# 2D Worms Clone Project Overview

## General Idea

Player controls a single character (or team of up to 3 characters) in a teamed or free-for-all dynamic. The goal is to either destroy the enemy team’s base (destructible terrain) or to eliminate the opposing characters (death match).

## Player Role

The player will make decisions that influence the outcome of the match. They will be able to choose characters that match their preferred play style/strategy (support, aggressive, tank etc.) The tools available to the player come in abilities/weapons/items that their chosen characters can use to move, attack, buff/debuff or summon other units. They will also have tools to build terrain either for protection or aiding in movement or some other utility.

## Key Attributes/Mechanics

1. Turn-based combat with limited turn duration.
2. Physics: Gravity which influences projectile attack trajectory.
3. Destructible terrain.
4. Terrain generating tools/abilities.
5. Multiplayer.
6. Unique characters.
7. Dumb AI mobs/minions that spawn in waves.
8. Environmental hazards.

## Art Style/Graphics

The players’ perspective will observe the game in 2D. Characters will move across the screen in a side-scrolling fashion. Art style is undecided, but could end up being “cartoony” (akin to Arcanists or classic Worms) or “finely pixelated” (akin to Terraria or Rivals of Aether).

## Character Development

Character development is still in the early brainstorming stage. Highlighted sections are details that are subject to change.

The game will feature 12 playable characters. Each character will have an assigned *Discipline* and *Affinity*. A *Discipline* is a high-level way of describing what that character’s playstyle is going to be or what tools and abilities will be available to them. For example, characters of the *Might* discipline will generally fit into an upfront/melee/aggressive play style while characters of the *Mana* discipline will prefer to stay back and cast abilities from afar. An *Affinity* is a way of describing more specifically, what element the character will use for abilities. This also has a direct influence on what type of terrain the character can generate. For example, a character with an *Affinity* to *Earth* might have abilities that bolster ally’s defenses, cast meteors to deal damage and destroy terrain or spout oil to slow enemy movement.

## Gameplay

Each match will start by loading the selected (or random) map preset. Preset details include what type of environment the map is and what it looks like (graveyard, island, volcano) as well as the terrain layout shape (“V” shape, flat, “A” shape, sporadic). When the level is loaded, characters are placed in areas appropriate to the game mode being played (See game mode description below). Characters will start the match with a determined amount of health, armor and mana. When a character’s health reaches 0, they either lose or have to wait a set amount of time before the respawn, depending on the game mode. Armor is a resistance system to damage. It will either be a finite amount like health or an implicit mechanic that reduces damage invisible to the player’s sight. Mana is a regenerating resource that will place restrictions on a player’s choices when it comes to casting abilities. Each ability will cost x amount of Mana and a character gets y amount of mana per turn.

### Deathmatch

The win condition in the Deathmatch game mode is simple: eliminate the opposing player controlled characters. The game is over when all characters are eliminated except one. This can either be free-for-all or team based.

### Outpost

The win condition in the Outpost game mode is to destroy terrain that makes up the enemy team’s base object to a predefined point. After rendering the terrain, the game will place all terrain blocks that make up a base in a logical object. We’ll call this *baseHealth* and it will keep track of the health of the base. As terrain is removed (destroyed), baseHealth will be updated to reflect the new amount of terrain it has. Once the amount of terrain reaches below a certain point (baseHealth < 10% starting terrain amount), the base is considered destroyed and the opposing team wins. Players are encouraged to use whatever strategy they feel is best to achieve this win condition. If a player’s character dies, the player must wait x amount of time before their character respawns in the base location. Currently considering removing turns altogether for this game mode to favor a faster, more frantic style of gameplay. If turn system is removed, dumb AI “mobs” will spawn in waves. They spawn at one base and travel in the direction of the opposing base. They will have a minute amount of health and will deal damage to the opposing players, mobs, summons, structures and base.