

Kickoff Return Game Design Document (GDD)



‘Could You Return a Kickoff for a Touchdown?’

- Group #7 (Jon Lee, Marcos Elias Cordova, Max Greiner, Anthony Norderhaug)

[The game playthrough can be found here](#)

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Game Development Team Members

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1 Game Overview

Title: **"Kickoff Return"**

Platform: **PC Standalone**

Genre: **Sports - Football**

Rating: **(10+) ESRB**

Target: **Casual gamer (aging from 12 - 30)**

Release date: **May 3, 2022**

Publisher: **Group #7**

Description: You control a football player that receives the ball from a kickoff. You must run past and swerve around your opponents to the endfield to win. The game features 10 levels with increasing difficulty through varying defense formations and faster enemy speeds.

2 High Concept / Genre

Kickoff Return is a football sports game that requires the user to score a touchdown. The game will start by the player receiving a kickoff. The goal of the game is to rush to the opponents' end zone to score a touchdown. The player has unique moves such as "sprint" and "juke" to evade their opponent. There will also be different levels in which the defense will have different formations and faster speeds. Kickoff Return also allows for character customization and level selection, to allow the player to finetune the game's experience towards their preferences.

3 Unique Selling Points

This game features...

- Tackle physics & enemy tracking to offer a realistic simulation for a football kickoff
- 10 increasingly difficult levels that challenge the player
- Player customization via name, uniform color
- Unique and immersive animations correlating to football

4 Platform Minimum Requirements

The game requires around 1 GB of storage. However, graphics are low resolution and any PC computer made past 2008 will make do. Low demanding game.

5 Competitors / Similar Titles

1. Return Man Linebacker
 - a. <http://returnman3game.com/return-man-linebacker-2.html>
2. EA's Madden Franchise
3. NFL 2K
4. Blitz: The League Franchise
5. Mutant League Football

6 Synopsis

You are a football player trying to return a kickoff to score the winning touchdown. You are challenged throughout the game by different opposing formations and combinations of speeds. In overcoming these obstacles, the player has certain movement capabilities their opponents don't.

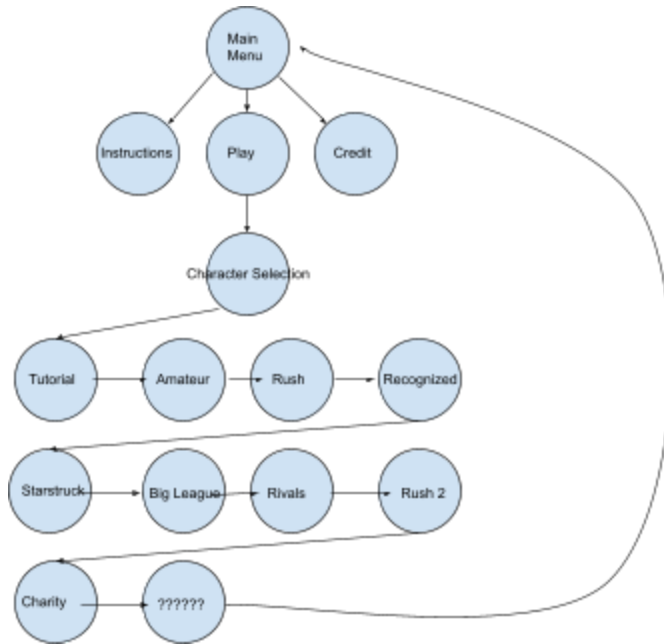
7 Game Objectives

The objective of this football game is to score a touchdown while avoiding the opponents defense. There shall be different levels of difficulty in which the opponents will be placed in increasingly difficult formations with more impressive stats.

8 Game Rules

1. The rules of the game are simply to not get tackled by the opponents defense.
2. You must stay within bounds of the football field.
3. You must cross the "endzone" in order to win the game

9 Game Structure



10 Game Play

10.1 Game Controls (Jon Lee, Anthony)

The user moves the player using WASD. The player can then spring while the sprint bar is active through shift. The character can also dodge left and right through Q/E.

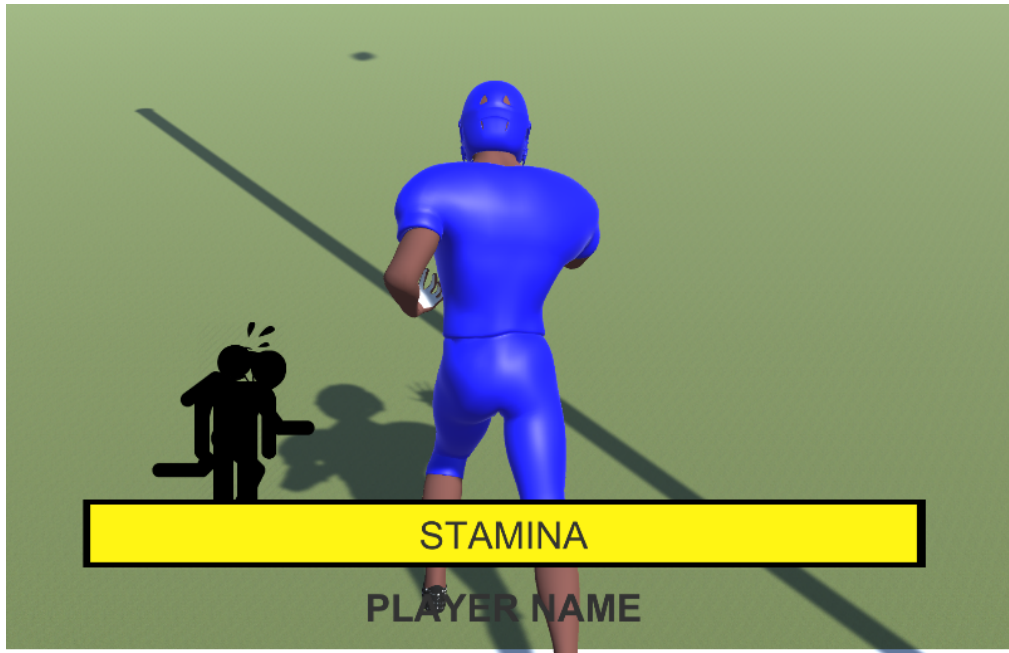
10.2 Game Camera (Jon Lee, Anthony)

The camera will automatically follow the player as they move around. Using right mouse click allows the player to move the camera to pan around. Running while moving the camera moves the player relative to the camera angle.

11 Players

11.1 Characters (Jon Lee, Anthony)

1. Player's Football Player
 - a. 1 movement multiplier
 - b. Cinemachine Freelook camera attached
 - c. Color adjustable jersey either Red, Green, or Blue



The football player with a blue jersey.

11.2 Moves (Jon Lee, Anthony)

Player Controls

1. WASD -> Allows movement of Forward, Left, Backwards, and Right
 - a. Affected by Freelook Camera's facing direction
2. Q/E -> Juke Right and Juke Right
 - a. Affected by Freelook Camera's facing direction
 - b. Applies force to Player's rigidbody that cannot be controlled during execution
3. SHIFT -> Sprint
 - a. Increases player's movement speed by 1.4 multiple
 - b. Is restricted by stamina bar
 - i. Player can sprint continuously for about 5 seconds
 - ii. Sprint needs to refill...
 1. Does so automatically
 2. Refills faster when standing still than when moving

11.3 Animations (Jon Lee, Max)

The player has different animations based on his movements.

- *Catch*, plays at start of every game instance to signal game is starting
- *Idle*, player is not recognizing any movement
- *Run*, player is moving without sprint enabled
- *Sprint*, player is moving with sprint enabled
- *Juke*, player has initiated a juke move

- *Celebration*, player has crosses the opponent's endzone

12 Player Line-up

Unfortunately, we have only implemented a single player. However, this player's outfit can differ.

13 NPC



Kid

Amateur

Star

Ghost

13.1 Enemies (Max, Marcos, Anthony)

2. Opposing Football Players
 - a. Kid
 - i. 0.8 movement multiplier
 1. Player can outrun without sprint
 - b. Amateur
 - i. 1.1 movement multiplier
 - ii. Slightly dulled turning speed
 1. Makes tackle recovery more difficult
 - c. Pro
 - i. 1.2 movement multiplier
 - ii. Average turning speed
 - d. Star
 - i. 1.3 movement multiplier
 - ii. Improved turning speed
 - e. HOF

- i. 1.3 movement multiplier
 - ii. Greatly improved movement speed
- f. Ghost
 - i. 1.3 movement multiplier
 - ii. Average turning speed
 - iii. Is "invisible" with mesh bring rendered as a transparent objects

NOTE**

All enemy movement speeds are assigned to the given multiplier, than randomized between a small interval to give some variance amongst enemies

- EX: 10 *Stars* with 1.3 movement multiplier with random interval of 0.15
 - Some enemies might have $1.3 + 0.15 = 1.45$ speed
 - Some enemies might have $1.3 - 0.15 = 1.15$ speed

13.1.1 Enemy States

Each enemy has 3 different state:

1. The enemy is chasing the player but has not attempted a dive
 - a. Can control direction
2. The enemy is chasing the player and has attempted a dive
 - a. Can't control direction
3. The enemy has alert radius enabled, and is waiting for player to enter zone
4. The enemy is going back and forth between 2 points.

14 Art (Marcos, Max)

- The football field was created by Max Greiner using textures and built in unity materials.
- The characters and enemies were free assets found online from Mixamo.com and SketchFab
- The background PNGs for the different scenes were made with Adobe Creative Cloud Express by Marcos Elias.
 - Certain images relating to the NFL such as players Brian Dawkins and Ezekiel Elliot were used off NFL.com's articles

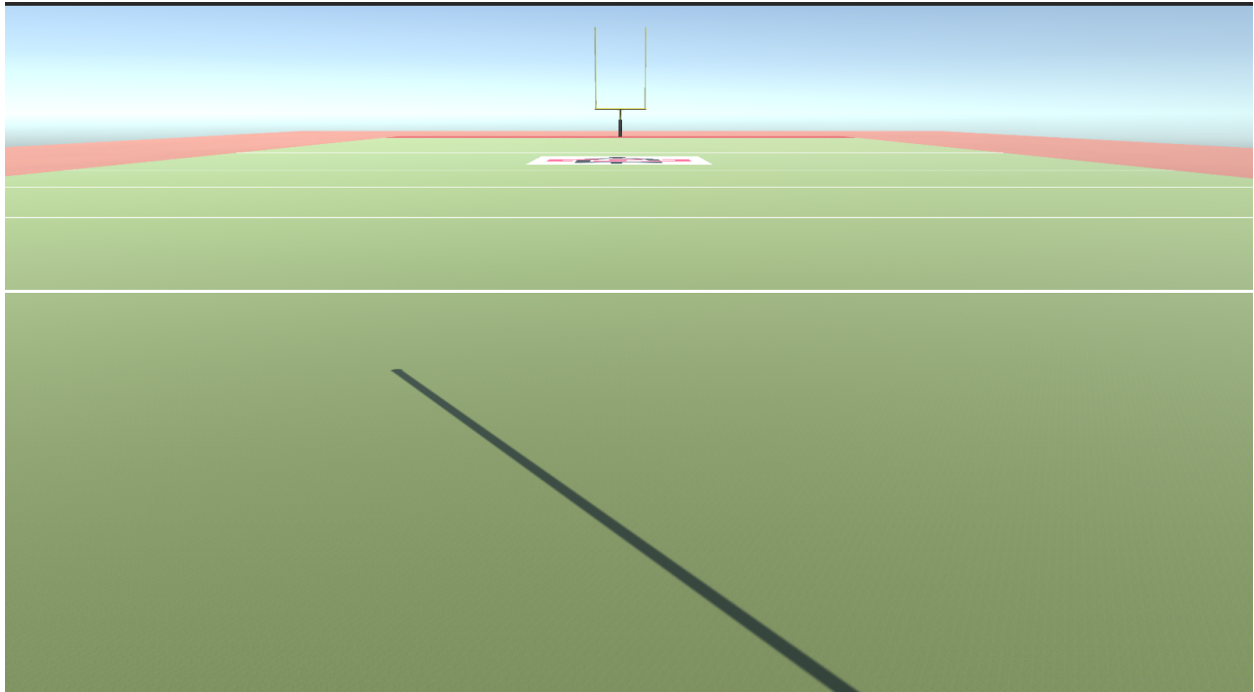
14.1 Setting (Jon, Marcos)

- The game is set on a football field with the SDSU Logo on top of it
 - The logo does not denote the game's actual setting, we just wanted to shoutout the school
- The football field has two end zones to mark where the player should head towards
 - The field also contains lines every 10 yards to denote the player's distance

- Also allows player to track their progression over numerous tries
- Despite the game taking place during a football match, we were unable to implement an actual football stadium. This is something we'd like to deliver on future updates and/or releases.

14.2 Level Design (Max, Anthony, Jon)

The level is based off the SDSU stadium. There are 10 different levels that are made up from different formations. These include a single file line of players, a conical shape, players moving around the back, 5 fast enemies that sprint at the player, etc.



Screenshot of the player field.

14.3 Audio (Max, Anthony, Marcos)

- Menus
 - NFL Primetime Theme Music at *Main Menu*
 - Football Practice Ambience during *Character Selection*
 - Halo Theme Song during *Credits* and *How to Play*
- Gameplay
 - SFX for immersion
 - Referee whistle, Ball being kicked, Ball being caught, Footsteps
 - Heavy grunt SFX to indicate enemy tackle
 - Crowd cheering to indicate a touchdown has been scored

The audio was taken from online free assets that are listed in the bibliography of this GDD. The most interesting audio sounds heard are getting tackled, scoring a touchdown, losing and crowd cheering.

The audio manager uses Singleton pattern to keep audio consistent throughout the scenes.

15 Procedurally Generated Content

- Unfortunately our game does not offer any procedurally generated content.

16 Wish List

1. More mechanics to give the player decision making opportunities
 - a. Breaking tackles from enemy
 - b. Juking in fashions separate from left or right
 - i. Maybe a spin move? Stutter step?
 - ii. These new jukes would be implemented with a separate, rechargeable bar similar to Sprint
 1. To discourage their spamming
2. More creative levels taking advantage of enemy's *alert radius* and *point A to B* functionalities
3. More detailed environment
 - a. A football stadium model
 - b. Models to represent fans
 - c. NPC football players waiting on sidelines
4. Improved kickoff cutscene
 - a. Maybe include a clip of the commentators
5. "Gamechanger" mode
 - a. Include a power-up where the player can initiate a predetermined cutscene that evades their opponent
 - b. Similar to "Gamebreaker" moments in NBA Jam

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