Volrite

DESIGN DOCUMENT

By Scott Ponder for the 2025 Pirate Software Game Jam

Mockup Title

Introduction

Game Summary Pitch

Volrite is a tile-based resource management game in which the player explores and collects resources to explode a big bomb.

Inspiration

Minesweeper

Minesweeper provides a simple gaming experience where the player has to navigate through a field of mines. The player has to **problem-solve as they navigate through the field** until all mines are found.

Snake

Snake also provides a simple gaming experience. However, instead of navigating through a preset field, the **player has to navigate around their own obstacles**.

Other

Not a specific inspiration but games like Rain World and Hollow Knight have a mysterious vibe to them that makes the player curious and want to explore more of the world.

Player Experience

In a procedurally generated underground level, the player will navigate **through the darkness** and **seek a specified number of nodes** while avoiding hazards such as **lava, rocks, and cables**. The player will have to trek carefully and **pay attention to the indicators on the nodes** (which will provide information about what may be around the area).

NOTE: Decided to scrap the indicator and opt for a probing mechanism to help the player understand their surroundings better.

Platform

The game is developed to be released on Windows PC

Development Software

- Unity game engine
- Aseprite for graphics and UI

Genre

Singleplayer, resource management, exploration

Target Audience

With simple game mechanics and an easy-to-grasp goal, this game will be marketed to casual players who like exploration.
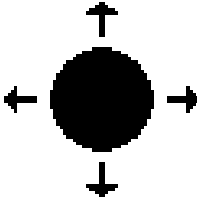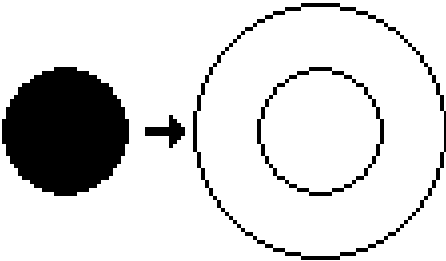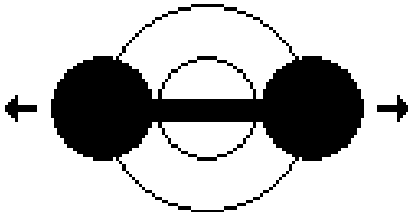
Concept

Gameplay overview

The player has an overhead view of the world, where they can interact with powered nodes. The player must control those nodes and navigate through the underground, where little light is given. While navigating, the player will be given indications that either there is another node nearby (indicator blinks blue), or there is a hazard nearby (indicator blinks red). With success, the player will be able to connect nodes together, adding to the total powered nodes. However, if the player touches a volatile hazard, then there will be a cascading effect on the nodes failing, subtracting from the total. The player's goal is to connect 50 nodes while avoiding these hazards.

Theme Interpretation (You Are The Weapon)

Weapon - The player must achieve the main objective in order to detonate a big bomb

While it would be easy to simply make the player a weapon that kills other enemies, I would rather take the roundabout perspective, where the player is a weapon by definition. A nuke is a weapon by definition but it will only detonate once and that is it. Thus, the game will focus on the idea that there is a similar type of bomb that will only detonate once (where the player has achieved the main objective, which is to collect nodes).

Primary Mechanics

Mechanic	Mockup
Controlling (powered) Probes While focusing on the (powered) probe, the player will be able to move left, right, up, and down.	
Connecting While controlling a (powered) probe, the player will be able to connect to unpowered central nodes. This will power up the central node and add to the total.	
Branching While focusing on a central node, the player will be able to create multiple branches to extend the search.	

Secondary Mechanics

Mechanic	Mockup
Blinking Indicator If a node is nearby a central (unpowered) node, then the node will blink with a blue hue. However, if a hazard (such as lava) is nearby, then the node will blink with a red hue. The indicator can blue both at the same time.	

Mechanic	Mockup
<u>Shatter Node</u> If the player moves a node into a volatile hazard, then the node will proceed to shatter. Then the nodes connecting will cascade in failure until all nodes are shattered.	

Art

Design

A retro style with a somewhat steampunk aesthetic. The palette needs to focus on the darkness of the underground while emphasizing the glow of the strange energy that emits from the bomb and nodes.

Sample sprite

Audio

Music

Simple tune to play in the background that is quiet and distill; only offering a bit of ambiance.

Sound Effects

Explosions, sparks, digging sounds, probing sounds, and machine sounds. Basically, industrial sound effects focused on digging, machinery, and energy.

Game Experience

UI

Computer terminal aesthetic. Given that the player is the bomb trying to detonate. The UI will emphasize this by using a terminal to display text at the bottom of the screen. For the gameplay feel, a minimap will be offered at the top of the screen.

Controls

Keyboard
  Arrow keys / WASD
  Enter
  Space
Mouse
  Left button

Gamepad
  Not supported yet

Development Timeline

MINIMUM VIABLE PRODUCT

#	Assignment	Type	Status	Finish By	Notes
1	Design Document	Other ▾	Finished ▾	Jan 26…	
2	Create node assets • Central node • Probe • Cable	Art ▾	Finished ▾	Jan 24…	May need to come back to the cable design. Base sprites are done for now.
3	Probe movement • Select probe to focus player controls • Move up/down/left/right on grid • Generate cable behind probe	Coding ▾	Finished ▾	Jan 24…	Need to tweak movement
4	World generation • Generate base terrain • Generate rock terrain • Generate lava lakes • Generate hidden zones	Coding ▾	Finished ▾	Jan 25…	Need to tweak and add more variation Could add green liquid for power?
5	World tileset • Base underground • Lava (animated) • Rocks	Art ▾	Finished ▾	Jan 25…	Very minimalistic
6	Central bomb • Base design • Power on animation • Explosion	Art ▾	Finished ▾	Jan 27…	Debating on heart pump animation

#	Assignment	Type	Status	Finish By	Notes
	animation				
7	Main menu • Title • Start • Settings	Coding ▾	Finished ▾	Jan 28…	Should at the very least let the play start the game and adjust game sfx/music
8	End game screen • Restart • Quit • Stats?	Coding ▾	Finished ▾	Jan 28…	Stats could be cool to see, but not needed.
9	Sound effects • Small explosion • Lava • Probing • Heartbeat? • Connecting nodes	Audio ▾	Finished ▾	Jan 29…	Lava is still needed. But most of the sounds are done.
10	Background ambience	Audio ▾	Finished ▾	Jan 29…	Keep simple
11	Cutscenes • Start • End	Coding ▾	Finished ▾	Jan 27…	Reusing cutscene script for ease of editing
12	Probing effect • Display information about the surroundings	Coding ▾	Scrapped ▾	Jan 27…	Scrapping the indicator idea and opting for an easier-to-understand probe effect that displays stats instead
13	Make WebGL build	Other ▾	Finished ▾	Jan 27…	Shaders may break ← Shaders did not break Alpha build done
14	Playtesting • Are the controls good?	Other ▾	In progress ▾	Jan 28…	

#	Assignment	Type	Status	Finish By	Notes
	• Is there something confusing about the game? • What could be added that could help with exploration? • Is it fun?				
18	SUBMIT	Other ▾	Finished ▾	Jan 27…	Create an Itch Page and upload

BEYOND (if ahead of schedule / extra time)

Add mysterious machines that would be found throughout the world	Other ▾	Finished ▾	To incentivize the player to explore, odd machines could be found throughout the map that the player could interact with
Green liquid	Other ▾	Not sta… ▾	
Settings Menu	Coding ▾	Finished ▾	