

# Football GDD

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## **Premise**

That Football Game is a flash-based title which uses very basic rules placed within the basic structure of the American game of football.

## **Core Functionality**

Each player selects a play. There are 10 plays, numbered 1 to 10. The difference between the play numbers determines the yardage that the offense gains or loses in a given play. Each player has a limited number of each play (there are two of each play, or a randomly scattered number equaling 4 total between both players).

## **Goal**

Each player's goal is to score points. Players score points in one of 3 ways: a Touchdown, a Field Goal, or a Safety. The player with the most points will win the game.

## **Scoring**

Scoring for this game is based directly on the scoring possibilities in an actual game of American Football.

### **Touchdowns**

To score a touchdown, a player must be on offense and move the line of scrimmage beyond their goal line. A touchdown equals 6 points in favor of the offensive player.

### **PAT**

The PAT (Point After Try) is an automatic 1-point addition to the scoring player's touchdown. A PAT can ONLY be scored after a touchdown.

### **Conversion Attempt**

The Conversion Attempt allows a player to attempt to score 2 points after a touchdown. This is a simulated play from the 2-yard line for the scoring player, meaning that the difference in cards must be greater than 2 to be successful. A Conversion Attempt can ONLY be scored after a touchdown.

## Field Goal

A Field Goal is a 3-point addition for the offensive player. It can be attempted from any part of the field at any time a player is on offense. If made, the Player gets 3 points. If missed, the Player turns the ball over.

## Safety

A Safety can only be scored by the defensive team. A safety occurs when the offensive team is pushed back behind their opponent's goal line (See SACK).

In the event of a safety, the following occurs: The defensive team gets 2 points. The Defensive team gets the ball at their own 20 yard line.

## Rules

### Player Hands

At the onset of the game, 20 cards are randomly dealt to each player. The values of the cards are from 1 through 10, and each number is represented four times each. The Players are labeled as A and B, where A is the Human Player and B is the AI.

Following the rule outlined in the Basic Play section, each Player's hand decreases until there are no cards to play, then the deck is shuffled and cards re-dealt. This is performed 4 times throughout the course of the game, after which the game is declared over, and the player with the highest point total is declared the winner.

If both players have the same point total, the game is declared a tie.

### Basic Play

Each Player selects one card to play. Both cards are compared in accordance with the rules below, and the player on offense must advance towards the end zone, with the defensive player attempting to stop this advancement.

### Ball Advancement

The basic rule of ball advancement is as follows:

*if*  $ytg \geq 20$

*then*

$$2 * |A - B| = y$$

*else*

$$|A - B| = y$$

Where:

A=Value of Player A's Card

B=Value of Player B's Card

y=Yards Gained by Offense

ytg= Yards from current line of scrimmage to Offensive team's goal line.

### **Special Circumstances**

$$\text{if } A = B, \text{ then } y = -7$$

### **Downs**

The Current Offensive Player, beyond having the goal to score points, has a micro-goal of wanting to advance a total of 10 yards in 4 plays. If, in four plays, the Current Offensive Player does not perform one of the following:

- Score
- Attempt a Field Goal
- Punt
- Attain a net of 10 yards from the initial line of scrimmage

The Current Offensive Player value must change.

### **Scoring**

#### **Touchdowns**

Scoring a touchdown works as follows:

$$\text{if } ytg < 0, COPS = COPS + 6$$

Where:

ytg = Yards from current line of scrimmage to Offensive team's goal line.

COPS = Current Offensive Player Score

#### **PAT and Conversion**

Immediately after a Touchdown, the Current Offensive Player must choose between a PAT or a Conversion Attempt. If a PAT is chosen, then:

$$COPS = COPS + 1$$

If a Conversion Attempt is selected, then the Current Offensive Player gets the ball at a ytg distance of 3. One play is run. After this play:

$$\text{if } ytg < 0, COPS = COPS + 2$$

If this condition isn't met, then no score takes place.

## Field Goals

A Field Goal can be attempted from anywhere on the field by the offensive team. To successfully score a field goal, each player plays a card. The success of a Field Goal is calculated by the following equation:

$$|A - B| * 10 \geq ytg$$

Where:

A = Player A's selected Card

B = Player B's selected Card

ytg = Yards from current line of scrimmage to Offensive team's goal line.

NOTE: If  $A - B = 0$ , then the FGA (Field Goal Attempt) is considered blocked, and the defensive team takes the offensive role with a bonus of 10 yards.

NOTE: If  $|A - B| < X$ , then the FGA is considered no good, and the defensive team takes the offensive role with no bonus.

## Safeties

A Safety is scored immediately after the following condition is met:

$$\begin{aligned} &\text{if } ytg > 100 \\ &\text{then} \\ &CDPS = CDPS + 2 \end{aligned}$$

Where:

ytg = Yards from current line of scrimmage to Offensive team's goal line.

CDPS = Current Defensive Player Score

To pass the goal line, the player must move across the field using the numbers 1 through 10.

Each player selects a number, the two numbers are compared, and the absolute value of the difference between the numbers equals the amount of yards gained by the offense.

This structure follows basic football rules in that each player must attain 10 yards within 4 plays to continue moving forward.

If, after 4 plays, the offensive has not attained 10 positive yards, the opposing player takes over the offensive role.

If the offensive player attains 10 positive yards within the 4-play constraint, the player earns a fresh set of 'Downs'. A Set of Downs represents the 4 plays the player gets to attain at least 10 positive yards.

The offensive player has three options on any given turn: Call a play, Kick a Field Goal, or Punt. Calling a Play requires selecting a card and putting it up against the card chosen by the defense. The difference is calculated and the Absolute Value returned tells the players how far the offense moves in a given play.

Kicking a field goal also requires the players to pick a card. The difference in this case equals the distance at which a field goal is considered to be 'good'. A successful Field Goal attempt equals 3 points for the player on offense.

Punting gives the defensive player the offensive role, but removed 50 yards from the previous line of scrimmage. The Line of Scrimmage is the area on the field where the offense is currently at.

## Assets

Field – This is basically the background graphic, the play area. It is a static art piece.

Ball – The ball is located at the current line of scrimmage.

Yard Marker – The yard marker is a set of graphics which dictates the location on the field which, when reached by the offensive player, will result in a 1<sup>st</sup> Down or New set of Downs.

Scoreboard – The scoreboard art could be part of the background image, but the score itself will need to update dynamically over the course of the game to display the following information:

- Both Team Names (Player Names)
- Team logos
- Each player's score
- "Time" Remaining in quarter.
- Which quarter of play it is
- Icon representing Offensive team

Offense Bars – The Offense bar is a block of color that designates how far an offensive drive got before it ended. Basically it's a programmatically stretched block which extends from the

beginning of a drive through until the end. NOTE: Different colors per player. NOTE: Different colors to designate loss of yards. NOTE: Breaks in graphic to designate different plays.

**NO HUDDLE CONCEPT FOR CARD GAME** – The player on offense can call a no-huddle play. Both players shuffle their discard piles and draw from there, neither one seeing what the result will be. The no-huddle can only be used by a player who is behind in score, and only if each player has discarded 10 cards minimum. It's used to extend a game to give the player a chance of coming back to win.