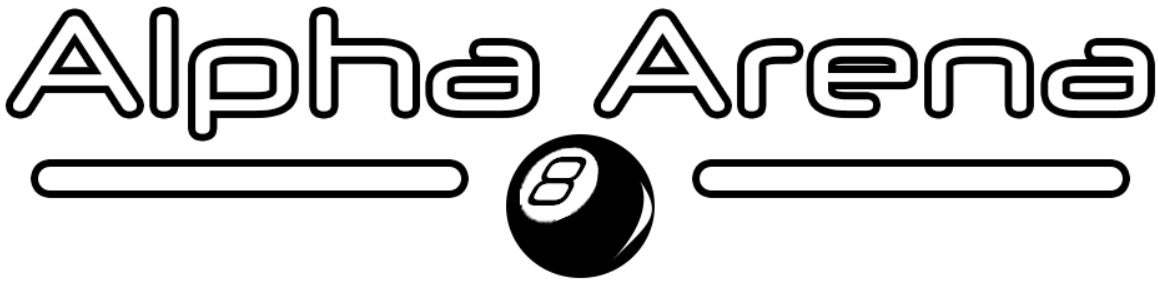
ALPHA ARENA (GDD)



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1 Game Overview

Title: ALPHA ARENA

Platform: PC Standalone

Genre: Arena FPS

Rating: (18+) ESRB

Target:

Challengers

FPS Players

Achievement Hunters

Release date: May 4, 2021

Publisher: Team 8 Ball

Description:

Alpha Arena is a multiplayer Arena FPS game where contestants are faced against each other in order to become the number one challenger in the arena. Challengers can pick up weapons such as pistols or rifles to use as tools to eliminate others in a deathmatch. At the same time challengers are able to receive buffs they can take back to the arena upon completion of quick training minigames such as an obstacle course and bird aim trainer.

2 High Concept

Upon creating a room, players can join the host to play Alpha Arena. The players in the room are given starting weapons, and can pick up new ones from weapon spawners. Players are also able to receive some buffs during gameplay by going to a buff machine and playing a mini game such as a boid aim trainer or obstacle course. The deathmatch has a time limit, and the person who kills the most opponents is the top player of the room.

3 Unique Selling Points

- Games within games! Alpha Arena gives a new take to the Arena FPS Genre.
- 2 Arenas! One Arena utilizes procedurally generated terrain.
- Multiplayer Network Capabilities. Utilizes the Photon Network utility to host and create games.

4 Platform Minimum Requirements

PC and MAC Stand Alone

OS: Windows 10, IOS

Processor: 2GHz Dual Core Processor

Memory: 8GB

Graphics: Direct X Compatible Card or other basic integrated graphics such as the Intel HD Integrated Graphics.

Disk Space: 150mb

5 Competitors / Similar Titles

· Apex Legends

· Quake

· Doom Eternal

6 Synopsis

You are a challenger of the Alpha Arena. Become the champion of the arena by using the weapons handed to you to defeat other foes! The only thing that you need to do is become the best!

7 Game Objectives

- There is a time limit of 5 minutes for each match.
- The person with the most kills is the winner of the room!
- Aim to be the top player within the time limit.
- Eliminate your opponents.

8 Game Rules

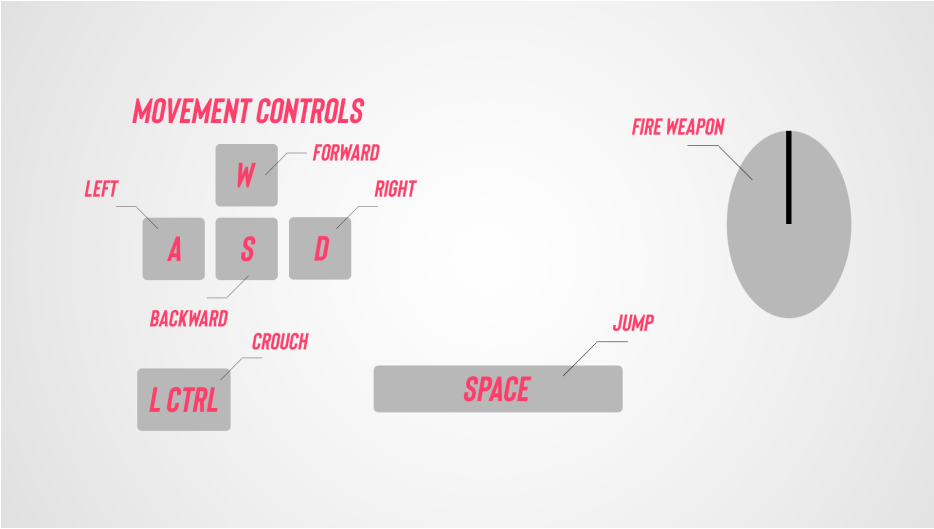
- There is a time limit of 5 minutes for each match.
- The person with the most kills is the winner of the room.
- 3rd Party Software may not be used.
- Cheating in any form is not allowed.

9 Game Structure

Game Lobby → Launcher/Multiplayer Menu → Join Room → Start Match → Arena Fight → Go back to Multiplayer Menu and repeat.

10 Game Play

10.1 Game Controls



10.2 Movement

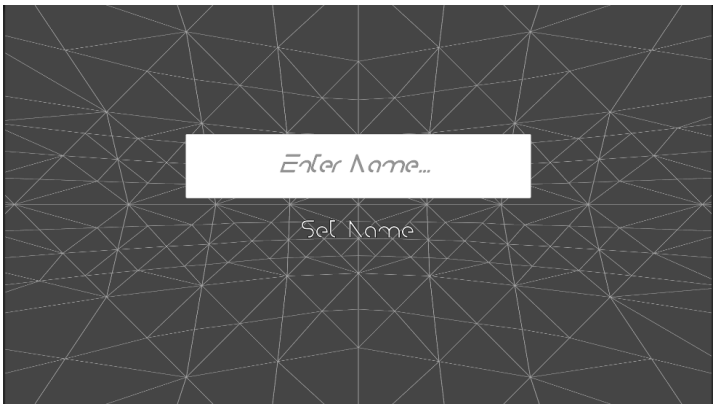
Alpha Arena movement system utilizes unity's character controller with scripting that takes inspiration from Quake's movement system. This means every player has a velocity direction, and they are able to bunny hop to gain momentum to move around the map.

10.3 Game Camera

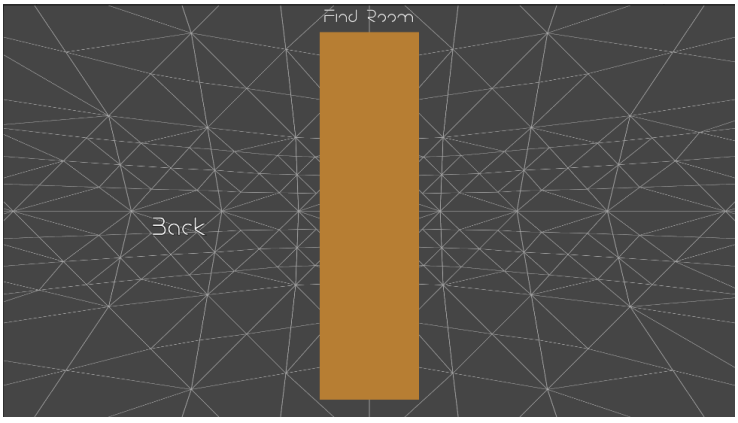
10.3.1 UI

Main Menu UI

Launcher UI


Enter Name...
Set Name

Find Room
Create Room
Back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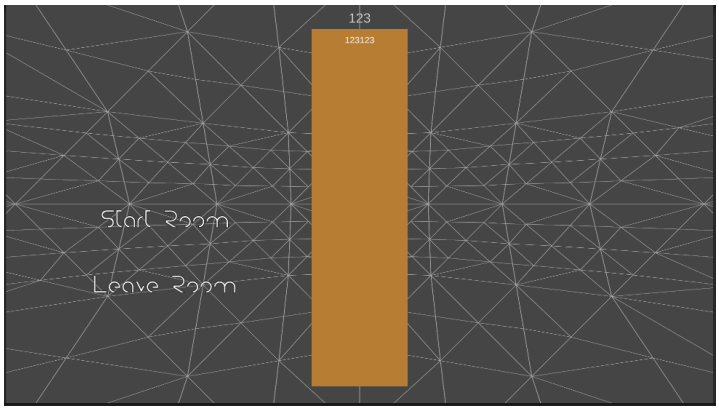
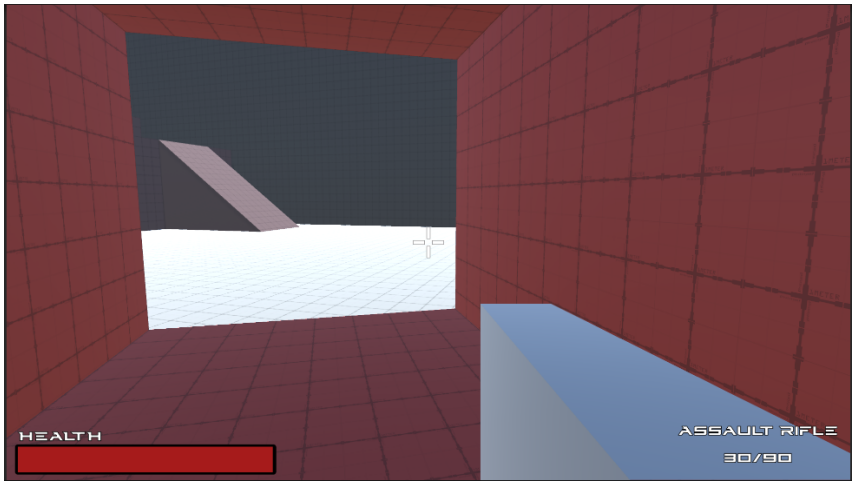


In-Game UI

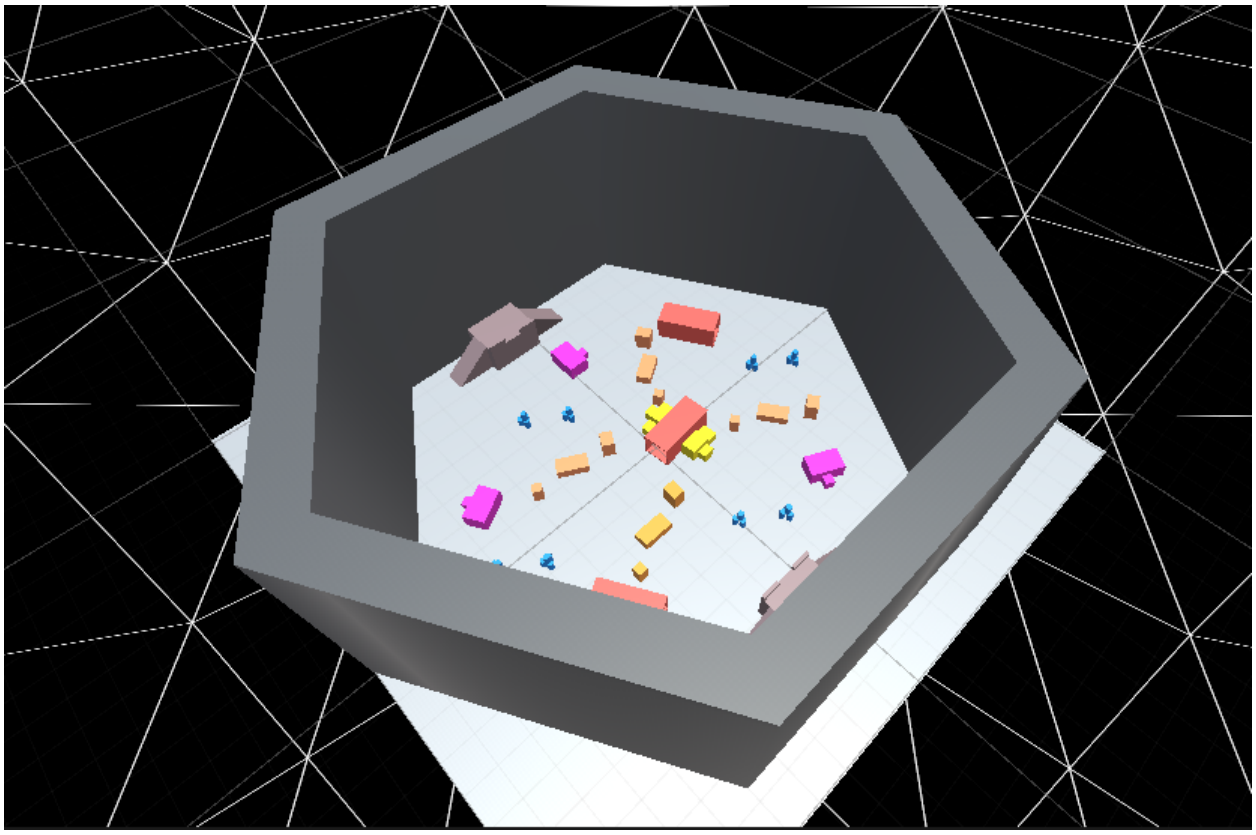


Pause Menu UI

Game Over UI

10.4 Maps

10.4.1 Map One



Map one is our basic implementation of an arena. This map is enclosed in an octagon to indicate to the player that they are bound to fight each other. The

10.4 Game Manager

The game manager is a singleton object within our game. This handles all gameplay features, such as player spawning, player management, score tracking, and network synchronization.

11 Players

11.1 Metrics

HEALTH: Health is the amount of life a player has. When a player's health reaches zero they turn into the death state.

11.2 States

Player Dead

Upon reaching zero health, the player will be in a dead state. In this state, there will be a delay for respawning and a death screen with the time left to respawn. With the spawning system, Spawners will

12 Networks

To handle all multiplayer related features and syncing, alpha one utilizes the free version of Photon Pun2 Networking.

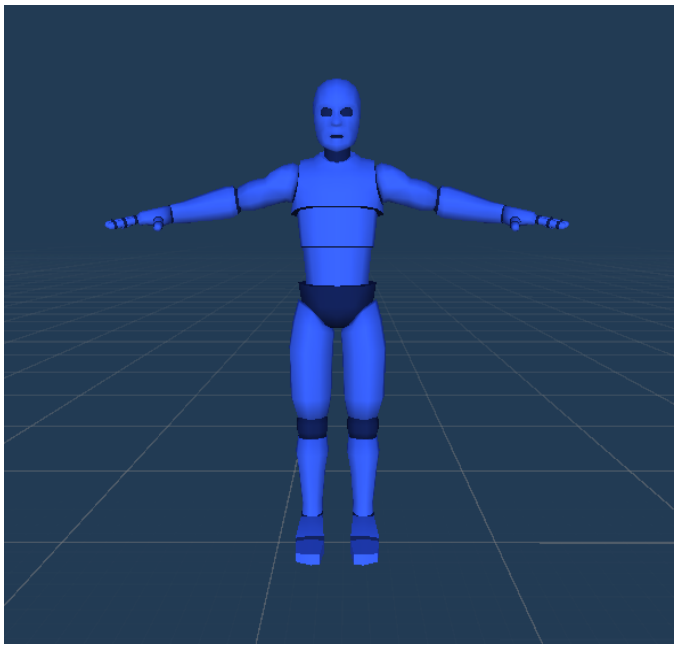
13 Art

13.1 Direction

Fonts and Logo Design

Models

Player Model



UI

13.2 Level Design

13.3 Audio

BGM

Name	Category	Description
Pistol_Fire	FX	Sound effect for firing the Pistol.
AR_Fire	FX	Sound effect for firing the Assault Rifle.

14 Procedurally Generated Content

14.1 Terrain

14.2 Minimum Viable Product (MVP)

- One Arena
- Multiplayer Capabilities
- Player, Movement, and Shooting Mechanics
- One minigame boid hunter

15 Wish List

- **More Maps:** Adding more maps will increase the replay value of the game.
- **More Weapons:** More weapons will promote different playstyles.
- **More Minigames:** Example: having to dodge projectiles. Having more minigames to master keeps the gameplay fresh.

16 Bibliography

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FPS_Movement_RigidBody	DaniDevy	https://github.com/DaniDevy/FPS_Movement_Rigidbody
3D Character Dummy	Kevin Iglesias	https://assetstore.unity.com/packages/3d/characters/humanoids/humans/3d-character-dummy-178395