

Bionic Kickball

Overview

Theme / Setting / Genre

The Elevator Pitch

Influences (Brief)

<Influence #1>

<Influence #2>

<Influence #3>

Core Gameplay Mechanics Brief

Targeted platform

What sets this project apart?

Player Interaction Patterns and Modes

<Player Interaction Pattern>

<How many players / how it works / etc.>

<Player Modes>

<Player Mode #1>

<Player Mode #2>

Objectives

<Primary Objective #1>

<Secondary Objective #1>

Procedures

Rules

Resources

Core Gameplay Mechanics (Detailed)

<Core Gameplay Mechanic #1>

<Core Gameplay Mechanic #2>

<Core Gameplay Mechanic #3>

<Core Gameplay Mechanic #4>

Story and Gameplay

Story (Brief)

Story (Detailed)

Gameplay (Brief)

Gameplay (Detailed)

Assets Needed

2D

3D

Sound

- Code

- Animation

Overview

Theme / Setting / Genre

- 2D Arena Action Game

The Elevator Pitch

Bionic Kickball is a 2D competitive arena action game where 2 to 4 players fight to the death. The only way that they can be killed is getting hit in the head with a ball that has been kicked by another player. It is a fast-paced game with a low skill floor and a high skill ceiling.

Influences (Brief)

- **Duck Game**
 - Games
 - Duck Game is one of the fastest pace and most ridiculous games I've seen recently. The speed of the rounds and the amount of tension that is built from the possibility of a quick death makes each round feel action-packed. Bionic Kickball will attempt to capture that same feeling of tension and action in a round-based structure.
- **Nidhogg**
 - Games
 - Nidhogg is minimalistic but there is a surprising amount of complexity in the gameplay mechanics which adds lasting value to the game. Like Duck Game, its instant-death mechanic adds significant amounts of tension.

Core Gameplay Mechanics (High-Level)

- Power-ups
- Kicking

- Upgrades

Targeted platform

- Windows/Mac

What sets this project apart?

- A kicking mechanic in a non-sports game is rare
- Bionic Kickball is tense, and fast-paced
- A fun party game to play with friends

Player Interaction Patterns and Modes

- **<Player Interaction Pattern>**
 - 2 - 4 players in a player vs. player environment. Each player is competing to kick the ball into other players and collecting power-ups first.
- **<Player Modes>**
 - Offline Arena
 - The arena is where most of the action will take place. It will be selected from a certain number of pre-made levels.
 - Offline arena allows for two players to play on the same computer, with different halves of the keyboard
 - Online Arena
 - Online arena would connect up to 4 computers to allow a 4 player game. The online arena does not differ in terms of game mechanics from the offline arena
 - Upgrade Screen
 - In between rounds, the upgrade screen will let players augment their player for the future rounds. The mode will be menu based with a few upgrade options
 - Soccer
 - Given a game with kicking mechanics already implemented, it'd be simple to implement a game mode that

Objectives

- **Win the Competition**
 - The game is won after winning a set number of rounds. The default number of rounds will be 5 but the players can decide how many rounds they would like to play.

- **Be the Last Man Standing in a Round**
 - To win a round, one must be the last character alive.
- **Get the Power-Up**
 - Power-ups will appear around the arena and will provide powerful modifiers. These power-ups will only be able to be obtained by knocking the ball into the power-up.

Procedures/Actions

The player's character moves using the typical WASD setup with the space bar used as jump. The K key can be used as a kick when on the ground and as a diving kick when in the air. The J key will activate any power-ups that require a trigger. Alternatively, a Xbox gamepad will be able to be used to play as well. The player will be able to move the character with the left stick and jump with A. Kicking and triggering a dive kick will be done by pressing X. The B button will activate any power-ups. To slide, the player can hold the down button while hitting the kick button. To control a shot, the player must chose an angle to kick at while the kicking a ball. There will be a narrow cone to allow more fine-tuned control over shots.

Rules

- If a character gets hit in the head with a ball, they die.
- A character can kick the ball with their legs/feet.
- After each round, a player can choose one upgrade for their character.
- Only one power-up per character can be active at a time.

Resources

There are two main resources in Bionic Kickball, lives and power-ups. A character only has one life per round so they must balance the risk of getting hit with the opportunity to hit another character. Power-ups are the second resource.

Objects/Entities

- Platforms/Level
- Power-ups
- Upgrades

- Characters
- Ball

Core Gameplay Mechanics (Detailed)

- **Kicking**

- The kicking mechanic will function like a standing kick when on the ground and like a divekick when in the air. It will be a fluid and fast motion so as not to interrupt the seamlessness and speed of the game. When a character dive kicks, they will pick up some speed so it will be a fast way of getting to the ball if needed. Two characters who collide with each other while diving will rebound slightly off of each other since space between characters is key in this game. Kicking while holding the down key will result in a slide. This slide will allow players to knock the ball up into the air. Any type of kicking will

- **Power-ups**

- Power-ups will add variety and added skill to the game. The goal of power-ups is not to give players an easy way of winning the round but instead give them interesting ways of interacting with the ball. For example, a helmet power-up will encourage more risky play as a player will be able to survive an extra hit. Random power-ups will appear at set locations in the arena but not so frequently that the game devolves into a race to get “the best” power-up to beat the other player.

- **Dividing Ball**

- In order to combat slow rounds, for every 30 seconds that the round lasts, the ball will divide into two. In other words, after 30 seconds, there will be two balls, after 1 minute, there will be four, and so on. This will ensure that rounds remain quick and exciting.

- **Upgrades**

- The last core gameplay mechanic in the game is the upgrade system. The goal of upgrades is to give more minor augments to gameplay mechanics to provide variety as the rounds progress. Some examples of upgrades may include being able to jump higher or move faster. Over time the upgrades will build to give players a unique gameplay experience that is under their control. Between rounds, a menu will pop up allowing players to select one upgrade from a set of 3 upgrades. There will be more than 3 types of upgrades, selection will be limited so as not to overwhelm the player.

Story and Gameplay

Story (Brief)

Your character is a cyborg, doomed to play Bionic Kickball over and over.

Story (Detailed)

In a futuristic and post-apocalyptic gladiator arena, the cyborgs have been captured and forced to play Bionic Kickball for the amusement of the humans who have survived the apocalypse. Every round, you are given a choice of augments to help you in the competition. How long can you survive?

Gameplay (Brief)

Each character competes using a series of jumps, kicks, and dives to defeat the other characters by hitting them in the head with a ball.

Gameplay (Detailed)

To begin the game, a player will select one of four characters. Up to 4 people can play this game. Once everyone has selected a character, the game loads into an arena and the first round begins. A ball appears somewhere in the level and each player attempts to move their character so that they can kick the ball into the opposing character's head. When the ball is in the air, the player can use the divekick to send a more downwards and targeted ball. Alternatively, to send the ball up into the air, a player simple has to use a slide. Power-ups will appear in the arena and alter the existing mechanics to create interesting interactions but once a player picks up a power-up it is gone and other players will have to wait for another to appear. In each round, a player only has one life to spare so they must balance risk and reward to win the round.

Assets Needed

- **2D**
 - Menu
 - Power-ups
 - Upgrades
 - **Characters List**
 - Cyborg 1 - name pending

- Cyborg 2 - name pending
 - Cyborg 3 - name pending
 - Cyborg 4 - name pending
- **Environmental Art Lists**
 - Platforms
 - Thin Platforms
 - Thick Platforms
 - Ball Bumpers
 - Springboards
 - General background art
- **Animations**
 - Movement
 - Jump
 - Kick
 - Dive
 - Death
 - Ball bouncing
 - Ball splitting
- **Sound**
 - Sound List (Ambient)
 - Main menu music
 - Upgrade menu music
 - Arena background music (cheering, horns)
 - Sound List (Player)
 - Character Movement Sound List
 - Kick Sound
 - Divekick sound
 - Jumping sound
 - Running sound
 - Character Hit / Collision Sound list
 - Kick colliding with ball
 - Kick colliding with player
 - Player interacting with springboard
 - Ball hitting the wall.
 - Character on Injured / Death sound list
 - Character death sound
 - Power-ups List
 - Activate power-up
 - Collect power-up
 - Sounds for unique power-ups

Template based on work by: Benjamin Stanley and Alec Markarian