



Space Raiders

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Game Overview

By James Keogh

Game Concept:

Space faring pirates board spaceships, zapping the crew, scrambling to find loot to get as rich as possible and meet their quota within a limited time before law enforcement comes to stop them! Failing to meet the quota after pillaging 3 ships results in you proving to be a bad space pirate and being forced to walk the plank! A modernised interpretation of the classic game Space Invaders while also taking inspiration from Xenophobia.

Target Audience:

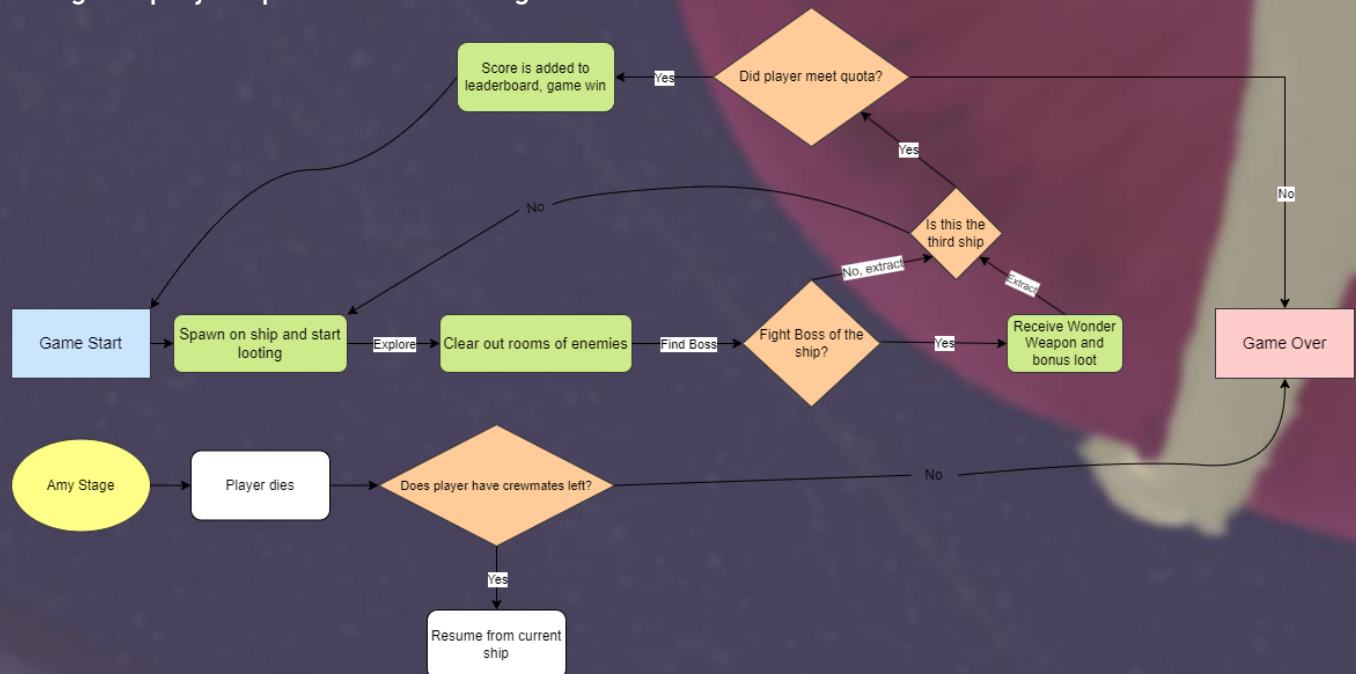
Our target audience is gamers who love retro shooters such as Contra and are also fans of roguelikes. The target age range for our audience is mid-teens and up.

Genres:

Space Raiders situates itself in the Action, Roguelike, Extraction Shooter & Cooperative Shooter genres.

Game Flow:

The game has the player pick between an objective based mode or an endless mode. The gameplay loop for both modes go as follows:



Look and Feel:

The game has a very futuristic look and feel with it being set in the space age, in the human ships but especially on the Industrial ships, with clashing elements of biology from the Infestation of alien creatures on the Infested ships. The game will feel hectic and claustrophobic as you go from room to room clearing out the enemies while under a time limit, scrambling to meet your quota.

Gameplay

By James Keogh

Objectives:

The main objective of the game is to make the provided quota. In order to do so, players need to loot the ships boarded within a time limit before they are pulled out. Players have 3 ships to make a quota. The player should also be searching the ship to find better weapons and equipment.

Progression:

The progression of the game is linear with better weapons, higher value loot and tougher enemies appearing on later ships, with later ships having more objectives to complete to earn more score such as an alien captain boss fight or restoring power to the ship to gain access to other sections to loot.

Play Flow:

The players go from room to room collecting loot and clearing out enemies while searching for better weapons and gear, they will also have to play to their strengths as they will have good and bad traits that are tied to their player character.

Mission/Challenge Structure:

The missions follow the formula of the player boarding ships and looting as they go, fighting through enemies along the way, there may be armouries to hack into if you are the engineer for wonder weapons or med bays on the ship to top up on health if the player needs to. There will also be an optional boss the player can fight in the later ships that will net the players a high amount of loot and a wonder weapon if they are unable to hack open the armouries if they aren't playing as the engineer class.

Game Options:

By Declan Phillips

Settings:

Players can avail from a variety of settings. There will be three categories for settings: controls, video, audio and accessibility. Most of the settings found under these categories are standard in many games. Controls contain settings that allow players to change their sensitivity as well changing their button layout. Video will house settings relating to the graphics, rendering and visual display of the game such as aspect ratio

and brightness. Audio settings will allow players to fine tune the volume of specific types of audios like music or effects. Accessibility offers players settings that will make their experience of the game easier. There will be heavy emphasis on accessibility settings in order to accommodate all types of players.

Game Modes:

Space Raiders features 2 main game modes – Random and Custom – and 2 sub game modes – Default and Endless. The main difference between the two sub modes is how the quota works. For Default, players have to make enough points within 3 ships/rounds to make the quota.

If they do not reach this quota on the third ship, the run is over, and players have to start again – reaching quota is a win/lose condition for players in the default game mode. For the Endless mode reaching quota is not a win/lose condition. Instead, reaching the quota rewards players with bonus points.

Random:

In Random mode, each player is given 4 random crewmates at the start of a run. These crewmates can be of any of the 5 classes. Players can be given multiple crewmates of the same class. Only one crewmate can be captain out of all the players. Each crewmate will have randomised proficiencies, a randomised starting nerve level and a randomised trait.

Before each round, players pick one of their crewmates to enter the ship with. If that crewmate dies while onboard the ship, the player cannot pick that crewmate again and any items they have picked up during the round are lost. If that crewmate successfully evacs, they keep whatever gun they have equipped on the character they extracted with, their health and nerves remain the same value as when they evac-ed.

Every round that the crewmate is not picked, these two values (health and nerves) will slowly regenerate which will encourage players to vary their crewmate selection. The game ends when players have no more crewmates left. For every quota made, players will each gain a new crewmate if they have less than 4 crewmates.

Custom:

In Custom mode, players will get much more agency over the character they are playing as. At the start of a run, players will get to choose which class they are and what traits they have. Unlike the Random game mode, proficiencies are not randomised but tied to the class. This will be balanced with a point-buy system with certain traits having a cost attributed to them to attach them to their character, however if the player wants access to some of the more powerful traits they must tack on bad traits to their character in order to afford them as adding negative traits to your character provides more points to spend on positive traits.

Screen Flow:

By Declan Phillips

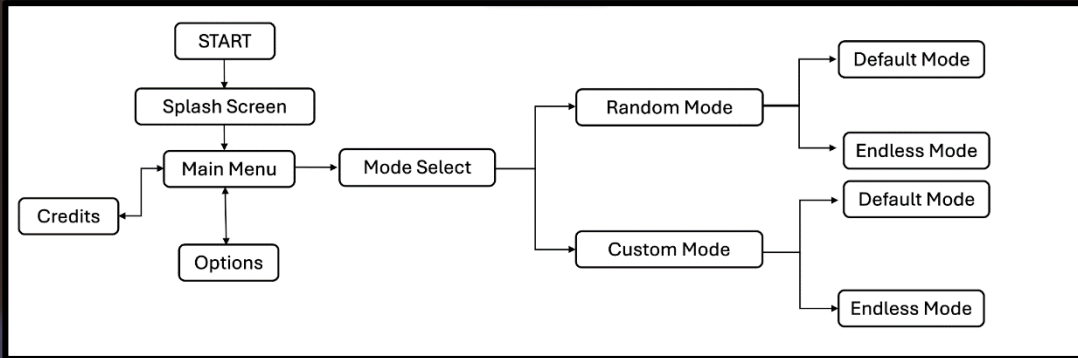


Fig.1. Screen flow - Menus.

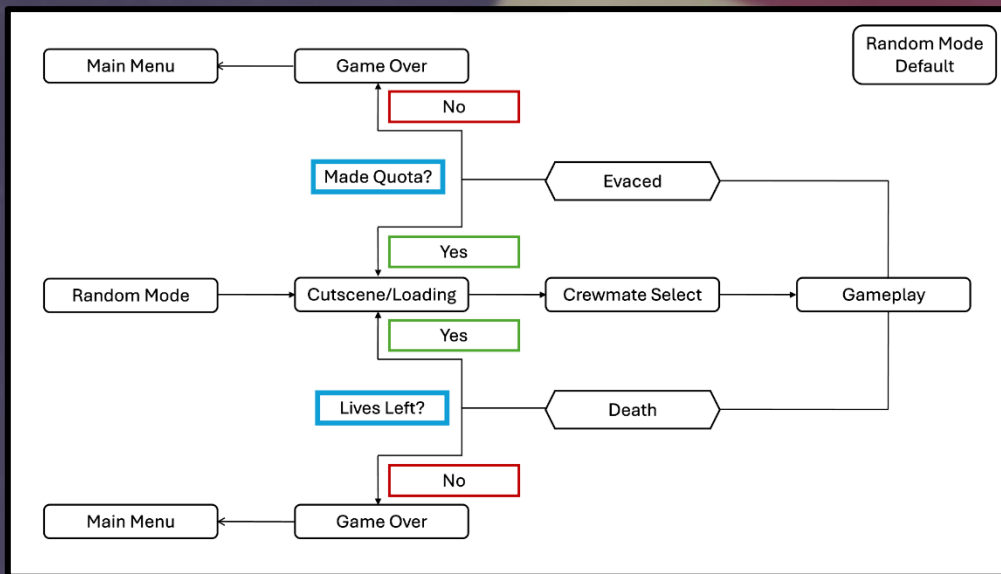


Fig.2. Screen flow – Random Mode: Default.

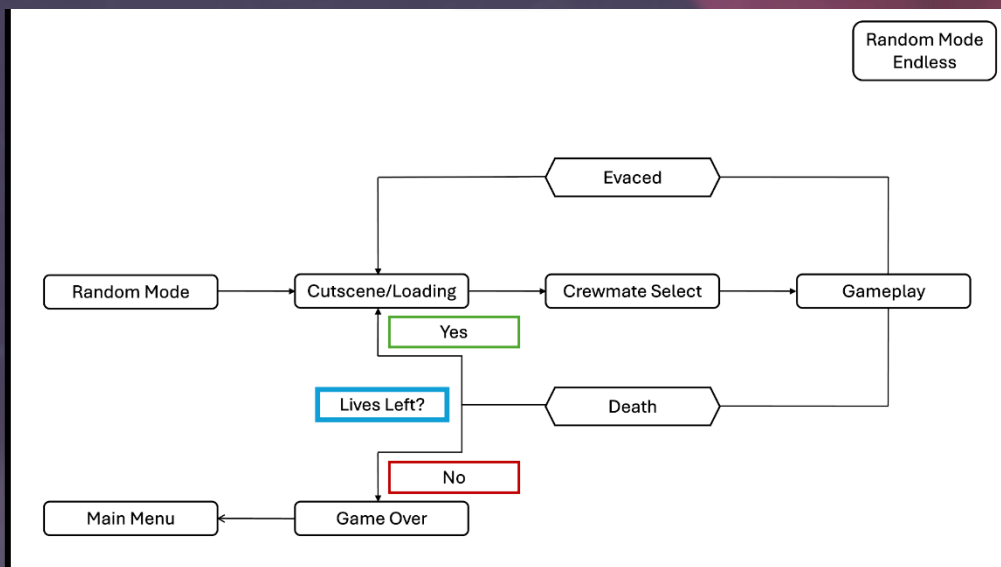


Fig.3. Screen flow – Random Mode: Endless.

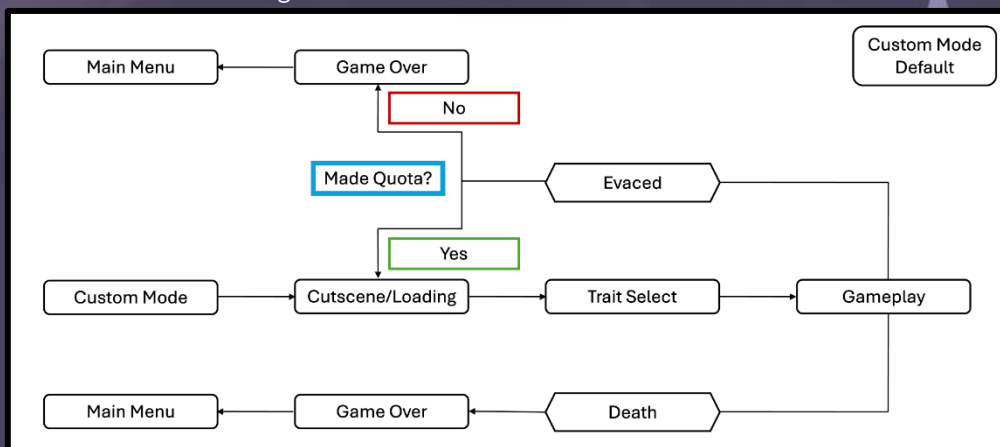


Fig.4. Screen flow – Custom Mode: Default.

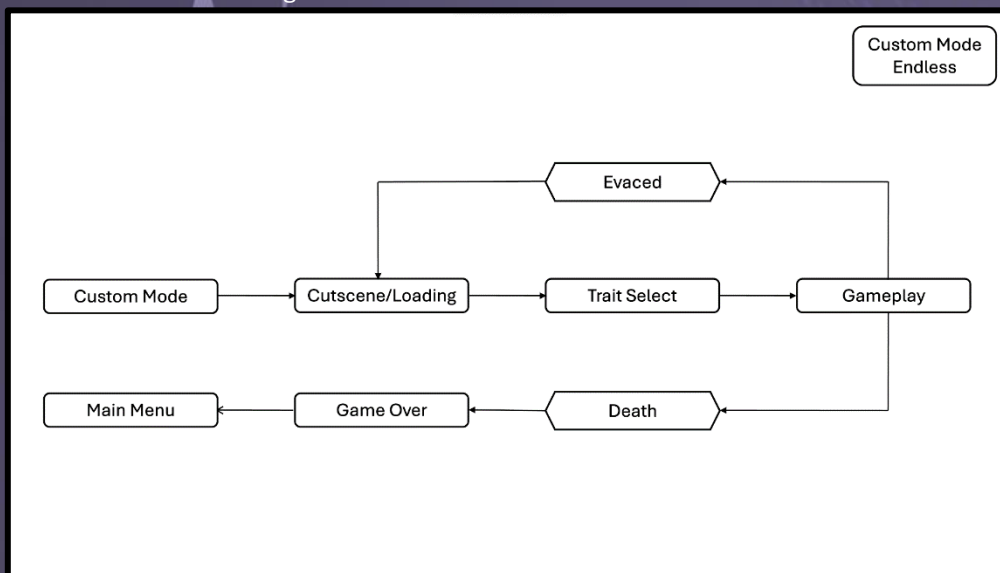


Fig.5. Screen flow – Custom Mode: Endless.

Mechanics

By Declan Phillips

Rules:

The rules listed will follow after the character selection phase as the rules have been explained above – see [Game Modes](#). The rest of the Mechanics section goes into more detail.

Explicit:

- Players spawn in a random room on a ship.
- Player can move horizontally, can move briefly vertically via jumping and can change their position on the z-axis via switching lanes.
- Players can pick up certain items: weapon items, healing items and junk items.
- These items spawn in rooms. Certain items can only spawn in certain rooms. These items have different chances to spawn.
- Enemies can spawn in rooms. Enemies follow the same lane system as players. The types of enemies that spawn depends on the type of level and the room.
- Doors connect rooms. These doors open up once a player gets near. Some doors are locked and require a terminal to be hacked before they can open. Doors can sometimes malfunction, closing shut and requiring players to interact with them to open again.
- Terminals can spawn in rooms. Terminals can be locked requiring players to hack them. Hacking involves a minigame. Interacting with terminals has different outcomes depending on the terminal.
- Players can evac from a level. This involves finding the escape pods. Escape pods are found in the escape pods room which spawns in a random location on the ship.
- To get access to the escape pods players must first hack the terminal nearby.
- If a player dies, they lose all the items they picked up. They cannot play again until the round is over.

Implicit:

- Be cooperative with your fellow teammates.
- Do not pirate the game.

Economy:

The economy of the game is score referred to as credits in game. Each junk item in the game has a value. Items with a lower value are more common and vice versa. At the end of a successful round, each item that evac-ed players collected on the ship is converted into score. Reaching a certain amount of score within 3 ships is required in order to progress. This is referred to as the quota. If players do not make this quota, then the run is over, and players must start a new a run. Every time a quota is made, a new higher quota is introduced.

Camera:

As Space Raiders is a multiplayer game, there are multiple cameras being displayed at once (each corresponding to a different player). The cameras frame the entire room that their player is in. The roof must always be visible. Bigger rooms will have the camera positioned further back. The cameras are static and only move when a player enters another room.

Character Movement:

While the game takes place in 3D space, players only have a full range of motion on the x-axis. Players have limited movement on the y and z axes. Players can jump, offering a brief change along the y-axis. Players can still move along the x-axis while jumping, however, they cannot change their position on the z-axis. Players' movement on the z-axis behaves more like grid-based movement. Players can situate themselves on one of three lanes; Front, Middle and Back. Players can alter their position on the z-axis using the trigger buttons.

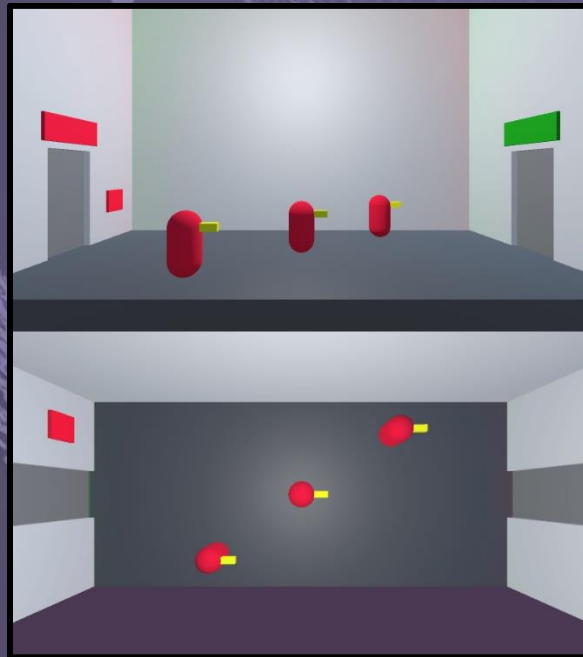


Fig.1. Character Movement – Lane Showcase.

Combat:

Players can aim in a near 360° arc. Players have access to various types of weaponry that falls into two categories: projectile and melee. These weapons dictate how players approach combat. A player's efficiency with their weapon depends on their character's weapon proficiency. The types of enemy players face also alters combat. Lists of both weapons and enemies can be found here.

Weapons:

Projectile weapons are any weapons that fire a projectile out when the player attacks. Projectile weapons consist of two different categories – Single Fire and Auto Fire. Single Fire are weapons that only fire once after the attack button is pressed. Auto Fire weapons fire as long as the attack button is held in. Projectile weapons vary in range with some weapons only performing well in close range and others requiring a longer range to make greater use of. Projectile weapons use ammunition. These weapons have both a magazine capacity and a reserve capacity. Players cannot attack if their weapon has no ammo. In order to attack again, they must either drop their weapon or find ammo for it. Ammo can be found in the form of ammo crates which supplies ammo to any kind of weapon or alternatively they can get ammo from a gun of the same type found on the ground. The accuracy of the projectile depends on the weapon proficiency of the character the player is playing as. The lower the proficiency the more spread there is.

Melee weapons are close range meaning players will have to get close in order to make use of them. This makes them less versatile than projectile weapons and limits the types of enemies they can kill (for example roof-based enemies). However, melee weapons do not require ammunition which can make them more reliable. Melee weapons are the most common weapons players can find. While certain melee weapons can make great effect against enemies, melee weapons are typically last resorts for players who run out of ammo. There are two types of melee weapons – Swing and Thrust. Swing weapons are weapons that are swung in an arc, any enemy caught in this arc is dealt damage. Thrust weapons are thrust forward in a single line, any enemy caught in this line has damage dealt to it. Thrust weapons typically do more damage than Swing weapons to make up for their shorter area of effect. Melee weapons are unaffected by a player's weapon proficiency.

Enemies:

There are variety of enemies in the game which require different approaches to combat for players. There are 6 levels of engagement which an enemy can have access to. Level 1 is floor, level 2 is crouching, level 3 is standing, level 4 is jumping, level 5 is flying, level 6 is roof. Enemies can be on multiple levels of engagement and can alternate between levels. Enemies follow the same lane system as players. Some enemies can switch lanes while others cannot. Ranged attacks from enemies are confined to the lane that the enemy is in, for example, an enemy in the middle lane cannot shoot a projectile to the back lane, only in the middle lane. There are three enemy types in the game each offering different challenges to players.

Mechs are found on industrial ships. They are rigid in their movement, not being able to switch lanes or alternate between their levels of engagement without a lengthy telegraph. Once a mech is aggro-ed, it will always march towards the players. Mechs are beefy enemies, often featuring impenetrable armour. However, mechs also have a weak spot, typically in the form of a fuel tank or power core, that deals bonus damage to them. Defeating a mech requires players to use their mobility to outmanoeuvre the more rigid mechs.

Humanoids are found on civ ships. A humanoid's movement is dynamic, switching lanes and alternating between levels of engagement quickly and frequently. Humanoids are also quite

intelligent; they won't just march towards players. They will take cover and can even retreat if they are losing the battle. Humanoids carry the same weapons that players can use. If a humanoid dies, they will drop their weapon for players to pick up.

Infested can be found on infested ships. Infested can spawn with other types of enemies on the same ship. They will slowly evolve over time; initially, starting off weak with limited movement and eventually evolving into a powerful enemy with dynamic movement.

Items:

[List of Items](#)

Items are objects that can be picked up by players. Items can either be junk, aid or equipment. Equipment are items that can be used such as weapons. Players can only hold one weapon at a time. Picking up a weapon drops the current weapon the player is holding. Aid items heal the player when picked up. These can either heal the player instantly or over a period of time. Aid items can also provide temporary buffs to nerves and proficiencies. Junk are items that cannot be used, they are instead stored in the player's inventory. If the player successfully evac, the junk items they have collected are sold and converted into points. If a player dies, the junk they have collected is lost. Junk and equipment can be found in random spots scattered throughout the ships. While the item spawned is random, there is a higher chance that the item relates to the room it is in. For example, junk has a higher chance of spawning in a storage room and weapons have a significantly higher chance of spawning in an armoury room.

Actions:

Players can perform actions when nearby certain objects by pressing the interact button. Actions can be divided into two categories: Passive and Active. Passive actions are actions are performed once the button is pressed. These actions include:

- Picking up an item
- Accessing a terminal – performed when near unlocked terminals. Terminals have a singular function. This function depends on the type of terminal it is. What function a terminal has is indicated by an icon on the terminal screen. These functions include; unlocking a door, opening a map of the floor, unlocking the escape pods, initiating an airlock and causing a vacuum in the next room killing all humans but not mechs within that room, and causing a frenzy protocol on mechs in the next room.
- Entering an escape pod – performed when near an escape pod.
- High fiving your teammate – performed next to a teammate when not in combat or near other interactable objects.

Active actions require additional input from the players. These types of actions would include:

- Hacking – performed on terminals. Requires players to complete Dredge style minigame. This minigame involves a timer and a wheel. When the timer is finished the action is completed. The wheel contains both a negative and a positive section as well as a handle that slowly rotates around the wheel. The timer can be decreased by passing a skill check: pressing the interact button when the handle is in the positive section. If the player presses the interact button and the handle is in the negative section, the timer increases. The players proficiency in hacking dictates how fast the handle moves as well as how big the positive areas are. Hacking a terminal gives players access to that terminal.



Fig.1. Actions – Hacking minigame showcase (From Dredge, 2023).

- Jimmying – performed on malfunctioned doors. Requires players to mash the interact button. Doors can spawn malfunctioned and become malfunctioned. Malfunction doors will not automatically open when players get near like regular doors. Players must first jimmy them open.



Fig.2. Actions – Jimmying minigame showcase (From WWE2K22, 2022).

- Healing – performed at First Aid Station. Requires players to hold down the interact button in order to heal them. First aid machines behave like the first aid stations in Half Life. They heal players for as much as they hold down the button. They also only have a limited amount of healing.



Fig.3. Actions – First Aid Station showcase (From Half Life, 1997).

There are class specific actions that can be performed using the ability button. These include initiating an evac as The Captain, opening certain sealed doors as The Engineer, equipping the heal gun as The Doctor and opening a map as The Navigator. More details can be found in the [next section](#) of this document.

Characters & Enemies

By Luna Henry

Playable Classes:

Captain:

Personality: Brave, commanding, and confident

Appearance: Dressed in a more official looking, uniform styled spacesuit and a helmet

Abilities: Can evac at any time. Must hold down ability button for a couple of seconds in order to begin evac. All players will be evac-ed.

Engineer:

Personality: Reserved, but self-assured and a good worker

Appearance: Dressed in a pair of stained, chunky looking overalls over a thick spacesuit, with a helmet that almost resembles a welding mask

Abilities: Can hack open certain doors (sealed doors) that other characters cannot. These doors often lead into areas with good loot like an armoury.

Doctor:

Personality: Perfectly competent and not shaken easily, though slightly jaded

Appearance: Wearing a long white spacesuit resembling a lab coat with a green plus on either arm and a helmet

Abilities: Has a healing gun. The healing gun shoots out a beam (much like Team Fortress 2) that heals players on hit. The gun has 100 ammo which equals 100 healing points to give out to other players. The ammo resets every round. If the beam hits a humanoid enemy, it will heal them. If it hits a mech enemy, it will not do anything. If it hits an infested enemy, it will slightly damage them.

Navigator:

Personality: Social, though unused to more extreme sights

Appearance: Has on a helmet with a headset built in and a large backpack housing a radio satellite with a satellite dish sticking out, with a digital map in one of the suit's pockets

Abilities: Has access to a map of the floor they are on. If they gain access to map terminal, they will be given access to a map of the entire ship.

The Crewmate:

Personality: Average in both nerve and proficiency

Appearance: Wearing a sleek, simple spacesuit and a visor helmet which obscures the face

Abilities: N/A

Proficiencies:

Proficiencies are attributes that each character has. Proficiencies are randomised. There are three types of proficiencies:

Weapon Proficiency - Affects the characters precision with projectile weapons. Affects the speed of a melee attack.

Hacking Proficiency - Affects the hacking minigame. High hacking makes the handle move really slow as well as making the positive areas bigger and vice versa.

Movement Proficiency - Affects how fast the player moves. Affects horizontal movement as well as how fast they can switch lanes.

Nerves:

Players have a nerves bar which ranges from afraid to confident. Being on the lower end of this scale reduces a player's proficiency in various aspects, including accuracy and tasks like hacking. On the other hand, being on the higher end of this scale increases proficiency, and improves a character's ability to carry out actions. A player's nerves are affected by their actions and the state of the room around them.

Negative actions:

- Taking damage
- Being in a room full of enemies
- Nearing the time for self-destruct

Positive actions:

- Killing enemies
- Killing a room full of enemies
- Looting valuable items

Traits:

Clingy:

- Having other players nearby greatly improves the player's confidence and proficiency
- Being by themself significantly worsens the player's proficiency

Introverted:

- Being alone greatly improves the player's confidence and proficiency
- Being surrounded by others significantly worsens the player's proficiency

Enemies:

More details of enemies found [here](#)

Mechs:

Turret

- Appearance: A ceiling mounted gun with a red light on the side.
- Behaviour: The gun swivels up and down in a 180-degree angle to target the whole room; when a player comes in, it attacks them wherever they are in the room, including different lanes, until it is destroyed.
- Health & Damage: Relatively weak, deals light damage

Security Bot

- Appearance: A bulky robot on treadmill wheels with a long horizontal light resembling an eye near the top of its head and a small fuel tank protruding from its back, wielding a laser gun.

Behaviour: Security Bots target players and shoot them while strafing back and forth to avoid attacks. They take moderate damage, and shooting the fuel tank at the back results in a crit.

Health & Damage: Decent health, deals light-moderate damage

Bulldozer

Appearance: A small, stubby robot on treadmill wheels with a long horizontal light resembling an eye near the top, holding a large metal shield in front of it with a small fuel tank protruding from the back.

Behaviour: Bulldozers charge into players to hit them with their shield, before backing up and trying again. The shield is impervious to all attacks, but the Bulldozer itself takes moderate damage, and hitting the fuel tank at the back results in a crit.

Health & Damage: Decent health, deals moderate damage

Forklift

Appearance: A tall, bulky robot on treadmill wheels with a long horizontal light resembling an eye near the top, with a large two-pronged claw at the front and a small fuel tank protruding from the back.

Behaviour: Forklifts charge at players ahead of them and grab one if close enough, picking them up and rendering them unable to move; it then moves underneath a large fan on the ceiling and begins to raise the player up into it to kill them. The player is still able to shoot the Forklift while this is happening, and if it takes enough damage it will get stunned and release them; alternatively, another player can shoot its fuel tank at the back while it has caught one player, causing a crit.

Health & Damage: Tanky, fan deals rapid hits of moderate damage

Pitbox

Appearance: A thin robot on treadmill wheels with a large fuel tank on its back, wielding a thin tube in place of an arm which it uses to collect fuel from stations.

Behaviour: Pitboxes fill up their large tank with fuel from provided fuel stations in the room and distribute it to Mechs that are low on health to heal them. They take moderate damage from the front, but shooting the fuel tank on their back results in a crit as it explodes, dealing a good amount of damage to the Pitbox and other Mechs nearby.

Health & Damage: Decent health, deals weak contact damage

Humanoids:

Grunt

Appearance: A thin humanoid in a dark space suit and helmet, wielding a basic pistol.

Behaviour: Grunts strafe back and forth while shooting at the player; they stray closer to the player when there are more Humanoids in the room with them, but are inclined to inch closer to the exit on their side when the room is cleared out, and will leave the room once close enough to the door to try and group up with more Humanoids.

Health & Damage: Relatively weak, deals light-moderate damage

Gunner

Appearance: A heavy-set humanoid in a dark suit and helmet, carrying a large machine gun.

Behaviour: Gunners move slowly and shoot at players who enter the room. They don't switch targets until the person they're shooting at has died or gotten away.
Health & Damage: Tanky, deals moderate damage

Surgeon

Appearance: A tall lanky humanoid wearing a dark suit and helmet with a green cross on the arm.

Behaviour: Surgeons wield a healing gun which, when shot at their allies, produces a healing beam that restores health to fellow Humanoids. If a player intercepts this beam, it will restore a small amount of health to them.

Health & Damage: Moderate health, does not deal damage

First Mate

Appearance: A humanoid wearing a slightly lighter dark suit and a helmet with a badge on the chest.

Behaviour: First Mates attack with a gun but use the player's movements the most out of the Humanoids, crouching and switching lanes to avoid attacks like the players do.

Health & Damage: Moderate health, deals moderate damage

Captain

Appearance: A tall, well-built humanoid with a long, dark, fancy coat and a helmet.

Behaviour: Captains can only be found at the heads of ships, with one on each ship. They attack with a combination of shooting attacks and melee attacks for closer players and will swap lanes to pursue players as well.

Health & Damage: Boss health, deals moderate damage

Infested:

Egg

Appearance: A large, green, veiny egg.

Behaviour: Eggs lie on the ground, unmoving, until they eventually hatch and release a Tadpole. The eggs themselves cannot damage the player and are functionally harmless until they start to hatch.

Health & Damage: Relatively weak, deal no damage

Tadpole

Appearance: A small, green, leech-like creature with red eyes and spiky teeth.

Behaviour: Tadpoles spawn from eggs, and immediately start crawling towards the nearest player to attack them. Once close enough, they latch onto players and deal consistent damage to them over time until they are removed, either by the player moving around erratically, or by another player attacking the Tadpole until it dies. Once a Tadpole has been spawned for a certain amount of time, it grows into a Hopper.

Health & Damage: Relatively weak, deals light-moderate damage

Hopper

Appearance: A green, humanoid sized/shaped creature with red eyes and spiky teeth.

Behaviour: Hoppers evolve from Tadpoles; they move around by jumping, and will try to jump at players to attack them. They also gain a biological alien gun to attack with, and will shoot when a player is out of its jumping range. They can jump to different layers.
Health & Damage: Moderate health, deals moderate damage

Parasite

Appearance: A green creature just slightly larger than a humanoid head, which looks like a space invaders alien.

Behaviour: Parasites take control of Humanoid enemies by planting themselves on the heads of their victims and controlling them once dead. They attack the player with whatever weapon the controlled enemy had previously, but in a zombie-like fashion, advancing on players and swinging the weapon when close. Parasites can also be encountered without a host, and they tend to cling to the ceiling and drop down onto players to attack them.

Health & Damage: With host - Moderate health, deals moderate damage; without host - Relatively weak, deals light-moderate damage

Mother

Appearance: A huge green amorphous blob, which has its tendrils and body matter covering the floor and walls of the room it resides in, like its grown into it.

Behaviour: Mother spits out eggs at players that burst into Tadpoles on impact, which is its main method of attack. It will also spawn special variants of Tadpole that can fly, and which fly at players to deal contact damage. It can't move from the center of the room where it sits, so players must switch layers to move around it.

Health & Damage: Boss health, eggs deal light-moderate damage

Levels

By Declan Phillips

Level Structure:

The levels are randomly generated and are structured in a grid like fashion, consisting of rooms and floors. Floors are the rows while rooms are the cells of the grid. The number of floors on a ship depends on the difficulty. The number of rooms on a floor is random. All rooms must be connected as a whole i.e. every room should be accessible to players. Rooms are connected by doors located on either side walls. Floors are connected via elevators. There are many variations of rooms. Some rooms take up two cells which are referred to as double rooms. Rooms can also be hazard rooms. These rooms contain hazards for players to avoid or to use to their advantage. Boss rooms are rooms that contain a boss. There is a medbay room which can allow the players to heal their health. There are also special rooms that can only be accessed by an engineer.

Level Types:

By Aaron McCabe

There are 2 types of levels in Space Raiders; Industrial and Civilian. Additionally, ships can be infested.

Industrial

The industrial ship is the dirtiest ship, with rusty scraps of metals, hazard signs all of the walls, loose screws, random machine parts and heavy machinery all-round the ship. The industrial ship consists of only robots/mechs to run the ship, there is a big variety of different mechs within the industrial ship (E.g. Forklifts, Turrets, Security Bots, Bulldozers).

Civilian

The Civilian ship will be the cleanest ship, the ship will look like it's been taken care of with the general hygiene of the ship will be very good. The ship will have nothing really out of place with most of the items on the ship being put away nicely and being all organized. The Civilian ship will have humanoids on the ship, they will be wearing regular space suits with some minor changes to the suit depending on the said character rank (E.g. Medic will have a medical suit, the captain will have the captain suit).

Infested

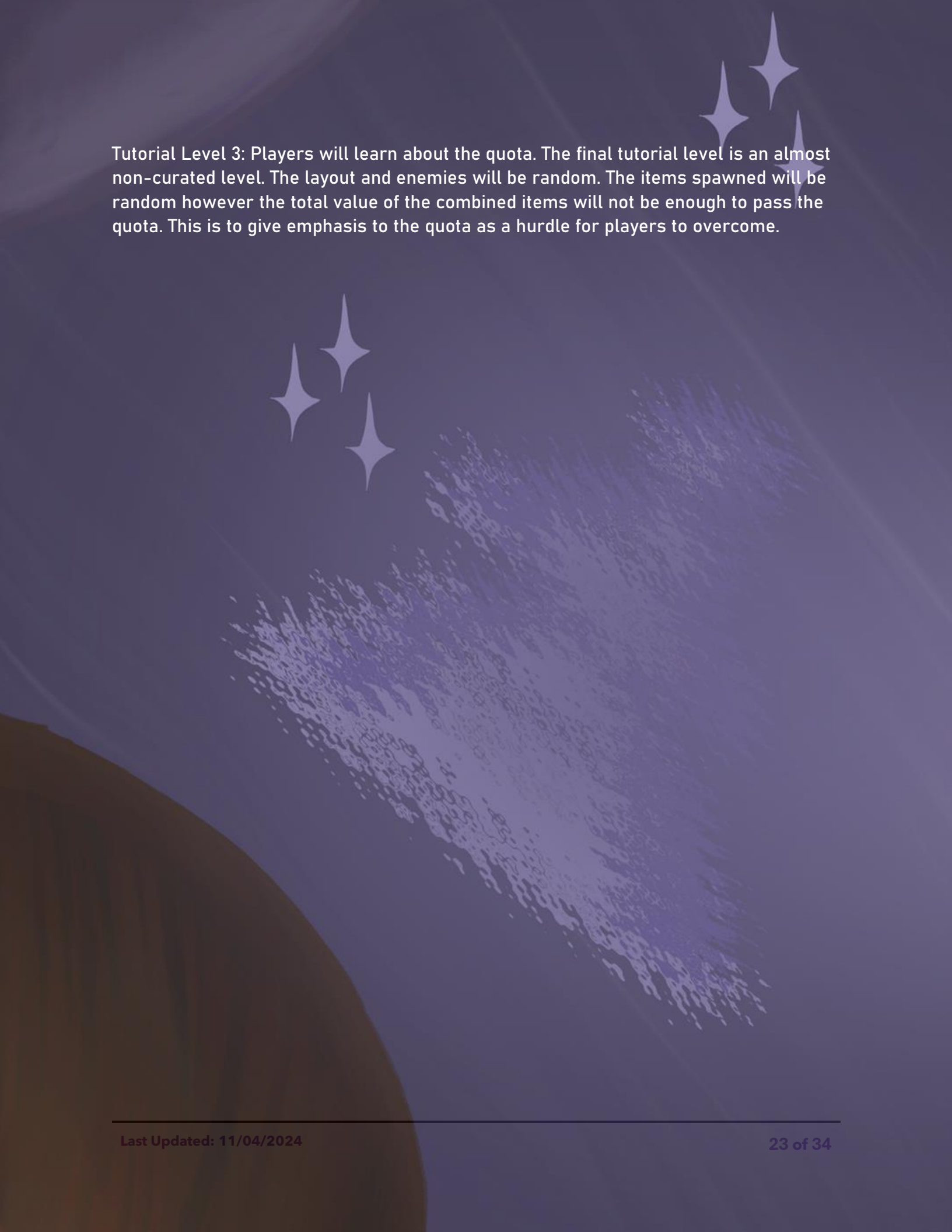
The Infested ship will be different compared to the other ships, the infested ship will infest one of the other ships in the game. So, there will be two types of infested ships either the infested industrial ship or the infested civilian ship, the ship that is infested will be overgrown in infestation. The infestation can consist of mossy walls, big hives, disgusting floors, vines on the roof and more, the infested ship will be the repulsive ship, the abandoned ship. The infested enemies will change depending on the ship, so infested industrial enemies or infested civilian enemies, there will be exclusive

infested only enemies, but the majority of the enemies will be industrial/Civilian enemies that our infested, but with the regular enemies being infested will add more complexity too them. The complexity will consist of more loose attacks, moves that the enemies couldn't do before (E.g. The bulldozer enemies is very rigid will only a strict set of movements, but when the bulldozer become infested it will be able to do crazy things like jumping on walls, moving on multiple lanes).

Training Level:

Tutorial Level 1: Upon starting a game, players will be dropped into the tutorial level. This level will bring players through the basic aspects of the game, beginning with character selection. Players will have the choice of 4 predefined characters, all of the Crewmate class. They will spawn into near empty room with a locked door on the lefthand wall and an unlocked door on the right-hand wall. Between where the players spawn and the unlocked door will be an item. While on their way towards the unlocked the door, players will walk over the item causing the "pick up item" text to appear - prompting the player to pick up the item. In the next room will be an item on a different lane than the players as well as a terminal on the back wall, teaching them how to switch lanes. The next door will be locked requiring the terminal to be hacked. The hacking minigame will be very easy for the players. The next room will have a turret on the ceiling. The turret will be very easy, shooting really slow and only requiring a few shots to kill. In the front of the room will be an SMG. The next room will have 2 security bots and a turret. Each enemy will be on a different lane. The room after will be the last of the first tutorial level, containing escape pods and a terminal. Items will also be scattered around the room. This teaches players about evacing.

Tutorial Level 2: Players learn about the Nerves, Infested & Death. At the character selection screen, players learn about how their characters keep their weapons and health from previous rounds. This level starts off less linear than the previous tutorial levels. The starting floor will be less curated. It will not contain escape pods, malfunctioned doors, big rooms, special rooms and certain enemies. Enemies allowed to spawn are turrets, security bots and bulldozers. The starting room contains two unlocked doors on either side wall. There will be two elevators, one at each end of the floor. The second floor will be linear and curated. The second floor will act as an introduction to the Infested. When players first enter the second floor, they will notice signs of the Infested. As players make their way towards the centre, rooms will become more and more Infested, and players' nerves will diminish. There won't be any enemies in the first few rooms. Eventually, players enter a room filled with eggs. Once players get far enough into the room or have attacked, the door leading in will malfunction and the eggs will hatch. Infested enemies will enter from the vents above the doorways. Players will die.



Tutorial Level 3: Players will learn about the quota. The final tutorial level is an almost non-curated level. The layout and enemies will be random. The items spawned will be random however the total value of the combined items will not be enough to pass the quota. This is to give emphasis to the quota as a hurdle for players to overcome.

World, Story & Narrative

By Declan Phillips

World Overview:

The year is 2715. Technology has advanced. Intergalactic travel is no longer left to fantasy, having been realised two centuries prior. The Star Rush is what followed this technological feat. Various powers laid claim to the new accessible star systems of the Andromeda galaxy and went to war over them. Four main powers arose from the Star Rush; the Stellar Concordat, the Unitary State of Extragalactic Conquest (USEC), the Intergalactic Federation of Space, and The Diarchy. The Stellar Concordat is a power backed by the Space Pope to gain control over territories in order to spread their religion. The Concordat controls the least amount of territory, however being backed by the Space Pope gives them a near endless pool of wealth to draw from. USEC was formed by the Government of The Milky Way. Their goal was to establish a similar system in the Andromeda galaxy as the Milky Way: having a central power, Earth, govern all other star systems. They were able to claim the most territory at the end of the Star Rush, but this left them financially unstable. The Intergalactic Federation of Space's goal is to divide the galaxy up into different regions - with each region self-governing itself. The Diarchy was formed by the two wealthiest families in the Milky Way. They were separate minor powers at the beginning of the Star Rush, operating as monarchs. Halfway through the two families joined to form The Diarchy. They believed with their combined wealth they could become a major power. They control the second most territory. In 2711, due its financial instability, USEC dissolved. The three remaining powers scrambled for the territories resulting in bloody conflict.

As wars continue to wage for control over these territories, avenues of opportunity for fame and fortune are plentiful upon the oceans of space. Trade ships, industrial ships, and cargo ships are left unguarded as the powers cannot afford the men to guard them - making easy targets for pirates.

Narrative Overview:

Space Raiders does not contain a narrative. Players are placed into a world and through gameplay create stories of their own. Each run sees players take control of a new pirate crew. The backstory and motives of the crew are left to the imagination of the players. Maybe you are privateers employed by The Diarchy to raid ships of the other powers or perhaps you are simply pirates just in it for the fortune. The focus of Space Raiders is not story but gameplay.

Art Style

Visual Style:

Environments:

In our game we will have three main environments which are the spaceships, these environments/ships will consist of an infested, industrial and a normal type of environment.

Industrial ship:

The Industrial ship will be full of heavy metal piece's, hot metal parts and massive machinery all around the ship. It will have empty barrels, dirt surrounding all around the ship with nothing valuable on the ship, basically a robot factory kind of ship. This ship will be very unorganized with everything throw all around the place.



Figure 1 Concept Industrial Ship

Infested ship:

The infested ship will look completely overgrown, there will be hives, moss, vines and more. When the crew first enters the infested ship, it will look like an ordinary ship, but as the player gets deeper into the infested area. The ship will slowly start to show infestation, the infestation will slowly start to spread from the top half of ship with moss, vines, and more spreading down on the roof.



Figure 2 Concept Infested Ship

The bottom half of the ship will still resemble a spaceship, but as the crew gets deeper into the ship, the ship will be completely full of infestation.

Civilian ship:

The Civilian ship will be the cleanest ship of them all, this ship will look very advanced compared to the other ships. On this ship there will be a lot of bright lights, clean walls and more, this ship will look like the most put together ship compared to the other ships.



Figure 1 Concept Normal Ship.

Characters:

Each character will have a distinguishable outfit to their respected classes, there will be a crewmate, medic, captain, navigator, and engineer outfit. All these outfits will have a base, this base will just be a space suit that the whole crew wears. The space suit will be a basic suit with a blacked out helmet, you won't be able to see any of the characters faces.



Figure 2 Concept for the Space suits.

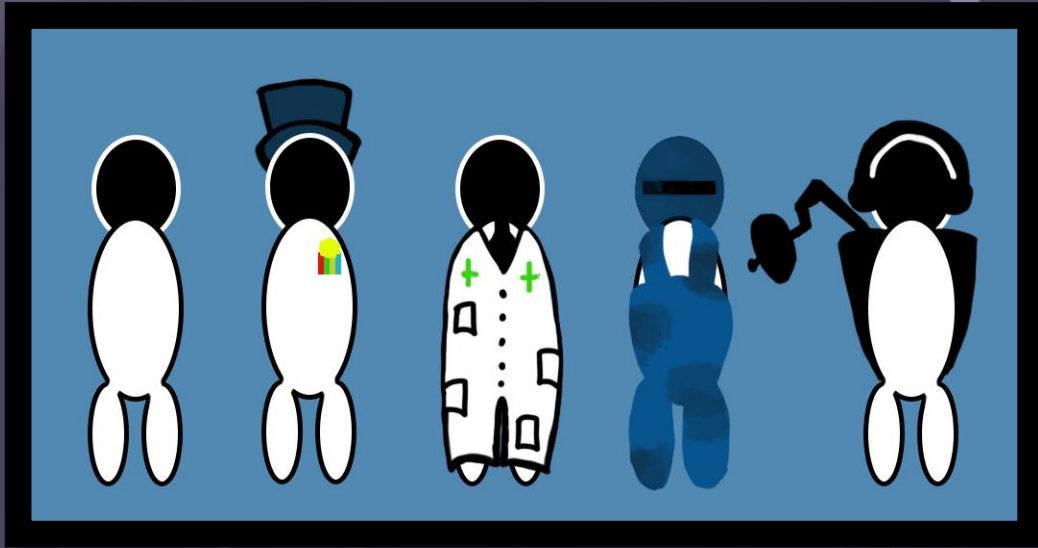


Figure 3 Concept of the different variant of Characters.

Infested:

The infested enemies will have a sort of funky look to them, with infestation covering a lot of the enemies. Infestation can consist of big lumps, weird vines, moss and more, some of the enemies could be infused with items on the ship like pieces of metal, wood, and random items you can find around the ship.

Mechanical:

The mechanical enemies are basically like machines, consisting of a variety of different types of machines. Some of the enemies would be forklifts, bulldozers and turrets, these enemies will all be mechanically advanced compared to the rest.

Normal:

These enemies are Humanoids, the Humanoids enemies will look like regular humans they also will be wearing space suits as well.

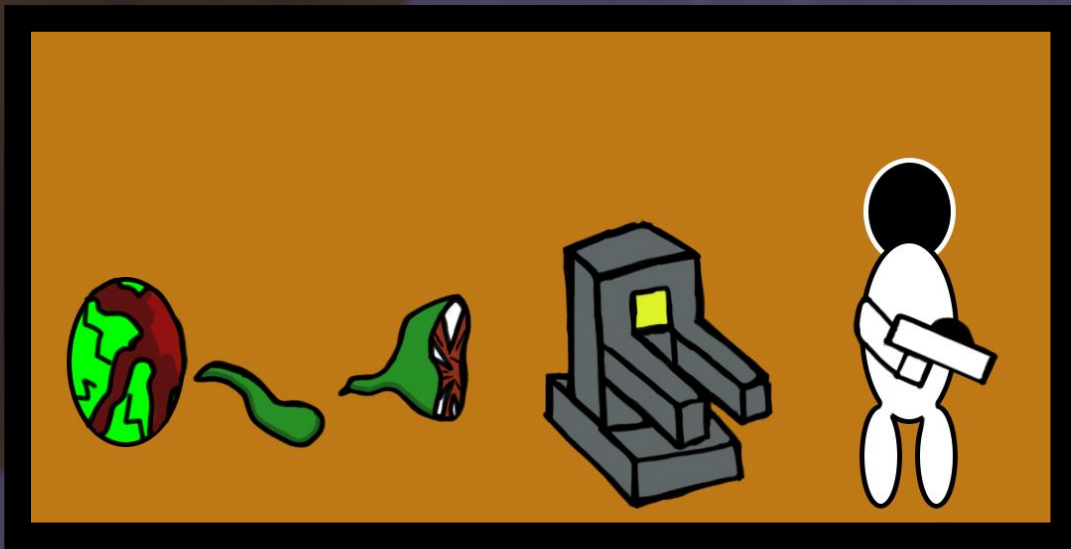
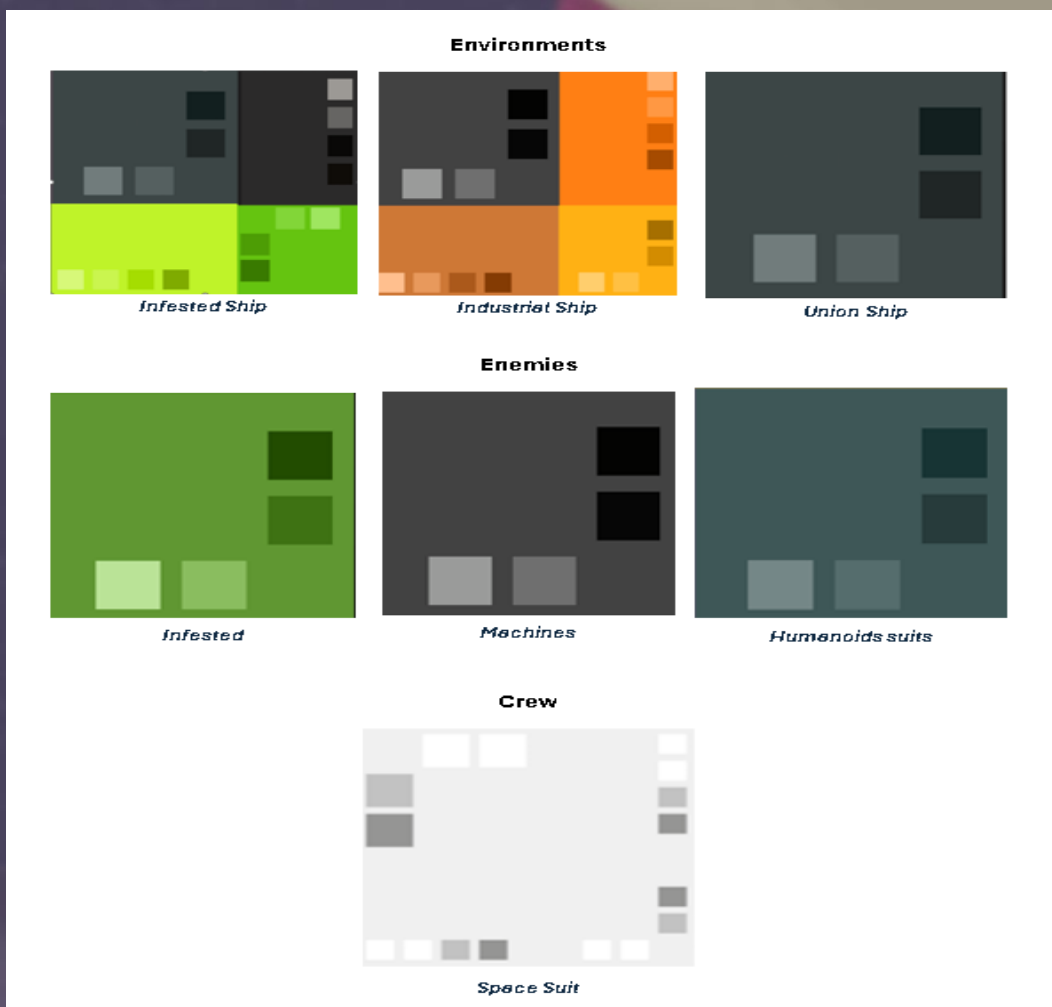
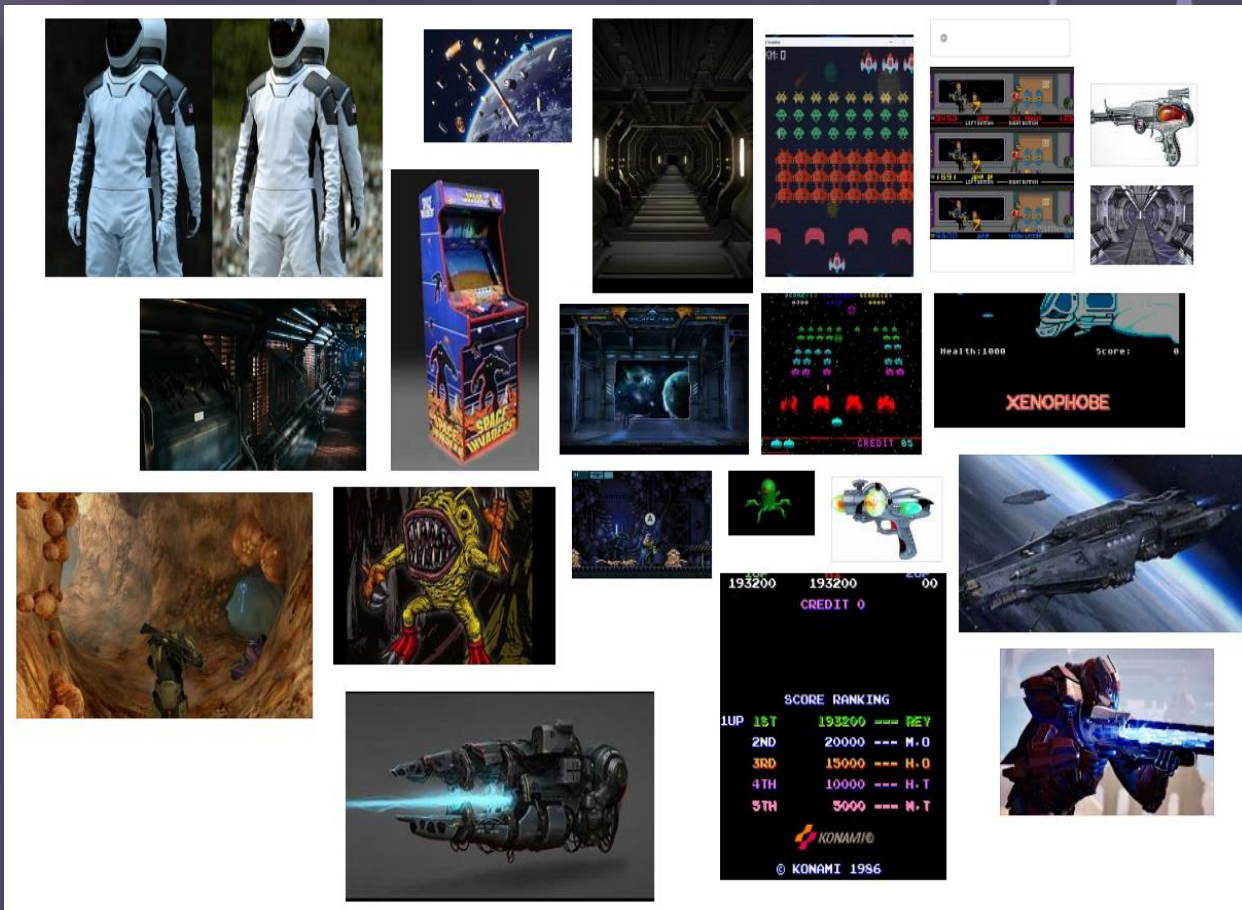


Figure 4 Concept of the different variant of enemies.

Colour Palettes:



Mood Board: General Mood board



UI/Interface

By Aaron McCabe

HUD:

Health:

For the HUD there will be little to no HUD UI on the screen but instead there will be HUD indicators on the player themselves. Each player will have a character that has a helmet, the helmet will glow a colour to represent the player's health. When the player gets hit the helmet will shine a bright colour to show that the player has taken damage.

After the player has taken damage, the helmet will slightly glow less and dim down to show that the player is low on health. If the player receives any health pickup's the helmet will slightly glow more to indicate the player received health and when the player's health reaches zero, the helmet will turn deep black.

Ammo:

The ammo will work similarly to the helmet, on each weapon it's ammo will glow a colour. Depending on the helmet's colour, the ammo colour may be different to make sure that it is distinguishable from the helmet.

When the gun gets low on ammo the colour of the ammo will slowly change to show that the gun is getting low on ammo.

Quota:

For the quota, there will be a meter/bar to indicate how much you need to reach the quota. As you play the game collecting junk around of all the ships the meter will slowly go up and when the meter gets full then you have completed your quota.

Menus:

Main Menu:

The main menu will consist of the option to play the game, go into the settings for the game and to leave the game. In the settings option you will get the ability to adjust the overall settings like the audio, sensitivity, graphics, and more other custom settings that we will have for the game.

Character Selection Screen:

When the player starts the game, it enters into the character selection screen. This screen will give the player the option to pick between five random characters, these characters will have random classes, traits, proficiencies and nerves. After the first player selects their character, the other players will repeat the process until all characters have been selected.

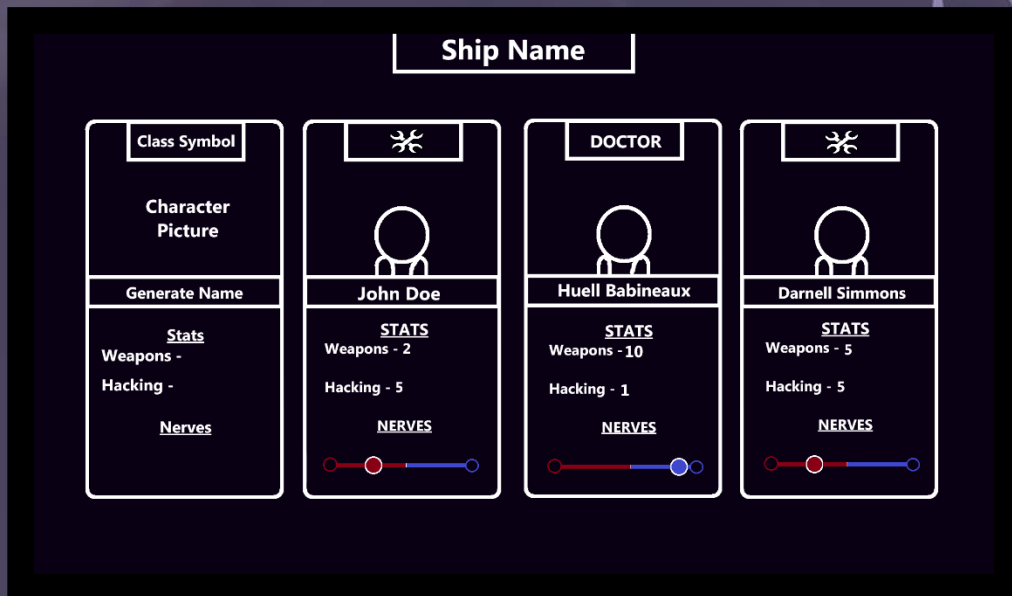


Figure 5 Character Selection

Loading Screen:

The loading screen will consist of your crews' ship casually cruising in space. When the game is finished loading your ship will blast off to the right side of the screen. As your ship fly towards the right this will show your ship catching up to an enemy spaceship. When your ship catches up to the enemy spaceship, this will tell the player's what kind of enemies they will be going against as they will see from the outside of the spaceship.

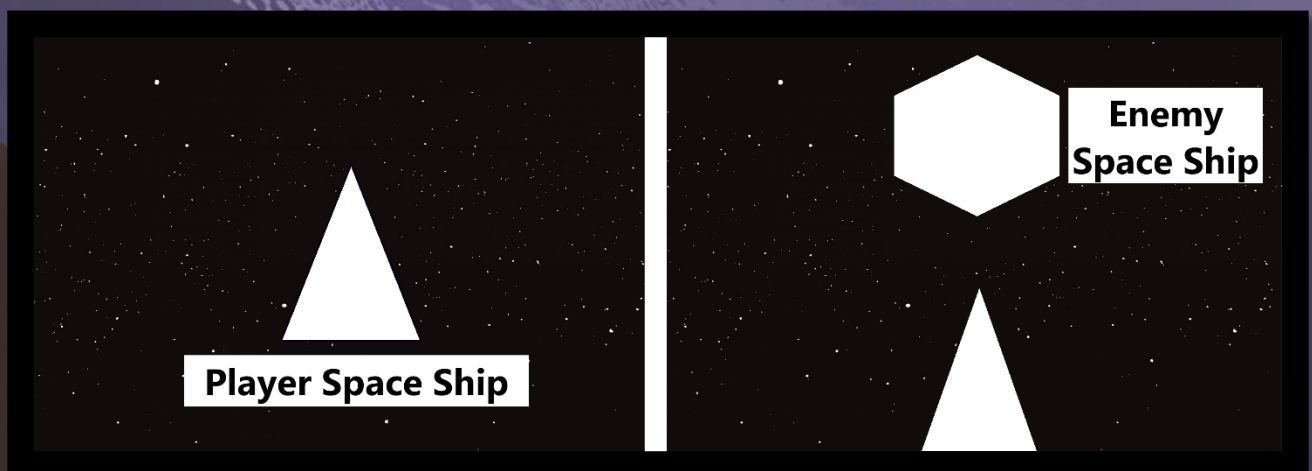


Figure 6 Loading Screen

Intermission Screens:

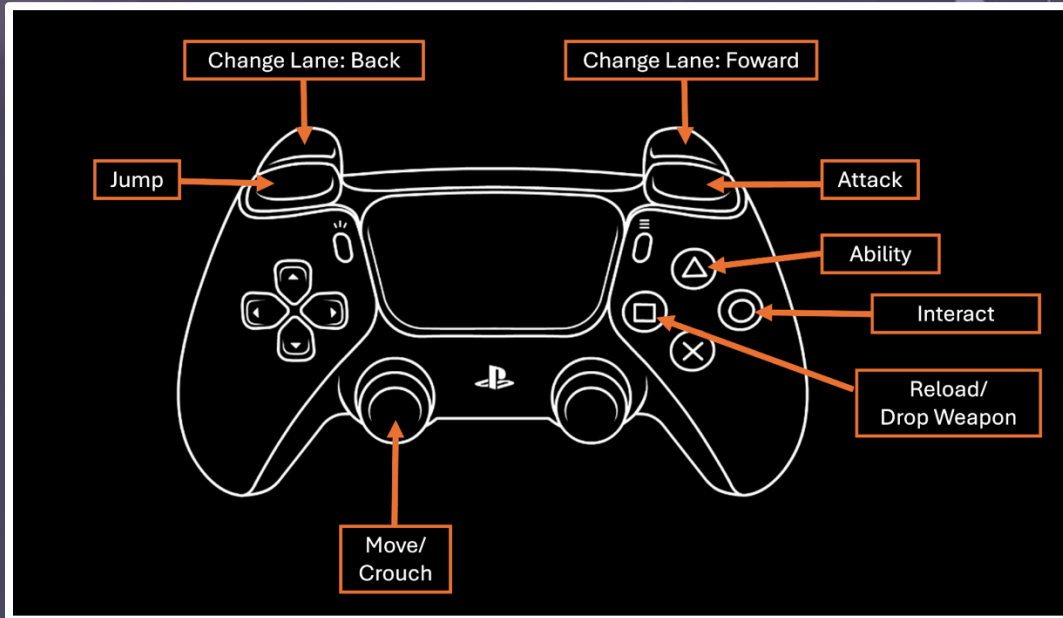
The intermission screen will showcase the crew leaving the enemy ship, this will consist of the crew's ship flying away from the enemy ship. As the crew ship is flying away, your crew's scoreboard will pop up adding the crew's total score from that enemy ship. After the score is added up, your ship will catch up to another enemy ship repeating the process until all of your crew has died or the crew doesn't meet the quota.

Game end Screen:

Once all of your crew has died your crew's name and score will pop up, then you will be ranked onto a leaderboard where all the different crews can compete for the top spot. After your rank on the leaderboard is displayed you have the option to retry again or go back to the main menu.

Control System:

By Declan Phillips



| Control Scheme | | |
|----------------------|-----------------------|------------------------|
| Platform | Xbox | PlayStation |
| Move Sideways | Left Thumbstick | Right Thumbstick |
| Crouch | Press Left Thumbstick | Press Right Thumbstick |
| Jump | LB | L1 |
| Change Lane: Back | LT | L2 |
| Change Lane: Forward | RT | R2 |
| Attack | RB | R1 |
| Interact | B | Circle |
| Ability | Y | Triangle |
| Reload | X | Square |
| Drop Weapon | Hold X | Hold Square |

Help System:

By Aaron McCabe

Hints

In the game there will be a small help system, the sort of help we intend to add in the game are hints/pop ups. These hints/pop ups will help the player in their overall journey in our game, (E.g. Make sure to check all doors, press RT to change lane) this kind of stuff will help and remind the player while they are playing the game.

Audio

By Kiki Oladehin

The game will have a variety of soundtracks and sound effects (SFX) created and inspired by space-based arcade games, both modern and classic. It will take an 8-Bit themed path with a peppy orchestra built main theme, with more foreboding and ominous motives as the player plays the game. The game will contain digitized sounding explosions and enemy death cries, consist of classic item collection sounds similar to games like Pac-Man, early Zelda, and Sonic.

Music

The sound map will be varied with the background music covering various genres of song for the varied maps and the themes behind them. Examples being possible, classical inspired compositions on the more human based ships, hard techno on robot ships, and an abrasive jazz on the more warped alien ships.

The game would also consist of a lot of different conditional motifs playing, based on environmental circumstances and/or encounters, such as emptier rooms having more relaxed ominous themes, the songs in battle speeding up, and each boss fighting have the soundtrack reach a fast paced intense crescendo.

The overall theme for the game's soundtrack will be understandably space related. With sci-fi inspirations, reverberating bass lines and airy, yet eerie, synth melodies.

Sound Effects

When it comes to sound effects, Space Raiders will have effects for all player and NPC interactions. These effects will include things such as, Death Groans, Character Footsteps, Incoming Damage, Weapon Sounds like gun shots, melee impacts (slashes, thumps etc.), Looting weapons, junk, and consumables. Interactive environmental sounds like opening and closing of doors, hazards across the ships such as malfunctioning airlocks, interacting with computer terminals, using the hacking interfaces and such.