
- Score increase

Music

- Main Theme