

# Umbral Cycle

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# Introduction

## Game Summary

Umbral Cycle is a tower defense game, in which players have to defend their territory from waves of enemies by recruiting goblin minions and using shadow obelisks to their advantage. The shadows block enemy movement and can power up minions. After every wave, the obelisk shadows rotate and change the layout of the battlefield. Players have to plan their defense while keeping the movement of the shadows in mind.

## Inspiration

Gemcraft, Bloons TD, Kingdom Rush

## Player Experience

Players should have to plan their defense and upgrades while keeping the map's constant changes in mind.

Moving shadows uncover new paths for enemy waves and opportunities for powering up minions with runes. Players should have to balance between prioritizing the current wave and trying to set up for the next map layout changes.

## Platform

WebGL

## Development Software

Unity, Aseprite

## Genre

Singleplayer, Tower Defense, Strategy

# Concept

## Gameplay Overview

In every level, the player has to defeat waves of enemies before they reach the end of the screen. To do this, they can place their minions along the intersecting paths on the map. Minions attack automatically.

Additionally, the map features obelisks, which cast magical shadows on parts of the path, blocking enemies from progressing and forcing them to change routes. After every wave, the shadows shift, and the battlefield changes.

By applying runes to the obelisks, players can power up any minion that is under the obelisk's shadow. Runes change the damage type of a minion or increase stats like attack speed or range. Players have to think ahead to reap the benefits of the obelisk's power by positioning their minions in its shadow while also taking care not to get overrun via newly uncovered paths.

## Theme Interpretation - Shadows and Alchemy

Both parts of the theme are used in the aesthetics of the game to set the mood and to dress up classic tower defense mechanics.

The upgrade runes are mostly derived from the 4 basic elements in alchemy and are used to transmute minions into stronger versions of themselves. Runes can only be applied via the obelisk shadows.

The main character is a shadowy mage who controls a horde of goblins. They have to protect their mountain from the forces of light by manipulating the shadows with their runes.

## Game Mechanics

### Resources

- The player has a maximum amount of health for each level.
- "Essence" is earned by defeating enemies and can be used to buy items from the shop

## Mechanics

Mechanic	Description
Minions	<p>Players can spend Essence in the shop window to buy a range of minions with different behaviors. Once bought, players need to place the minion on a valid tile on the map.</p> <p>Every minion has a detection range. When an enemy wanders into that range, the minion will begin attacking. Attack values and projectile types differ between minions and can be further enhanced with upgrades.</p>
Runes	<p>Players can spend Essence in the shop window to buy runes that can be placed on obelisks around the map.</p> <p>Obelisks apply the rune and its upgrades to every minion, that is under the obelisk's shadow</p>
Sell Minions and Runes	<p>Minions and Runes can be sold to make space for new minions or to quickly gain essence in emergencies.</p>
Obelisks and Shadow	<p>Obelisks are placed around the map and cast a shadow area in one direction. Enemies cannot walk down paths, that are blocked by a shadow.</p> <p>After every wave or by other means, the direction of the shadow gets rotated by 90°.</p> <p>Obelisks can have runes applied to them that enhance minions, that are caught in the shadow.</p> <p>Obelisks have to apply the rune when:</p> <ul style="list-style-type: none"><li>- the shadow turns onto a minion</li><li>- a minion is placed into the shadow directly</li></ul> <p>Obelisks have to remove the rune when:</p> <ul style="list-style-type: none"><li>- the shadow turns away from a minion</li><li>- a minion in the shadow is sold</li></ul>

Mechanic	Description
	<ul style="list-style-type: none"> <li>- the rune on the obelisk is sold</li> </ul> <p>In the prototype of the game, shadows won't be able to overlap and apply more than one rune at once.</p>
Waves and Enemies	<p>A wave consists of enemies. Once all enemies in a wave have been defeated, the wave is over.</p> <p>A level consists of multiple waves. Once all waves have been defeated, the level is over.</p> <p>Enemies spawn at the start of the level path and move toward the end of the path. If an enemy reaches the end, they will apply an amount of damage to the player's health and then despawn.</p> <p>If an enemy is defeated by the player, the player gains Essence.</p> <p>There are different types of enemies with varying stats like health, speed, armor, or damage.</p>

## Controls

The game is mainly controlled via the mouse. Players can left-click to buy minions or runes and left-click again to place them on the map. Players can also right-click to sell them again. Some functions like pausing can be triggered via the keyboard. The game prototype will not have gamepad support.

# Art

## Overall Artstyle



The game will make use of pixel art with saturated flat colors.

- Towers will be represented as goblin minions standing on top of platforms. Enemies will be small humanoids or animals.
- The obelisks should look imposing and ancient.
- The environment should be simple, making the important game elements stand out more.

## Lighting

Even though the game uses shadows as a main mechanic, it won't make use of a lighting system to achieve the shadow effect. Instead, the shadows will be sprites that are overlaid on top of the other sprites.

## Audio

### Musik

The game will feature main menu music and, during a level, two different scores for combat and planning in between waves.

### Sound Effects

Sound effects for the most important mechanics, like placing towers and runes, will be taken from libraries. Applying sound effects to elements like projectiles or enemies could get overwhelming without proper audio management, so we will leave them out for the prototype.

# Prototype Development

## Minimum Viable Product

The minimum viable product should have the following features:

- Level logic (Waves, Win condition, Lose condition)
- Basic Enemy functionality (Enemy stats, pathfinding)
- UI for essential Level stats (Waves, Essence, etc.) as well as the shop window
- Minions can be bought and placed on the map
- Upgrades can be bought and applied to Minions
- Obelisk shadows block pathfinding and power up minions
- Obelisk shadows turn after x amount of waves
- Music, one loop
- Sound effects for the most important gameplay interactions

## Nice to have

If there is time left after the MVP has been achieved, the following features could be implemented:

- More complex enemy types (Torchbearers, Jumping Frog, etc.)
- Upgrades for obelisks
- Player spell system
- Dialog system for the tutorial and quips at the start and end of a level
- More sound effects for non-essential game elements
- Menu Music, Tutorial Music, Battle Music