Game Design Document

Dark Wave (*Codename*)

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Note: EVERYTHING on this document is not set in stone. Suggestions can be made to change any and all features documented here.

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# Project Overview

## Executive Summary

Dark Wave is a game about defending and expanding your final bastions against hordes of the Undead. The players fight as humanoid bunnies with guns and melee weapon and build powerful defenses to help defend the Life Crystal.

## High Concept

*The premise of the game.* *The Undead and their abilities reflect the stories and beliefs of real human cultures.*

## Core Gameplay

One to three player cooperate first-person shooter and base building, defending one or more objectives from waves of enemies.

## Genre

First-Person Shooter, Strategy

## Target Audience

Teens and Adults unless we include at least moderate gore, in which case very young teens may also be excluded. Not for young children.

*\*Manly voice\* Rated T for Teen.*

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# Game Overview

*Italicized* text is a very base description, flavor text (usually from the Architect’s point of view), or filler text.

## Overview

Like [High Concept](#_High_Concept), but more detailed.

*Dark Wave is not strictly a tower defense game since the players can play without the Architect. However, the player can choose that kind gameplay by playing as the Architect and investing into preparations. If playing with friends, the Golemancer can even build only golems to repair walls and towers, and the Consecrator can create symbols on the walls and towers.*

## Story

Short Version: Earth has two intelligent races: humans and <humanoid bunnies> (doesn’t have name right now). During the 21st century, the entire universe is infused with high levels of negative energy, killing all living creatures. Some days later, a Life Crystal on Earth activates and resurrects three <humanoid bunnies> from death. The Undead that have risen during those few day soon come for them and the Life Crystal, so the three use their weapons and abilities to defend the Life Crystal to give it time to expand and activate the other Life Crystals across the world in a final effort to undo the catastrophe and figure out who or what caused it (a wizard did it).

## Characters

### The Architect

The Architect is relatively tall and skinny <humanoid bunny> with exceptional aim and civil engineering skills. With these abilities, he can build tall walls and turrets to defend key areas while spotting and shooting the Undead from all sorts of ranges with his powerful rifles: automatic and three-shot burst mid-range rifles as well as a long range bolt-action rifle.

The Architect is a light-hearted yet focused individual, and often takes charge if needed be. However, he is secretly terrified of the Undead in contrast to the Golemancer and tends to panic if the horrors get uncomfortably close. He dons large gloves when building structures and switches them off for sleek hunter gloves when fighting.

### The Golemancer

The Golemancer is one of the strongest <humanoid bunny> to ever live. She carries up to five heavy weaponry: a minigun, a flamethrower, a large axe, and a huge hammer. All of her weapons don’t do well at large distances, so she fights near the Undead. Unlike the Architect, she is not too afraid of the Undead and enjoys destroying them. Her skills as a chemical engineer allows her to construct and animate golems that perform specific tasks based on the model.

The Golemancer is generally proud and brash, but not dumb. On to contrary, she’s a very intelligent individual much like the others, even if she usually doesn’t sound like it. She wears a large piece of cloth around her neck when fighting and on her head when building golems.

### The Consecrator

The Consecrator is a bit shorter than the other two <humanoid bunny>, and not as strong as the Golemancer (in terms of muscular strength). His occupation as a nuclear engineer and studies of ancient tomes allow him to easily manipulate positive and negative energy. This gives him the abilities to consecrate the ground with proximity-triggered symbols, and see the vulnerabilities of negative-based creatures such as the Undead and exploit them through flanking attacks with his pistols and dagger.

The Consecrator was an acquaintance of the two siblings before the catastrophe. He’s usually quiet and kept to himself when there’s nothing to say, but loud and direct when an important matter needs saying. He wears a dark hood over his head while fighting, but removes it from his head while marking symbols on the terrain (*the force would fling it back anyways*).

# Gameplay

*Italicized* text is a very base description, flavor text (usually from the Architect’s point of view), or filler text.

## Combat

Players will fire guns and swing melee weapons at Undead by aiming with the mouse. Damage done will reduce the Undead’s health until it is zero, after which that particular Undead is destroyed. The Architect’s and Consecrator’s weapons have unlimited reserve ammunition, but the weapons’ current magazine must be reloaded when empty. The Golemancer’s minigun and flamethrower can be fired continuously without worry of ammunition, but will overheat if fired for too long. If a weapon overheats, the Golemancer cannot perform any actions other than moving until the weapon stops burning her hands. The Golemancer’s axe deals heavy damage, and her hammer weakens foes it strikes, reducing their speed and damage*. Ammunition is unlimited since the weapons use a conversion battery that coverts the plentiful amounts of negative energy into projectile-based (combustive for flame thrower and glowing force for melee weapons) positive energy. Positive energy heals the living and harms the Undead, but weapon attacks only harm the undead.*

Most [abilities](#_Abilities) used by players also assists them in combat through a variety of means.

The Undead will try to kill the players, destroy structures and golems, and annihilate the Life Crystal with a variety of attacks depended on the kind of Undead. Most undead focus on the Life Crystal over other targets. Many of their attacks damage health like the players’ attacks, but some are abilities that hinder the players in different ways. The type of Undead plays a large part in the abilities it can use to fight.

Health is very slowly restored to players over time. Players standing near the Life Crystal will gain health slightly faster. Some abilities can restore a significant amount of health.

Movement is done using the keyboard (or joystick for consoles). The speed of movement is close to a hustle. Most Undead that aren’t aggravated towards the players move slightly slower, but will move a little bit faster than the player when the Undead goes for them. Players can also jump roughly five to six feet high, but horizontal movement remains the same (or slightly slower?) while jumping to avoid jumping (or bunny-hopping) being a faster means of travel.

### Weapons

Weapons are the primary way for the players to deal damage to the Undead. Ammunition is unlimited, but the weapons must either be reloaded or kept from overheating. All players start with one weapon and can unlock more by investing into the Weaponry [attribute](#_Attribute_Point_System) line. There is no limit to the number of weapons a player can carry, but only one can be fired or swung at a time.

|  |  |  |
| --- | --- | --- |
| Architect  Medium range and long range rifles that deal great and accurate damage. Weapons must be reloaded to continue firing. | Golemancer  Short range weapons that deal high cleaving damage. Weapons do not have to be reloaded, but the Minigun and Flamethrower can overheat if fired for too long, preventing the Golemancer from performing any action other than movement until it cools down. | Consecrator Medium range guns and a short range dagger that deals great damage with low rate of fire, making every shot count. |
| Assault Rifle  Always unlocked. It has a high rate of fire, decent accuracy, and a relatively large magazine. | Minigun  Always unlocked. It deals high damage at short ranges, but the wide spread means enemies takes very low damage at higher ranges. | Revolver Always unlocked. It has a rate of fire higher than the Hunting Rifle but lower than the Burst Rifle, and deals very great damage. Small magazine size. |
| Burst Rifle  Must be unlocked. It has a relatively lower rate of fire and magazine size than the Assault Rifle, but higher accuracy. | Flamethrower  Must be unlocked. It deals high damage, but only at short range. Undead hit by the flames will start burning, dealing damage over time for a certain time. Flames cannot be blocked by shields or other means of defense. | Handcannon Must be unlocked. Functions like the revolver, but it has a rate of fire almost as slow as the Hunting Rifle and reduced accuracy, but deals even more damage than the Revolver and destroys Undead who are at low health. |
| Hunting Rifle  Must be unlocked. It only fires one shot at a time, has a very small magazine size, but the highest accuracy of all weapons in the game. It also deals very high damage. The bullets also pierce enemies. | Greataxe  Must be unlocked. It deals very high damage and cleaves foes in front of the player. Destroys Undead who are at low health. | Dagger Shard Must be unlocked. This dagger deals less damage over time compared to any other weapon when visible, but deals massive damage when invisible, and even more when attacking from behind. |
|  | Hammer  Must be unlocked. It deals significantly less damage than a Greataxe, but can interrupt enemies’ abilities and reduce the damage they can deal. |  |

### Grapple

The Undead will occasionally try to grapple the players in melee. During a grapple, the player must press the fire key at timed, irregular intervals shown quickly on the screen to move a visible red line with a bar above the grapplers to the right. The line will periodically move to the left as the grappling Undead tries to overpower the player. If the bar moves all the way to the right, the player win the grapple, knocking the Undead away from the player and stunning the Undead. If the Undead wins, it kills the player.

Most grapples are easily won, but multiple Undead can join in to assist. If that happens, it’s usually impossible to win. In contrast, allies can kill or interrupt the Undead to break the player free. It is harder to win a grapple if the player is grappled from behind.

## Attribute Point System

After thinking over the effects the Vice attribute line will have on gameplay and multiplayer interaction, it would be best to replace it with something else. One idea would be a setting presented after selecting a level that changes the difficulty by turning on individual bonuses for the undead to possess (such more witches, enemy damage increase, and vampires always spawn with blood) in exchange for a smaller benefit to the players (such as shard multiplier, score multiplier, and/or hats?). – Nicoli W.

At the start of each Preparation [Phase](#_Phases,_Light_and) except the first Phase of the first level, the players gain attribute points. Choosing levels other than the first allows the players to begin with attribute points as if they had gained all the points from progressing through the previous levels.

The players can enhance their characters by spending attribute points during the Preparation Phase. There are four attribute lines to spend points in: Weaponry, Engineering, Spirit, and Vice. Weaponry improves the use of weapons. Engineering improves preparations. Spirit improves abilities inherent to the character that are not directly tied to weapons or preparations. Vice is essentially wasted points that gives cosmetic effects to the player, which indirectly increases the difficulty. Every point in one of the first three attribute lines slightly improves core action and abilities based on it. Improving Weaponry improves damage and another weapon stat. Improving Engineering improves some of the numerical attributes shared by all preparations of the same type (example: all turrets deal more damage; all golems gain more health; all symbols have their area of effect increased). Improving Spirit depends on the character and always improves a core passive ability tied to that attribute line: The Architect’s abilities that deal with perceiving the enemy are improved. The Golemancer’s abilities that improve her resistance to control effects and damage are improved. The Consecrator’s abilities that manipulate life and death energies are improved. Improving Vice makes the character look cool.

When certain thresholds are reached, the player gains new abilities. These can be new weapons that perform better in specific situations (there’s no weapon carry limit), new preparations, and abilities that reflect the skills of the character. (*Should thresholds present a* ***choice*** *in abilities in which only one can be chosen?*) Placing more points into the same attribute line will improve abilities associated with that line at certain thresholds as well. All abilities in the Vice line are pretty much useless, but fun.

The player can reallocate all points at the start of each Preparation Phase. If attribute points are not spent at the end of the Preparation Phase, they will be automatically allocated to unfilled attribute lines with the most points. If the attribute lines are equal, they will be allocated to the weapons line.

Weaponry, Engineering, Spirit, and Vice are general names that change based on the character played. The Architect has Marksman, Structures, and Perception. The Golemancer has Heavy Weapons, Golems, and Will. The Consecrator has Dexterous Arms, Symbols, and Energy Manipulation. The fourth attribute line for each character is the Architect’s Sloth (motivation deteriorates in a seemingly hopeless situation), the Golemancer’s Wrath (giving into her rage stemming from the loss of her world), and the Consecrator’s Pride (in his unique powers that no one has come close to achieving).

|  |  |  |
| --- | --- | --- |
| Architect Attributes | Golemancer Attributes | Consecrator Attributes |
| Marksman Each point slightly improves weapon damage and accuracy. | Heavy Weapons Each point slightly improves weapon damage and their secondary effects. | Dexterous Arms Each point slightly improves weapon damage and rate of fire. |
| Structures Each point slightly improves structures’ health and damage. | Golems Each point slightly improves golems’ health, damage, and movement speed. | Symbols Each point slightly improves symbols’ base effects and radius of effect. |
| Perception Each point slightly improves [Spotter](#_Spotter_–_Passive). | Will Each point slightly improves [Tough](#_Tough_–_Passive)ness. | Energy Manipulation Each point slightly improves [Fading Light](#_Fading_Light_–). |
| Sloth Hats. | Wrath More Hats. | Pride Hats on Hats. |

## Win and Lose Conditions

A level can be broken down into territories called Light and Dark Zones and periods of time called the Preparation and Defense Phases.

At the start of a typical level, each player appears next to the large Life Crystal that they must defend. There are two Phases that cycle back and forth: Preparation and Defense. During Preparation, the players prepare for onslaught by spending Shards on their preparation abilities and allocating attribute points to improve their characters. During Defense, the players achieve one of three win conditions that results in either entering the next preparation round or finishing the level, all while avoiding the lose condition of having their Life Crystal destroyed by the Undead. Players do not lose by being killed. The win conditions are destroying all Undead, stalling the Undead long enough to run the timer out, or taking territorial control of the Dark Zones.

## Phases

### Preparation

At the beginning of the Preparation Phase, the players spend their separate Shards on preparation abilities and repairs to existing preparations (Consecrator needs to pay an upkeep to keep existing symbols?). Nearly all preparation abilities are great defensive tools, no matter what character is used. Additionally, the players can allocate new attribute points to their attribute lines, or reallocate spent point. Although this Phase automatically ends after a set time, the players can end it sooner by pressing the ready button. All players must press the ready button to end the Preparation Phase early. (Idea: Preparation Phase timer is less for each consecutive round) Once this Phase ends, the Defense Phase begins.

### Defense

During Defense, the players must protect the Life Crystal by keeping the Undead from destroying it or lose. To complete Defense, the players can destroy all of the Undead in the current Defense Phase, time it out and have the Life Crystal wipe out the remaining Undead, or take total control of all active Dark Zones.

Destroying all of the Undead will be the most common course of player action. The players can destroy the Undead by attacking them with guns and melee weapons alongside their built preparations and abilities. Players that focus on impenetrable defense (turtling behind preparations) will often win by stalling, although most the Undead will die from the defenses in the process and thus this method may roughly take the same time as the first win condition, but is still the longest. The last win condition comes from a heavy offense by taking initial control of the active Dark Zones and managing a wide defense by holding those Zones for a lengthy period of time *and* keeping the Life Crystal safe. Due to the relatively higher difficulty of the third win condition, the time it takes to trigger the win condition after taking control all Dark Zones should be significantly less than the previous two win conditions unless the players lose and restart the Phase.

Once a win condition is met, the Defense Phase ends, current Undead are destroyed, and the active Dark Zones become Light Zones. All players are fully healed. Either new Dark Zones appear and the Preparation Phase begins, or the entire level is complete. All Shards that haven’t despawned will still be there until their timers despawn them normally.

However, if the Life Crystal is destroyed during the Defense Phase, all players are immediately killed as the Light Zones fade into Dark Zones. By vote, the players can restart from the beginning of the Defense Phase, the beginning of the Preparation Phase, or the beginning of the first Preparation Phase (start of level).

## Light and Dark Zones

Dark Zones are territories controlled by the Undead. The Undead spawn from the Dark Zones and move into the Light Zones where the players, Life Crystal, and Shards reside. The Dark Zones that border the Light Zones are active Dark Zones and are the only Dark Zones the players can move into and capture. Other Dark Zones are inactive, pitch black, and drain the players’ health. When a Defense Phase is complete, active Dark Zones become Light Zones and the bordering, inactive Dark Zones become active Dark Zones. When all Dark Zones on the level become Light Zones, the entire level is complete.

## Basics of Shards

*Shards stem from the Life Crystal as it grows through the earth.* At the very beginning of a level, the players start with their own stockpile of Shards that is kept tracked of on their screen. Shards in the players’ possession has no physical presence on the map, and only spawn during the Defense Phase. When they spawn, they can be collected by moving next to it and interacting with it. Collected shards are copied to every players’ stockpile. Shards on the map disappear after a set time, so balancing the time spent collecting shard and killing Undead is important. More shards tend to appear near Dark Zones, so staying near the Life Crystal all the time and missing too many Shards will make later Defense Phases harder to beat.

## Abilities

Players have three types of abilities: Passives, Actives, and Preparations. Players start with only a few abilities, but can unlock new abilities or improve current ones with the Attribute Points System. All abilities also belong to one of the three attribute lines. Passives function automatically either all the time or under certain conditions. Actives are activated manually by the player, and have either a cooldown period during which the player cannot use it, or a resource that must be filled before the ability can be executed. Preparations are abilities that cost Shards to use, can only be used in the Preparation Phase, and are used to create character-unique defenses. There is a limit to the number of preparations each player can build.

### Preparations-by-Character Overview

The Architect’s structures are immobile, but are harder to destroy than golems and are better at area-of-denial. Although walls and turrets aren’t as versatile in their effects compared to golems and symbols, nearly all Undead cannot pass through them unless they’re destroyed. Structures with unique attributes such as a healing safe-haven can be built at the cost of being easier to take down.

The Golemancer’s golems are mobile and versatile, but easier to destroy than structures (but aren’t flimsy). Depending on the type of golem built, it can fill an offensive, defensive, and/or supportive role. Some actions include killing Undead, collecting Shards, and healing. Even though walls can completely halt enemy advancement with ease, golems are great at heavily slowing down enemy advances in multiple frontlines and are just as viable.

The Consecrator’s symbols are immobile, but are invincible to nearly all attacks. Symbols deal negative effects to groups of enemies that enter its trigger range while simultaneously aiding allies. Some symbols create stronger effects at the price of versatility or another constraint, such as triggering when vampires come near. Although symbols don’t usually completely halt enemy advancement, the additional effects they bring can still heavily slow them down or even completely wipe them out.

As stated before, all three characters’ preparation types are excellent in keeping the Undead away from the Life Crystal, and players should be able to solo levels with any character if they start a level solo since the difficulty of the level scales with the number of players that start it.

|  |  |  |
| --- | --- | --- |
| Architect Abilities | Golemancer Abilities | Consecrator Abilities |
| Focused Perception – Active (Perception; Charged with Kills; Always Unlocked) The Architect and all allies can see all Undead through any terrain and invisibility, and deal extra damage to them. All Undead are revealed on the minimap. | Burst of Rage – Active (Heavy Weapons; Charged with Kills; Always Unlocked) The Golemancer performs a devastating attack based on the weapon used. The charge does not dissipate all at once, but simply drains over time after the initial attack. While it is draining, all attacks are improved, but the player is locked into the weapon she initiated with. | Quickened Symbol of Death’s Bane – Active (Symbol; Charged with Kills; Always Unlocked) Unlike other symbols, the duration of this one is finite, costs no Shards, and can only be used during the Defense Phase. The Consecrator slams his hand into the ground and creates the symbol. The symbol pulses as soon as it is created.  With each pulse, Undead on the symbol are immobilized and heavily damaged, and Undead near the symbol are heavily slowed and moderately damage. Undead that are destroyed on the symbol explode, damaging other Undead and healing allies. With each pulse, allies on the symbol are invulnerable to all damage and abilities, and allies near the symbol are invulnerable to only damage. Invulnerability lasts a time equal to the period between pulses. |
| Mark Target – Active (Marksman; Cooldown; Must be Unlocked) Marks an Undead with his next shot, causing it to glow brightly and receive additional negative effects such as more damage taken when attacked by the Architect or his allies. | Taunt – Active (Will; Cooldown; Must be Unlocked) Most nearby Undead are forced to attack the Golemancer mindlessly, preventing affected Undead from using most of their abilities during the ability’s effect. (Ideas: conical effect has a much better chance of affected Undead (100%?)). | Living Aegis – Active (Energy Manipulation; Charged over Time; Must be Unlocked) The Consecrator solidifies energy to blocks attacks in place for just less than a second by using a percentage of the ability’s charge. This charge is replenished over time. Additional effects may trigger if an attack is successfully blocked. |
| Life Bolt – Active (Marksman; High Cooldown; Always Unlocked) The Architect drains his own health based on how long he holds the button (this cannot drain him past one health) with a special bolt. It initially takes a significant chunk of health. Upon letting go, the player loads the bolt on a crossbow and readies aim as any other rifle. Pressing fire will fire the bolt. If it strikes an ally, they are healed in proportion to the amount of health the player sacrificed. If the ally was dying, they are revived and healed in a smaller proportion. If it strikes an Undead, it takes massive damage in proportion to the amount of health the player scarified. If it strikes the terrain, it heals allies and damages Undead in a small area of effect by a small proportion to the sacrificed health. | Life Blood – Active (Will; High Cooldown; Always Unlocked) The Golemancer can only use this ability next to a player or undead. When used on the player, the Golemancer yanks a large cord out of her side and inserts it into the other player by holding down the ability. The longer it’s held, the more health the Golemancer sacrifices from herself to heal the other player in addition to the initial chunk of health loss. The Golemancer cannot move, but the player can (the cord will lengthen or shorten based on the distance between the two) and the Golemancer’s Toughness ability is significantly improved. If used on an Undead, the Golemancer grapples the Undead. If she wins, the player holds down the button to plug the same cord into the Undead and sacrifice health. The Undead takes massive damage in proportion to the amount of health sacrificed. If the Undead is destroyed during the process, the player stops sacrificing health. If the player lets go, the Golemancer jumps off the Undead. In any case, the player cannot go past one hp. *Normally, Vampires would be into this, but the cord is lined with a substance that makes the blood dangerous to all Undead, but perfectly harmless to living creatures (if she knows what she’s doing).* | Quickened Symbol of Life Transfer – Active (Symbols; Long Cooldown; Always Unlocked) Unlike other symbols, the duration of this one is finite, costs no Shards, and can only be used during the Defense Phase. The Consecrator drains his health based on how long the ability is held. When the player lets go, the ability is contained in the Consecrator’s hand. When the player presses the fire button, the Consecrator slams his hand into the ground and is immobile until the symbol finishes, a time based on the health sacrificed.  Allies except for the Consecrator near and on the symbol are healed in proportion to the amount of health sacrificed. If there are two allies, the health healed is split between them. Undead near and on the Symbol are completely paralyzed until the healing is done. If no one is being healed, the paralysis length still depends on how long it would have taken to heal allies based on sacrificed health. |
| Spotter – Passive (Perception; Always Unlocked) The proximity that an Undead has to be in order to appear on the minimap and lose invisiblity is extended for the player and all allies, making it harder for Undead to get close while undetected. Does not work while the Architect is dead. | Toughness – Passive (Will; Always Unlocked) The Golemancer takes less damage from attacks and is harder to control, including grapples and special abilities such as being enthralled by a Vampire. | Fading Light – Passive (Energy Manipulation; Always Unlocked) When the Undead loses line of sight of the player, the player’s life force fades after a short time, causing him to be mostly invisible to the Undead. The Undead typically cannot target invisible players. Being within line of sight of the Undead for too long while invisible or simply attacking will break invisiblity. |
| Primal Fear – Passive (Perception; Always Unlocked) If an Undead is at least almost next the Architect, the character’s weapon will shake and lose accuracy, but all actions are performed faster (including movement, firing weapons, and reloading). This lasts for a short time after the Architect is no longer near an Undead. | Vital Spirit – Passive (Will; Always Unlocked) The Golemancer is so full of life that it mocks the Undead almost as much as a Life Crystal, causing the Undead to attack the player more often than other characters. This effect diminishes based on the player’s current health. | Flanking Zeal – Passive (Dexterous Arms; Always Unlocked) All attacks made by the Consecrator that strikes an Undead’s sides or back deals additional effects. |
| Wall – Preparation (Structures; Always Unlocked) The Architect builds a wall piece on a tile. The wall connects with other walls, some structures (explicitly stated in other structures’ descriptions), and impassible terrain. Players that jump on the wall’s side can press the jump button to jump directly up again, making it easy for players to climb on top of them. Most enemies cannot pass through or over the wall, and will likely try to destroy it to clear a path to the Life Crystal. Walls can support a turret on top of it. | Sentry – Preparation (Golems; Always Unlocked) The Golemancer builds a golem that patrols a selected area and fights with ranged and melee attacks based on the distance of the Undead to it. If the golem survives to the next Preparation Phase, the player can change its patrol area. | Exposed Prowess – Passive (Dexterous Arms; Always Unlocked) Undead that see the Consecrator prevents him from using Flanking Zeal on them. However, if the player attacks these Undead, they inflict effects different from Flanking Zeal. |
| Turret – Preparation (Structures; Always Unlocked) The Architect builds a turret on a tile. It can also be placed on top of a structure that can support it (the turret will share the structure’s health). The turret will lock on the closest Undead within line of sight and area of attack and fire upon it until the target or the turret is destroyed, or the target leaves line of sight or area of attack. Turrets have unlimited ammunition and deal significant damage. *Undecided on whether or not to give the option to build on ruined building on the map.* | Miner – Preparation (Golems; Must be Unlocked) The Golemancer build a golem that does not attack, but instead moves relatively faster around the region of the map to gather shards. Collected shards are copied to all players as normal. The Golemancer can restrict where the Miner can move on the map during the Preparation Phase. | Symbol of Positive Energy – Preparation (Symbols; Always Unlocked) Consecrates the selected terrain. When triggered by Undead Proximity, it pulses until no Undead are within proximity. With each pulse, Undead on the symbol are damaged and heavily slowed, and Undead near the symbol are slowed. With each pulse, allies on the symbol gain a little health, and allies near the symbol gain a smaller amount of health. |
| Tower – Preparation (Structures; Must be Unlocked) The Architect builds a tower on a tile. They’re only slightly taller than walls. Walls can connect to towers, but towers cannot connect to towers. They are hollow and can be entered by passing through a door of positive energy that enemies cannot cross. The tower reveals Undead up to a certain distance, allowing players to see them through invisibility and on the minimap. Additionally, players inside the tower slowly regenerate health. Players can climb internal stairs up to the roof. The tower has significantly less health than a wall, and players will die if they’re inside while the tower collapses (delayed time?). Players will be notified of a tower’s health at all times while near or inside it. Towers cannot support a turret. |  | Symbol of Blood – Preparation (Symbols; Must be Unlocked) Consecrates the selected terrain. When triggered by Vampires, it pulsed until no Vampires are within proximity. With each pulse, Vampires on the symbol are immobilized and drained of sucked blood, and Vampires near the symbol are greatly slowed and try to flee. With each pulse, allies on the symbol steal the Vampire’s lost blood as power and cannot be targeted by Vampires’ attacks, and allies near the symbol cannot be targeted by Vampires’ attacks. This power improves weapon damage up to a cap, and is lost over a short period of time. |

### General Abilities

These abilities can be used by any character, but some abilities may change in functionality based on the character using it.

#### Diehard – Passive (Spirit; Must be Unlocked)

Current iteration of Diehard could be replaced with mechanics such as a chance of ignoring fatal attacks, or having the passive replace regular death while toning down some of the effects. – Nicoli W.

When the player reaches zero health, the character does not start dying. Instead, their character is locked into the weapon they are using and prevented from using any other abilities (except for the Consecrator’s Flanking Zeal). A second health bar appears and begins to drain at an ever increasing rate. This can be slightly recovered by killing Undead. If the secondary health bar reaches zero, the player will then start dying as normal. Other players can revive players in the Diehard state instead of only when they’re dying. Depending on the character chosen, the following happens while the second health bar is active:

* The Architect falls to the ground and can only move by crawling. He can remain still and hold his fire to improve the aim and damage of his next shots (told to the player through visual/audio cues), or simply shoot at reduced accuracy. The player will use their legs to knock back most foes that come within melee range that he’s firing at.
* The Golemancer berserks, moving faster and dealing more damage with her weapon as time passes, and gaining extra health for each foe slain compared to the previous foe. However, she becomes more vulnerable to attacks over time as well. There’s a limit to how fast and powerful she becomes and how high the bonus healing can get, but there is no limit to the extra damage she takes to the point that eventually even a single hit will defeat her (in addition to the ever increasing rate of health being loss while Diehard is active).
* The Consecrator infuses himself with negative energy, rendering him completely invisible to enemies when remaining still. In addition to gaining health from defeated foes, the Consecrator steals their negative energy. This energy can be expended to turn the undead, forcing them to fight for him for a brief time. More energy is needed to turn Undead with more health. The player turns the Undead by interacting with them in melee range. However, negative energy slows his health drain rate; the more the player stores, the slower his health falls. The Flanking Zeal passive is not disabled while Diehard is active. 100% Invisiblity allows him to safely revive if playing with other players. Idea: lose invisibility while attacking/moving.

## Death

A character begins dying when the player health reaches zero. While dying, the character falls to the ground, cannot move, and can only fight by firing weak pulses of medium-ranged energy from their arm-brace. The character gains a health bar that quickly drains to zero, killing the player if it empties. Other allies can revive the player by using their revive abilities. If the player is killed, they will respawn at the Life Crystal after their death timer finishes or when the Defense Phase ends. If the player is revived before being killed, they stand up and can play normally. *Ideas: lose x or x% shards.*

[Banshees](#_Banshee) will alert other players that an ally’s health is critically low or is dying.

## Entities

Detailed descriptions all the non-player entities in the game world.

### Corporeal Undead

Humans who have died either from the event or in the past that have returned from the dead to destroy all remaining life.

*Common traits of the Undead with a body.*

#### Revenant

Revenants are common Undead. They attack in melee with their hands or weapon, or at range with arrows or guns. Their health and damage is fairly low, but they are very numerous. Occasionally, Revenants will try to grapple the players.

*The general bad guy. Kind of slow but pretty tough. They are usually not a problem. Just don’t get mobbed by them. Technically, all of these silly Undead are Revenants, but these guys are so plain that no other label fits them.*

#### Zombie

Zombies are Undead that have been reanimated and placed under control of another creature. They’re about as powerful as Revenants (not very), but will cooperate as a unit. For instance, they may all try to grapple the same target.

*There is actually a difference between a Revenant and a Zombie. Revenants return from the dead with the intent to haunt or harm the living. Zombies are brought back from the dead from some outside force and are usually forced to do that force’s bidding. Usually witches. It’s important to note this distinction because Zombies are under a command of an intelligent force, and will be harder to predict as a result. Destroy that command and the Zombies will just mindlessly go for the Life Crystal or us, whichever is closer.*

#### Draugr

Draugar are Undead with powerful abilities. They have significantly more health and damage than Revenants, which is visually expressed from their metal armor and weapons.

If their health falls to zero and they were not shot in the head or attacked with a melee weapon, they’ll fall to their knees, and later stand up again with some of their health restored if not dealt with by using the aforementioned attacks.

Draugar possess one of several abilities that makes them more even dangerous than Revenants, made apparent by the color of their armor:

##### Wisp Form

Allows the Draugr to turn into a wisp after concentrating for a time, allowing it to pass through impassible terrain and the Architect’s walls. Used by blue-tinted Draugar.

##### Curse-Bearer

When the Draugr’s health falls to zero but aren’t destroyed, it will destroy itself after channeling a loud curse on the nearest player. Red magic circles will appear around the Draugr and the target player until the curse is complete or the Draugr is destroyed. If the curse is complete, it will negatively affect the player for a significant time. Used by red-tinted Draugar.

##### Plague-Bearer

If the Draugr strikes a player, that player will become afflicted by one or more negative effects. Used by green-tinted Draugar.

*This is what we get for living in Northern Europe. Even tougher than regular Undead, and they’re also intelligent. They usually have one or more strange abilities like phasing through terrain, shapeshifting, or uttering a final curse on us before they’re destroyed!*

#### Vampire

Vampires are Undead that will usually stalk and attack the players over other Undead objectives. If a Vampire initiated a grapple on a player, the Vampire drains the player’s health as it sucks their blood through the player’s neck or guts (*yes, they can bite your guts for blood*). Sucked blood increases the Vampire’s movement speed, maximum health, damage, grapple power, and may unlock additional abilities. Without blood, they’re dealt as easily as a weaker Draugr with lesser abilities. Vampires use hit-and-run tactics to sneak up on the players with murderous intent, and flee if the player survives the attack.

*They tend to go for us rather than the Life Crystal. They’re much like Draugr such that they have strange abilities, but they’re usually initially weak and need to feed on life force. Fortunately they cannot feed on our structures that is power by life force, except the Life Crystal. Unfortunately our blood is a good source of life force, vitamins, and minerals. Not usually a problem, but they can be very cunning. I would also like to note that most of these monsters aren’t charismatic and pale. They’re ugly, ruddy when full and as blackened as any other Undead when empty, and all of their teeth, nails, and hair are just simply very long. A few fit your Dracula, but I’m still trying to figure out if I was simply enthralled during that time.*

#### Ghoul

Ghouls are Undead that are about as strong as a Vampire without blood or cunning. They will scavenge and devour the bodies of destroyed Undead and dead players to gain bonuses similar to Vampires that suck blood as well as their own unique abilities such as expelling acidic bile. If a ghoul eats a dead player, they gain even more bonuses as if they had consumed a large number of defeated Undead.

*It eats other bodies, destroyed Undead and bunnies alike, to gain power. Like Vampires, they’re usually initially weak, but they’re VERY hungry. It’s always disgusting fighting the Undead, but Ghouls are on a different level.*

#### Jiangshi

*Revenants that suffer from Rigor Mortis and pearl-white hair. They’re weird and more research (ideas) must be done. Jumping over obstacles towards the life crystal. Intercepting players in mid-air.*

#### Lich

*We had very few Liches before this catastrophe, but they like negative energy so this is pretty much heaven for them. They retained the intellect they had in life, and they’re all bloody evil mages! They cannot be permanently destroyed, and may return soon. This needs more research (ideas).*

### Incorporeal Undead

The spirits of dead humans that have returned from the dead to also destroy all remaining life. Most attacks have a good chance of passing through them without effect.

*Common traits of the Undead without a body.*

#### Ghost

*A rare sight. Ghosts are incorporeal, so you would think that they can’t do diddly squat. Wrong. Apparently they can harm the living, but the living normally can’t harm it. Good thing we don’t use regular bullets, but it always seems like half of my shots simply passes through them. Some Ghosts aren’t on the same side as most of the Undead and actually help us, if only for a brief moment. I guess that means some humans can be saved after all. This needs more research (ideas).*

#### Wraith

*A rarer sight, thank goodness. Something corrupted these once living men and women to something horrible. Its touch is extremely fatal, and worst of all, it can turn us into it! I wish I could keep the cool cloaks they wear.*

### Bosses

Creatures that are harder to deal with than their normal variants. Usually followed by standard Undead. Banshees will warn the players when a boss is about to spawn from the Dark Zone.

#### Named Draugr Boss

Leads a force of Draugr soldiers with siege. Siege deals substantial damage to structures and golems, and massive damage to players. Siege equipment do not trigger symbols. Draugr soldiers are armored and armed a mix of swords and bows, whereas the boss wields a massive blade and is a large Undead compared to others.

#### Named Vampire Boss

Leads a force of vampire underlings. Can perform a spell that immobilizes a player and drains their blood from range, although it takes a while to finish casting and can be interrupted with control effects, or breaking line of sight.

### Other Creatures

Some creatures aren’t Undead.

#### Banshee

Banshees do not attack the players and cannot be harmed. When encountered for the first time, a notification will tell the players that it is neutral, cannot be attacked, and why it appeared.

Banshees appear some determined time before an Undead boss enters the map, emitting a short and loud wail to warn the players, but not so much that it completely distracts them. The Banshee will spawn high above the area the mini-boss will come from, making itself visible enough to anyone on the level.

Additionally, Banshees will appear high above a player and *sing* a grave tune when that player is dying and shortly after death as a warning to other players.

*In human cultures, banshees are fairies that wailed before or right after a person’s death. If the person was exceptionally great, multiple banshees would wail. Some banshees may even wail because of their own death in the past. In some other cultures, including today’s, banshees are incorporeal undead whose wail can kill.*

#### Witches

Witches are powerful, evil humans that can cast spells and rituals that may hinder players and bolster the Undead. Spells are cast after a small period of time, and rituals are performed over a longer period of time. They aren’t Undead, but their witchcraft makes them immune to negative energy and vulnerable to positive energy like the Undead. Witches only have a small selection of random spells, rituals, and one familiar from a pool of available abilities and familiars.

*They’re LIVING humans that bolster the Undead and cast horrible spells in our direction!*

##### Withering Plague – Spell

Targeted player deals less damage and has a harder time winning grapples.

##### Menacing Tentacles – Spell

Targeted area erupts, sprouting massive, rotting tentacles that grapple nearby players.

##### Wells– Ritual Type

Red magic circles appear around the Witch and a dead player’s body while the ritual is being performed. If the ritual completes, the dead player’s body is destroyed (not pretty), leaving behind a massive magical well (not a literal well, but similar to symbols) that inflicts a constant effect for all players and Undead within its radius. It disappears after a time. A Witch may even take its own life to create a Well at its location.

###### Well of Darkness - Well

Players are slowed and blinded while in the well. The HUD gets really scary and uninformative. **Really** scary.

*Might be uncomfortable if using the Oculus Rift, but that needs testing.*

###### Well of Negative Energy – Well

Players take damage and are more vulnerable to damage while in the well. Undead regenerate health while in the well.

##### Impundulu – Familiar

When the Witch is threatened, this familiar may come to its aid. This Vampire is a red bird that flies near the ground. In addition to regular Vampire traits and tactics, it can slow movement and disorient aim with a thunderous cry and call down a delayed lightning bolt that stuns and deals massive damage. It is weak to fire-based damage.

##### Curse Device – Ritual

Targeted structure, golem, or symbol is destroyed. During the ritual, red magic circles appear around the target and the Witch.

##### Rift – Ritual

The Witch opens a purplish rift of darkness and tentacles, swarming the level with a single type of Undead. These Undead do **not** count to the maximum number of Undead a single Defense Phase can summon. The Witch must concentrate to keep the rift open, so damage or control effects can interrupt it, such as the Golemancer grappling with the Life Blood ability. During the ritual, red magic circles appear around the targeted terrain and the Witch and a Banshee will sing until the ritual and rift is stopped (*ignoring rifts for too long is extremely dangerous*).

# Menu Layout

## Color Scheme

Needs information.

## Game Title Screen

Needs information.

## Legal Info

Needs information.

## Menu Screen

Needs information.

## Tutorial / Instructions Screen

Needs information. *The beginning of the first level will gradually introduce game mechanics to teach the player intuitively. For instance, players start with no attribute points, one weapon, and few abilities with most being passive.*

## Credits Screen

Needs information.

## Game Win Screen

Needs information.

## Game Over Screen

Needs information.

## Level Select Screen

Needs information. *In multiplayer, the group leader can select the highest unlocked level of any one person.*

# Game Layout

## Camera Setup

Needs information.

## Game Controls

Needs information.

## Game Modes

### Campaign

Progress normally through by achieving the win conditions until all Dark Zones are gone. Then progress to the level next. Elaborated more in [Gameplay](#_Gameplay).

### Conquest

Destroy the Undead’s Death Crystal while defending your Life Crystal. The level is split into even Light and Dark Zones with no inactive Dark Zones. During the Preparation Phase, the Undead can also build within their Dark Zones. During the timed Conquer Phase (similar to Defense Phase), the players try to claim Dark Zones while the Undead try to take Light Zones in the same manner. Only Zones that border enemy Zones can be taken. If the timer runs out before all Zones (including the Crystal) are taken or lost, the Undead retreat and the players are teleported to their respective Crystals, and the Preparation Phase begins again.

### Onslaught

The goal is to defend as long as possible. The furthest Dark Zones can never be taken, and inactive Dark Zones immediately become active when a Light Zone borders it. Players start with a large amount of attribute points and Shads. There is only one Preparation Phase. Once the Defense phase begins, it never ends until the players lose or quit the game. The Undead become more difficult to keep at bay as time progresses.

## Player Count

One, two, or three players can play at the same time.

## Gameplay Hours

Needs gameplay testing.

# Changelog

## October 8, 2014

* Added regular and italicized details in Combat, including movement and the fact that there's no weapon carry limit.
* Replaced nearly all first-person words with third-person words ("you" changed to "the player"). The rest are part of flavor text.
* Added thoughts on Vice and what could replace it in Attribute Point System. APS also has an idea on a choice of abilities when reaching an attribute line threshold and a contingency plan for when the player doesn't put any points in when the Preparation Phase ends.
* Renamed Tough to Toughness and Vital to Vital Spirit.
* Added explanation for having more shards spawn near the Dark Zones in Basics of Shards.
* Added the fact that preparations cost shards in Abilities.
* Added the fact that players are healed at the end of the Defense Phase in Defense.
* Added the fact of repairing structures in Preparation and the suggestion of having the Consecrator pay an upkeep to keep existing symbols from fading away after the Defense Phase ends and the following Preparation Phase ends.
* Added a new section under Abilities called Preparations Overview.
* Added facts to Onslaught.

## October 15, 2014

* Added some suggestions to Diehard, but is missing some notes from the preceding meeting.
* Added some suggestions to Death.
* Added some suggestions to Draugr armor color under Draugr.
* Added a phrase describing Vampire tactics under Vampire.
* Added some suggestions to Jiangshi.