

# Project Plan

## Game Concept

The working concept of the game is to develop a turn based, deck building game based on the classic Rock, paper, scissors format. The game intends to fix the problem that often arises when playing rock, paper scissors of both players choosing the same primary input by implementing a five way secondary system which is fallen back on when the primary input is identical. This five way system works the same way as the the way primary system as there is a countering option to every possible input. The game will include a similar combat to that seen in turn based-games like pokemon, where there is an attacking player and a defending player. The attacking player is the player that wins the round of rock paper scissors and subsequently attacks the opposing player. The attacking player deals damage to the defending player which is shown as a depleting health bar. The game is over when one of the player's health points is fully depleted. Each player will be limited to the cards that they have in their hand. Each card will have a primary type of either rock, paper or scissors and a secondary type which is one of the following: fire, earth, water, dragon or ice. Each player will draw 4 cards from a deck consisting of 8 cards which is shuffled. The level of strategy in the game will be mitigated by the level of information available to the players regarding their opposition's hand similarly to that of other deck building games.

Each of the participating players will be assigned one of the secondary types which dictates the types of attacks that they are weak or strong to.

The game as a whole will consist of 3 levels which consist of a unique opponent with an increasing difficulty.

## Development Time

The development process will stretch over a total of 5 weeks going from the 18th of March to the 22nd of April, with weekly development update documents being provided every thursday. The total time spent on this development process is estimated to be around 46 hours spending varied amounts of time on the various design elements.

## Feature List

- A combat system consisted of calculating damage numbers each round. The data design will be built around a set of player statistic profiles that scale the damage dealt each turn. The combat will be a mixture of randomness and strategy as the players have limited access to the information in front of them.
- Communication design that intends to communicate to the player the aspects of the game through the design of the cards and other visual elements of the game. The game will attempt to communicate as much as possible to the player through the sprite design of the cards.
- A brief tutorial consisting of annotated screenshots of the game.
- A set of 3 unique levels where the player faces up against 3 unique opponents with their own play styles and decks. The levels intend to increase in difficulty as the player progresses.
- A deck building phase where players can select the cards which form their deck for the upcoming game.
- A type select phase which reminds the player of the primary and secondary type countering system and allows them to select the type which will be indicated underneath their health bar.

## **Milestones, Projected Time Allocation and Schedule**

### **Week 1 - Data Design and Gameplay Implementation**

- Implementing a working system where players can play cards and see the damage being dealt on the healthbars.
- Implement code to calculate damage numbers.
- Implement a system that effectively shuffles a deck of cards.
- Implement player statistic profiles.

Estimated time required: 12 hours

### **Week 2 - communication and assets**

- Implement and design the visual assets which include: Sprites for the cards which express the primary and secondary types, further sprites for the health bars.
- Implementation of the UI elements which include: the player type select interface, main menu and deck customization interface.
- Designing annotated screenshots for the tutorial section.

Estimated time required: 8 hours.

### **Week 3 - 4 Level design and pacing**

- Work on playtesting different opponents with different stat profiles.
- Balance different coefficients relevant in damage calculations.
- Design and implement opponents that are balanced through playtesting.

Estimated time required: 20 hours.

### **Week 5 - The Final Product**

- Further playtest and balance opponents
- Implement sounds and smaller UI elements to improve user experience.

Estimated time 6 hours

## **Dependencies**

The level at which the game is balanced and well tuned and designed is a product of how much time can be spent playtesting. The time allocated to this may be limited to availability of getting consistent external playtesters and should theoretically commence as soon as possible with as few restraints as possible.

## **Further Long Term Design**

Further iterations could potentially expand upon this as a player vs player experience as it is not married to the small and simplistic format that this project entails. Further development beyond the specified 5 weeks could expand this game to being more with the regards to narrative. The plan is to design and implement a system where the opponents a player faces up against are more than just basic artificial intelligence but perhaps characters in a world. Implementing a hub world between matches of *Rock, Paper, Scissors, Dragon, Ice* would be ideal to add more context and create a relative narrative experience.