

Primal Clash: Design Document

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Overview

Our game currently with the placeholder name Primal Clash is a 3D tower defense game where the player must defend their base on one end of a map from incoming monsters from another side.

Gameplay

The main gameplay of Primal Clash is consisted of changing the map layout the suit the game and to upgrade the towers to deal with the increasingly difficult waves of monsters coming toward the base.

For the map system, the player must create their pathway to suit the randomly generated terrain. If the towers spawned at the start are close, it is important to make the pathway have as much contact with the towers since there is more overlap in their zones of damage increasing the likeliness of enemies getting killed. Another example would be placing a tower on a tree takes fewer resources than creating one on flat land.

The second main mechanic is the tower upgrade system. We will try to create as many interesting and unique upgrades for the towers that the player can choose for the towers. This allows them to customize towers and give them different combinations of towers making each tower unique if the player wants. This way the player can choose they if a tower near the starts needs to slow down enemies in the back, they can give it the slow upgrade instead of buying a tower specifically for slowing.

After those two there is the minor world interaction involved from the terrain. Players can choose to destroy the terrain to make the map free of any obstructions or use them to their advantages such as building on trees or rocks. This will save them resources and therefore allow them to upgrade more frequently.

The player must also learn the different types of enemies and their weaknesses to further optimize their layout. If they notice they are having a hard time with ice enemies they may add a fire upgrade to a tower to better combat them.

With all these the goal is to survive to the end of the eaves and defeat the final wave with the boss to win the game.

Game Elements

The many game elements in our game are enemies, upgrade tools, towers, map pins, shots, and random terrain items such as trees and rocks.

Enemies

Enemies spawn at the start of each round at the starting point of the pathway. During each round, a certain amount of enemies spawn. There are different levels of enemies ranging from weak to small. As the round begins, enemies spawn and try to follow the pathway to get to the base at the end and damage it. It is up to the player to have enough towers with the proper upgrades to defeat the right enemies and pick up the upgrade tool they may drop upon on death. For example, if the enemy were an ice type, the player should have a tower that shoots fire to defeat it.

Upgrade Tools

When enemies die they have a small chance of dropping upgrade tools. These are just random items like bricks or cannonballs that can be consumed to upgrade towers or build more roadway. Upon having enough, the player can click on a tower during the round or in between and choose what type of upgrade to give it which will consume the appropriate amount of upgrade tools they may require. Or in between rounds change the maximum pathway size if they so wish or a small fee to change the map at all.

Towers

Towers are the objects that fight the enemies that come on the pathway. At the start, about 4 towers are spawned randomly in and all towers are the same and it is up to the player to decide what upgrade they want to choose from a selection. Upon choosing, that tower consumes some upgrade tools and gain new abilities like shooting fire projectiles or slowing enemies. If we can find a way we will try to make the towers look differently based on what they do but we will see how much we can get done in this short period of time.

Map Pins

These are the central way of editing the pathway system. In between levels the player can pick up map pins which determine the points of the pathway. So if a player wanted a “V” shaped pathway they can move a pin in the middle all the way down and the starting and end pins all the way up. This allows for a dynamic map layout in control of the player the game. The only caveat is that there are procedurally generated trees and rocks which make some areas unable to have a path. This makes the map pin system have a purpose. The player must choose the optimal route around their towers that spawn at the start and the terrain.

Shots

Different towers shoot different types of shots. Regular towers will simply shoot boulders while with upgrades these can be ice balls, fireballs, and more. Each different

shot will reflect the tower upgrade and do different types of damage to the enemies. Enemies with ice susceptibility will be more damaged by ice shots.

Random Terrain

These will be simple things like rocks, trees rivers, etc. Random natural things that will obstruct the map so it is not a completely barren wasteland that allows for any and all configuration of the pathway system. If the player chooses they may destroy these at the price of some upgrade tools.

Interaction

As a whole, these all work together to make the game what it is. The terrain and towers that spawn at the start give the pathway system meaning. Enemies follow the pathway system to get to the end and as they do the towers shoot shots to damage them. Upon their death, the enemies will drop upgrade tools which can be used to upgrade towers that shoot new shots, change map pins to alter the pathway or remove terrain.