

Focused Void

DESIGN DOCUMENT

By PsychicAsh for the 2024 Pirate Software Game Jam (JULY)

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Introduction

DISCLAIMER

The images in this document (and this document ONLY) were created by chatgpt and their subscription services. As such, while I have the limited rights to the images for this very narrow limited purpose, I can not guarantee what they were trained on. These images are here for this document and will not be used in the game itself. It takes me a very long time to create any art assets and as these are representative of game elements, I do not have the time to devote to generating them by hand. All images in the GAME are created by me using aseprite or obtained through itch's asset page.

Game Summary Pitch

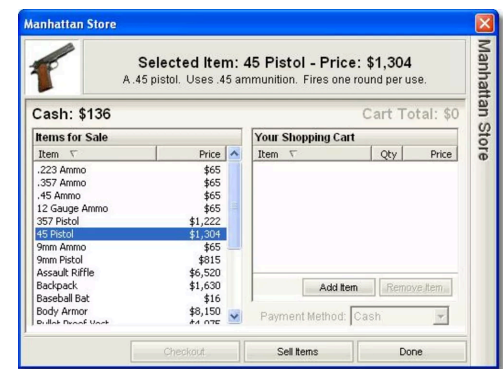
Focused Void is a strategy economics game where you fight the forces of nature to build your crystal empire. Charged Adjuineian Crystals are one of the most sought after materials. They're made from exposing regular crystals to the radiation of a black hole. When the

radiation passes through a focusing array, the crystals are placed at the focal point. After enough radiation, the crystals begin to glow and become bright. A ship must risk the dangers of being sucked into the black hole and escape before the crystals can become critical and overload. Escaping with charged crystals means wealth and riches. Enough for many would be celestial farmers to risk everything.

Inspiration

Drug Wars

During my highschool years, drug wars was very popular among the studnets. It provides the inspiration for the economic buy/sell aspect of the game.



Lunar Lander (1979 version)

This game was one of the OG games on the classroom computers back in the day. The frustration of fighting gravity to make a smooth landing on whatever flat ground you could find. This is the primary inspiration for the space navigation mechanic. Being able to control the thrusters and provide a stable holding pattern is key to growing the crystals and not getting sucked into the void.



Asteroids (1979 Arcade)



Both Asteroids and Lunar Lander had influence. Asteroids seems to have had more influence during development than the initial idea.

Player Experience

In a single screen console, the player navigates their ship through dangers reacting to computer detected inputs and crew feedback to avoid the black hole while keeping the ship steady. This requires paying close attention to the readout on the monitor while maintaining steady thrust to keep the ship steady.

Platform

The game is developed to be released on windows PC

Development Software

- Gamemaker Studio version 2024.06.2.162 for programming
- Aseprite for graphics and UI
- Sprite Mancer - Special Effects Graphics Program
- Bosca Ceoil music program
- jsfxr SFX

Genre

Singleplayer, space flight sim, casual

Target Audience

Casual gamer who enjoys a gameplay that can fit in a small window with infinite replayability.

Concept

Gameplay overview

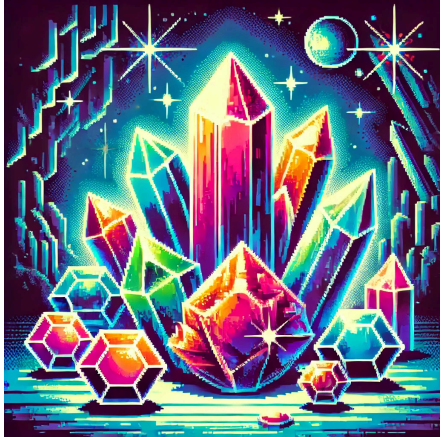
The player controls a spaceship. Their job is to keep the ship from crashing into the black hole while keeping it within a given radius in order to collect radiation to grow crystals on board the spaceship. As players progress, they may purchase additional upgrades that allow them additional automated functions to help tackle new challenges.

Theme Interpretation (Shadow Alchemy)

'Shadow Alchemy - The player using the dark energy of a black hole (shadow) to fundamentally change the molecular makeup of an object from common and worthless to extremely rare and priceless. A cosmic sorcerer's stone for those brave enough.

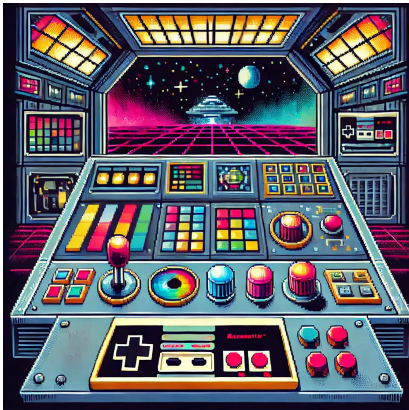
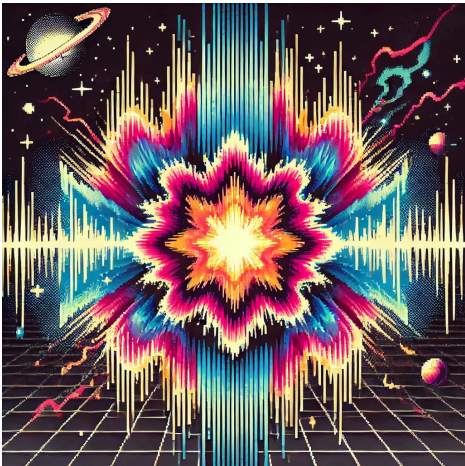
While at it's heart, this is a strategy game, the game's visual and story driven inspiration meld to form an adventure based on changing the ordinary to extraordinary using mystical powers that science can't quite explain yet.

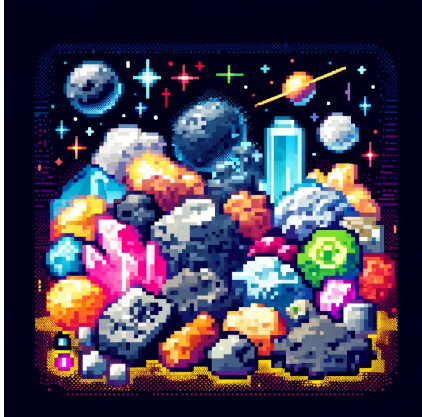
Primary Mechanics

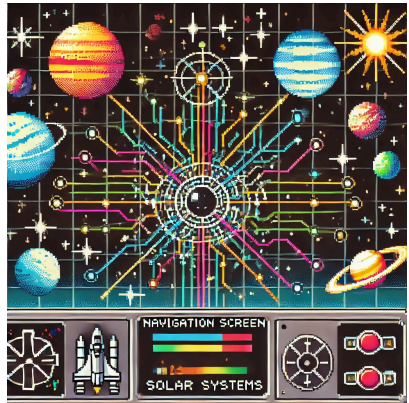
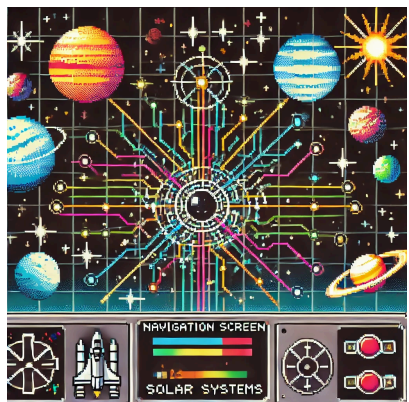
Mechanic	Animated Mockup (Art not necessarily final)
<u>Black Hole</u> A relentless force drawing the player ever closer. The closer you get, the stronger it becomes.	
<u>Crystals</u> A universal commodity able to be traded for any currency. The crystals are inert and useless until exposed to enough radiation from a black hole. Then a charged crystal is very valuable. Can overheat and explode, destroying the ship that houses it.	
<u>Basic Currency/Market</u> Selling crystals on the market to produce profit	

STRETCH GOALS - Game Mechanics

Mechanic	Animated Mockup (Art not necessarily final)
<u>Full Currency/Market</u> While the crystals can be sold for any currency, playing the market can prove lucrative. Holding some currencies that are lower value while selling others that are worth more can prove extremely profitable.	
<u>Fluctuating Gravity</u> Gravity that fluctuates while in flight. Number of fluctuations per minute changes variably, going up with difficulty	
<u>Asteroids</u> The player mass can walk freely over a hole as long as at least one cell is on a floor tile. If the entire mass is over the hole, the entire player mass dies.	

Mechanic	Animated Mockup (Art not necessarily final)
<u>Upgrades</u> Upgrades provide automated services that allow the user to focus on other priorities.	
<u>Drones</u> Automated robots that help with various tasks. Mining resources from local planets, debris interception, astroid mining, ship repair and much more.	
<u>Radiation</u> When a player is subjected to the same radiation the crystals are, this can pose a health risk to the players. Requires treatment quickly or players can use prophylactic measures or bolster defenses.	

Mechanic	Animated Mockup (Art not necessarily final)
<u>Pirates</u> Where there's money, there's someone willing to steal it. Criminals exist all over. Prepare to repel boarders	
<u>Automated Raw Materials</u> When making the trip to the black hole, might as well make the trip as profitable as possible. Send out automated drones to collect all manners of resources needed to commission specific high quality upgrades.	
<u>Government Bureaucracy</u> No wheel moves without greasing the axel of bureaucracy. The paper needs to be pushed and that isn't cheap. The powers that be require their cut and it's always off the top.	

Mechanic	Animated Mockup (Art not necessarily final)
<u>Alternate Solar Systems</u> With the venture, sometimes it becomes crowded and permits to harvest can become expensive. When the expense is too high, move to other black holes. Registered systems with low population of farmers are cheaper. Unregistered systems are free but the danger of pirates goes up without routine federation patrols.	
<u>Alternate Ships</u> Trade in that old used ship and purchase a new Velontro. Less than 20k light years. ACT NOW!!!! When you can't upgrade your ship any longer, purchase a better one. Trade it in or keep your old one and hire a crew to send out on automated missions.	

Mechanic	Animated Mockup (Art not necessarily final)
<u>Black Hole SubTypes</u> As science moves on, they've noticed that there are differences in the radiation of various types of black holes. These types can be put through more refined focal apparatus to create different types of charges in the crystal. Different types allow for different applications and thus different demand.	
<u>Crew Members</u> Various crew members assist with some tasks. While this counts as automation, most of what they do is reporting their systems and supporting their area. Engineer keeps the ship running under stress, repairing failures. Another crew member, scientist, monitors the crystal growth. If a crew member is damaged, their station is unmanned and doesn't update.	

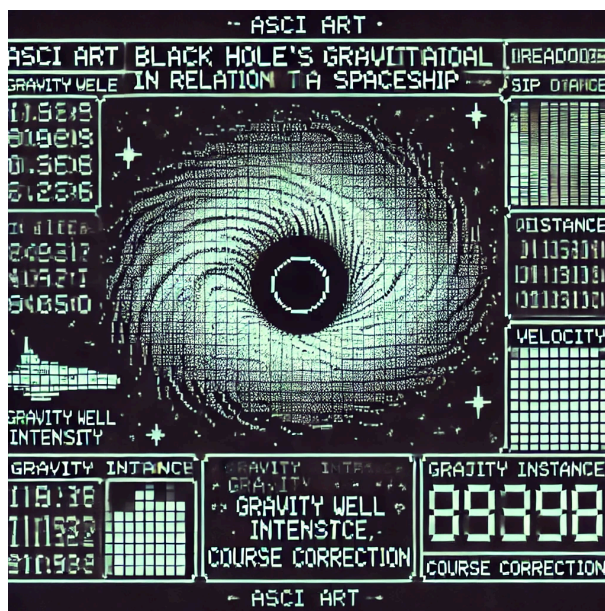
Art

Theme Interpretation

The visual theme combines muted colors with starkly sharp corners. Greens and Olives to imply a more military influence.

Design

A very **minimalistic** approach will go into the design of the game. The primary inspiration is Dope Wars/Drug Wars. This was a text game at heart. As such, the visual display will rely heavily on simple art and cassette futurism displays as well as vector graphics.



Not an actual depiction/level, merely an example of the what the navigation screen might look like

Audio

Music

To add to the overall them, I would like to add dynamic music. As the charge of the crystal grows, the pace/speed of the music will change. The closer it gets to detonation, the faster the music will play. This will be inversely affected by the distance at which the ship is from the edge of the black hole's effective radiation area. Different tracks will play for different meta events. One track for pirates, one for storms, etc. I would like multiple for each meta event and a random selection made for it but that is by far a stretch goal. The music will be done in a midi style in an attempt to emulate the old NES games.

Sound Effects

Various sfx will be added to signal player input as well as in game events such as crystals charging, cracking, exploding or ship engines, damage, metal strain etc. Synthesized blips, bloop, and whooshes are used in place of practical effects. Crew commands, status updates and the like will be played randomly as contextually appropriate.

Game Experience

UI

A computer console reminiscent of the old sub radar screens provide readouts of the ship and it's current orientation to the target. Very simplistic with a large canvas with which to include stretch goal features such as ship upgrades.

Controls

Keyboard

Mouse / Touchscreen

Keyboard wasd/arrow button selection via snap

Gamepad (Based on OS gamepad integration)

Dpad button selection

Thumbsticks

~~Customizable controls~~ (not implemented)

* Gamepad tested with xbox one controller on windows only

Development Timeline

MINIMUM VIABLE PRODUCT

#	Assignment	Type	Status	Finish By	Notes
1	Design Document	Other ▾	Finished ▾	Jul 31,...	As I constantly updated this list to reflect the current progress as new bugs/items were added or removed, this doc was not completely finished till the end.
2	Design Story board of player experience	Art ▾	Finished ▾	Jun 18...	Prototype for GDD is done
3	Main menu theme	Audio ▾	Finished ▾	Jun 19...	Sci-Fi 5 Loop from sci-fi music pack vol 1
4	UI / Main menu	Coding ▾	Finished ▾	Jun 19...	Button UI, screen transition, title screen
5	Level theme	Audio ▾	Finished ▾	Jun 19...	Should be more substantial and not annoying
6	Simple player movement (rotation/thrust)	Coding ▾	Finished ▾	Jun 20...	Moving ship around
7	Complex player movement (black hole gravity)	Coding ▾	Finished ▾	Jun 24...	Black hole gravity affect/safe zones/etc.
8	Implement Pause Feature	Coding ▾	Finished ▾	Jul 24,...	
9	Generate Crystal Stats randomly	Coding ▾	Finished ▾	Jul 27,...	

#	Assignment	Type	Status	Finish By	Notes
10	Fix Traveling back to market from black hole	Coding ▾	Finished ▾	Jul 29,...	
11	Market Menu	Coding ▾	Finished ▾	Jun 27...	Simple market interaction used as building a more robust market proved to be outside of scope reasonable for time left.
12	Crystal Interaction	Coding ▾	Finished ▾	Jun 26...	value adjustment / charge mechanic and stats
14	Special effects	Coding ▾	Finished ▾	Jun 25...	Blackhole animation/particles
15	Sound effects	Audio ▾	Finished ▾	Jun 25...	Player movement, UI interaction/black hole sfx
16	Pause menu Options	Coding ▾	Dropped ▾	Jun 26...	Access to the main menu or resetting the level. Realized this was not needed for the current features of the game
17	Assign Mouse Navigation on tutorial buttons	Coding ▾	Finished ▾	Jul 27,...	
18	Gamepad support	Coding ▾	Finished ▾	Jul 28,...	
19	Setup in game calendar (30 day cycle)	Coding ▾	Finished ▾	Jul 28,...	
20	Fix gravity scale by calendar day (in game)	Coding ▾	Finished ▾	Jul 28,...	

#	Assignment	Type	Status	Finish By	Notes
21	Blackhole variables	Coding ▾	Finished ▾	Jul 27,...	Fix blackhole variables to be random within a range based on calendar day
22	Fix game window to radar panel	Coding ▾	Finished ▾	Jul 25,...	
23	Create crystal monitor graphic	Art ▾	Finished ▾	Jul 27,...	
24	Connect crystal in inventory to crystal monitor	Coding ▾	Finished ▾	Jul 27,...	
24	Install market mechanic (buy sell)	Coding ▾	Finished ▾	Jul 29,...	
25	Create market interface	Art ▾	Stretch ▾	Jul 29,...	
26	Assign background music for market	Audio ▾	Finished ▾	Jul 29,...	To the space - in scifi music pack vol1 but slow it down
27	Create end game screens (win, loose, other)	Art ▾	Finished ▾	Jul 28,...	
28	Install end game screens	Coding ▾	Finished ▾	Jul 30,...	
29	Create transition animations between areas	Art ▾	Stretch ▾	Jul 30,...	

#	Assignment	Type	Status	Finish By	Notes
30	Install music/sfx for transitions	Art ▾	Stretch ▾	Jul 30,...	Use Astro Reverie from sci fi pack vol2 for music
31	Create tutorial	Coding ▾	Dropped ▾	Jul 30,...	The Tutorial attempts felt cumbersome and awkward and attempts to tighten felt hamfisted. Ultimately not enough time to make Tutorial seems smooth.
32	Any extra polish	Other ▾	Finished ▾	Jul 31,...	Create custom panel art to match crystal panel
33	SUBMIT	Other ▾	Finished ▾	Jul 31,...	Create Itch Page and upload

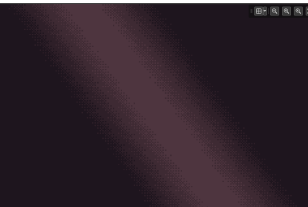
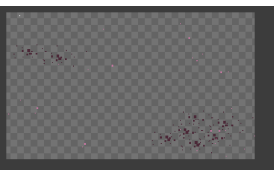
BEYOND (if ahead of schedule / extra time)

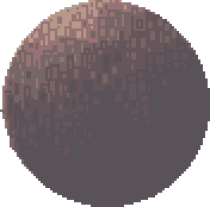
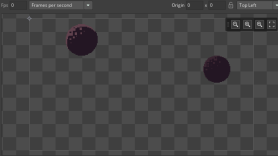
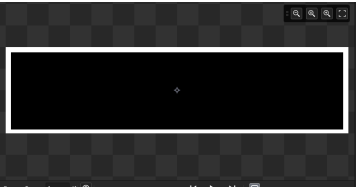
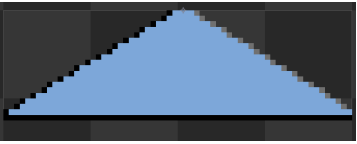
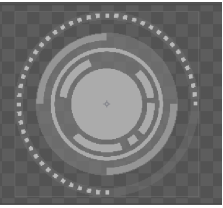
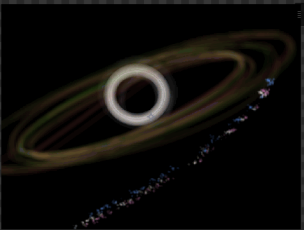
Upgrades for default ship	Other ▾	Stretch ▾	Add market place purchases for upgrading ship
New Ships	Other ▾	Stretch ▾	Limit default ship to number of upgrades and various other values, allow ship purchases for upgradable ships
Save game function	Coding ▾	Stretch ▾	New game mode for extended play
Fluctuating Black hole effects	Other ▾	Stretch ▾	Fluctuating Black hole effects based on set limits to provide a moving target based on skill and length in game
Drones	Other ▾	Stretch ▾	One possible upgrade, drones to help deal with exterior issues
Hull Integrity	Other ▾	Stretch ▾	A hull strength system, drones can repair, some flight paths impart more damage than others
Flush out Radiation Mechanic	Other ▾	Stretch ▾	
Pirates	Other ▾	Stretch ▾	
Raw Resources from nearby planets	Other ▾	Stretch ▾	
Galaxy travel	Other ▾	Stretch ▾	
BH Subtypes	Other ▾	Stretch ▾	
Crystal Subtypes	Other ▾	Stretch ▾	

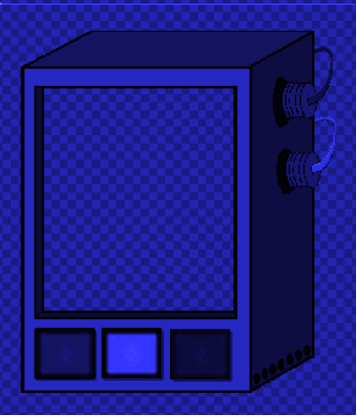
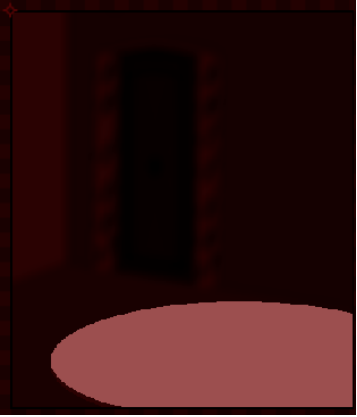
Appendix A Asset Audit:

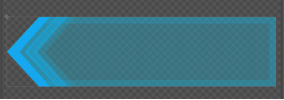
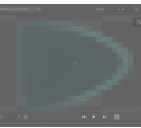
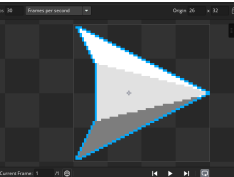
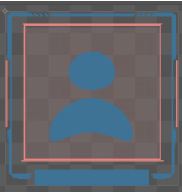
Appendix provides a breakdown of all assets in the game and their sources.

Assets and their sources in the game. Images may be augmented here as not to provide usable replications of the artists original work. If commercially available product, link provided in footnotes.

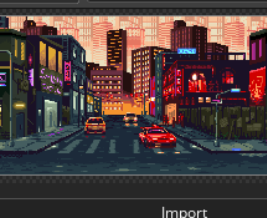
Original Asset	Source	In Game use
	Created by me	Title Text on Main Menu
	Created by me	Title Text on Main menu
	Created by me	Title Text on Main Menu
	Venus Rising ^[2]	Font for base text in game
	parallax-space-background.png ^[1]	Background on Main Menu
	parallax-space-stars.png ^[1]	Background on Main Menu

	parallax-space-big-planet.png ^[1]	Background on Main Menu
	parallax-space-far-planets.png ^[1]	Background on Main Menu
	Created by me	Base image for menu buttons
	Created by me	Used as radar screen indicator
	Created by me, base image below (001.png)	Particle System based on commercial image
	001.png ^[3]	Used as basis for black hole particle system
	Created by me	Used as end screen for bh ending (ship destroyed by bh)

	Created by me	Used for the crystal monitor in main game screen
	Created by me	Used for background in crystal monitor
Transparent glass	Created by me	Used for crystal monitor and base image reused for glass in bar end screen graphic
	crystal_5_32x32_12f_20d.png ^[4]	Used as crystal basis, grayscale and color manipulation through GM systems
	Created by me	Used as “good” ending card

	MainPanel01.png ^[5]	Used as monitor framework for main radar screen
	008.png ^[3]	Used as button background for options in conversation
	Slider02.png ^[5]	Used as selection indicator for options in conversation
	Created by me	Used as Ship icon for the radar screen
	Created by me	Used as the base image for the scanlines. Scanline effect achieved through code. Used Tutorial as approach to shaders (Crt effect - scanlines [GameMaker Studio 2 Vfx] (youtube.com))
	005.png ^[3]	Used as background for portraits during conversations

	006.png ^[3]	Used as textbox during text conversations on screen (actual textbox system created using scripts from (1) GameMaker Dialogue System Part 1 - Setup - YouTube)
 (sound)	Retro Ambience 02.wav ^[6]	Sound used for black hole ambience
 (sound)	Click_1.wav ^[7]	Used as button mouseover
 (sound)	Retro Alarm 02.wav ^[6]	Used as a warning klaxon
 (sound)	Retro Electric LoFi 01.wav ^[6]	Used as ship thrust

 (sound)	Sci-Fi 8 Loop.ogg ^[8] , 4 - Celestial Echoes (Loop).oog ^[9] , 5 - Stellar Drift (Loop).oog ^[9] , 6 - Orbital Echoes (Loop).oog ^[9]	Musical themes for Main gameplay. Randomly chosen
Logo font	Magnisa Sans Font ^[10]	Font for main logo on splash screen
	city.png ^[11]	Market background

Footnotes:

[1] [Space Backgrounds by ansimuz \(itch.io\)](#) - free use for commercial projects

[2] [Venus Rising - comments | dafont.com](#) - FONT with free commercial use

[3] [Futuristic Vector UI Elements by ilkaytobello \(itch.io\)](#) (No license listed but created gives permission in the comments, free to use in projects)

[4] [Free Glowing Crystal - Animated Pixel Art by Frakassets \(itch.io\)](#) - creative commons to use in game or as a base

[5] [Assets: Free UI Minimalism SciFi by Wenrexa \(itch.io\)](#) (No license listed but states in description free to use in commercial or personal projects)

[6] [200 Free SFX by Kronbits \(itch.io\)](#) - free for commercial use by description

- [7] [Free SCI-Fi UI Sound Effects Pack by hoveaudio \(itch.io\)](#) (No license listed but states in description that is free to use in commercial products)
- [8] [Free Sci-Fi Game Music Pack by alkakrab \(itch.io\)](#) - free to use for commercial projects by description
- [9] [Free Sci-Fi Music Pack Vol. 2 by alkakrab \(itch.io\)](#) - free to use for commercial projects by descriptions
- [10] [Magnisa Sans Font | dafont.com](#) - free to use for commercial projects
- [11] [Synth Cities Environment by ansimuz \(itch.io\)](#) - free to use for commercial projects