**Dustworld**  
**Design Document**

Table of Contents

[Overworld 3](#_Toc141229352)

[Combat 4](#_Toc141229353)

[Initiating Combat 4](#_Toc141229354)

[Turns 4](#_Toc141229355)

[Ending Combat 4](#_Toc141229356)

[Phases 4](#_Toc141229357)

[Sides 5](#_Toc141229358)

[Parties 5](#_Toc141229359)

[Characters 6](#_Toc141229360)

[Colour 6](#_Toc141229361)

[Stats 6](#_Toc141229362)

[Abilities 6](#_Toc141229363)

[Actions 6](#_Toc141229364)

[Items 6](#_Toc141229365)

[Abilities 7](#_Toc141229366)

[Actions 7](#_Toc141229367)

[Cost 7](#_Toc141229368)

[Stats 7](#_Toc141229369)

# Overworld

Node-based (akin to FTL, Fire Emblem the Sacred Stones, Dicey Dungeons) with “scenes” as nodes on the graph, which would mostly just feature dialogue (Sacred Stones style portraits) and choices, shops, etc. I have no fucking clue how random / generic encounters will work.

# Combat

Combat is defined by three notable phases: first, the combat is initiated. Within combat, any number of turns may be played, either until one side is victorious or the combat ends in a draw. After this, combat ends.

## Initiating Combat

Combat is initiated from some outside state, such as when talking to a character in the world. This involves two sides: allies and enemies. Allies include the player’s party, as well as any NPC parties who may be involved with the player at that point. Enemies include parties who are hostile to the allied side, though whether they are hostile amongst themselves may vary.

## Turns

Once combat begins, both sides will pick actions. This is known as the *Selection Phase*. Once both sides have decided on their actions, they will be sorted into the *Order of Execution*. This sorting takes a variety of properties into account such as character speed, special abilities, any kind of persistent effect (i.e., buffs / de-buffs), move properties, and so on.

Then, these actions are executed in order. This is known as the *Execution Phase*. Executing an action may have any number of effects such as dealing damage, healing allies, or applying special effects.

The turn cycle will continue indefinitely until one side is defeated, or some other novel condition is met, causing combat to end.

## Ending Combat

From the player’s perspective, there are three possible outcomes to combat. The first is *Victory*, where the player defeats all enemies or achieves some novel condition. Second is *Defeat*, where the player’s party is defeated, or the enemy side are allowed to achieve some novel condition. Finally, a *Draw* is a situation where both parties are somehow defeated in the same turn, or some extremely novel condition is met. Functionally, a draw will be treated as a defeat in most cases.

## Phases

Combat is split into multiple phases, which play out in sequence.

* **Start of Combat:** The very beginning of combat.
* **Start of Turn:** The beginning of every turn.
* **Start of Selection:** Immediately before actions are selected.
* **Selection:** The phase in which actions are selected.
* **End of Selection:** Once all actions have been selected.
* **Start of Execution:** Immediately before actions are executed.
* **Execution:** The stage in which selected actions are executed, in order.
* **End of Execution:** Once all actions have been executed.
* **End of Turn:** The end of every turn, after all actions have been executed.
* **End of Combat:** The end of combat, once an outcome has been resolved.

## Sides

A side is a collection of parties. There is a maximum number of characters per-side, but they can be divided amongst multiple parties. The player’s side will include the player’s party, along with any allied NPCs that may be relevant to the combat (i.e., if a story beat involves a character accompanying the player, but not joining their party).

All parties on the enemy side will be hostile to the player’s side, but whether they are hostile to each other may vary. While typically enemy infighting won’t occur, a potential scenario could be that the player is ambushed by two rival groups, whereby all three parties will be fighting amongst each other within the combat. Regardless, the entire enemy side must typically be defeated to win the combat.

## Parties

A party is a group of up to four characters. Characters within a party will always be “on the same side” - they will never attack each other unprompted, unless some condition is applied via external means that states otherwise (such as a special action that triggers infighting).

One special party is that of the player. The player has a degree of customization of their party outside of combat, allowing them to control what available characters are in the party, along with their items, actions, and so on. Additionally, the player’s party have persistent characteristics outside of combat such as levelling up over time, as well as sustaining damage and certain status conditions.

## Characters

Characters are those who participate in combat. While their “character” in the sense of narrative importance, species, and personality (or lack thereof) may vary wildly, all characters function the same on a mechanical level.

### Colour

Each character has two primary colours of red, green, blue, black, and colourless. At the start of every turn, at the *Start of Selection* phase, they will gain one point corresponding to their colour, per colour. Colourless characters may not have any other colour, but to compensate they gain three colourless tokens a turn.

Primarily, these points are spent to use actions – characters may spend each other’s points, allowing them to tap into powerful moves that require some combination of colours to use. Characters may also *Hold* every turn, allowing them to reduce oncoming damage by 25% and hold their points into the next turn, allowing them to stack points up to a maximum of five.

### Stats

All characters have a “block” of stats (a *Stat-Block*). These stats are:

* **Max Health:** The cap of the character’s health. A Character’s health starts at this threshold and may not be healed over it.
* **Current Health:** The character’s current health, which depletes as they take damage. If this value hits zero, the character is defeated and may no longer participate in battle.
* **Bonus Health:** Empty by default, certain effects may allow a character’s health to exceed their max health. Characters take damage to bonus health before anything else, and once it is lost it may not be restored through simple healing effects.
* **Strength:** How much physical strength the character has. This dictates the power of their physical moves.
* **Defence:** How much physical resistance the character has. This dictates how much the character can resist physical moves.
* **Stamina:** How fast the character can move. This effects their actions’ placement in the order of execution.

### Abilities

All characters have an ability. This is a passive effect that has some impact on combat, but specifics vary from ability to ability. A character only has a certain number of abilities to select from and may only have one ability active at a time. These are assigned outside of combat.

### Actions

Characters have a number of actions they may pick from every turn. The order characters pick actions in does not effect the order they are executed in. Characters may not use every possible action – they only have certain actions available to them and, much like abilities, the player may select which of these the character has access to.

### Items

Characters may hold two items, which are assigned outside of combat. Items may not be consumed from any kind of external inventory – only the items that are held at the time of combat may be used, unless some effect allows the retrieval of inventory items.

## Abilities

Abilities are passive effects with an impact on combat. An ability can, effectively, do anything it wants to. Some may be very simple, such as boosting the power of certain actions, while others may be quite complicated, with nuanced conditions and interactions. For sake of implementation simplicity, most abilities will be tied to various events and then trigger some effect upon these events being called. An ability could give a character a stat boost upon it entering combat, restore a small amount of health upon the end of a turn, and so on.

## Actions

Actions are the fundamental element of combat – almost everything that furthers the state of combat will be done through actions, and what actions can do is hard to define as it can be effectively anything (within reason). Actions may be simple effects, like dealing some amount of damage or restoring some amount of health, or more nuanced effects including stat buffs, layered interactions, or even alternate win conditions.

### Cost

Actions cost a certain number of points of certain colour to use. In addition to this, some actions may require points of multiple colours. The distribution of points for mixed costs will always be equal to *(1 / number of colours \* cost)*, floored. If there is any remainder, any valid colour can be used. For example, a purple (red & blue) action that costs three will need one red point, one blue point, and one point that is either red or blue.

Actions can cost less than the number of “components” that make up their colour – a purple action with a cost of one simply allows either the usage of a red or blue point to meet its cost, but a green point may not be used.

In contrast to the other three “primary colours”, there are no named combinations with black. Instead, any combination with black is simply one black, with the rest of the cost treated as though it were a regular colour that costed one point less. For example, a black + purple action that costs 4 will need one black point, one red point, one blue point, and one point that is either red or blue.

Colourless points may *only* be used on colourless actions.

The following is a list of all colour combinations:

* **Colourless:** Any colour may be used.
* **Red:** Red
* **Blue:** Blue
* **Green:** Green
* **Black:** Black
* **Purple:** Red & Blue
* **Cyan:** Blue & Green
* **Yellow:** Red & Green
* **White:** Red, Blue & Green
* **Black + X:** One Black, with the rest of the combination being treated as X.

To simplify understanding this system for the user, actions will display the specific coloured points they need on their UI. This should help to make action costs easier to parse.

### Stats

Much like characters, actions also have a *Stat-Block*. These stats are:

* **Power:** The strength of the action. This, along with the character calling the action’s *Strength*, impact how much damage the action will do (if it does damage at all).
* **Speed:** How quick the action is to perform. Along with a character’s *Stamina*, this will affect the action’s placement in the order of execution.
* **Priority:** The priority of the action. High priority moves will always be placed before lower priority moves in the order of execution.
* **Cooldown:** How many turns after being selected the action may be used again.