

Team Smol

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SMOL - Project Chiron

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Game Description

In our game the player is sent to “cyberspace” where they take direct control of a fixer and try to restore order. The game is presented in 2.5D and the player observes from top-down view while they move their avatar through level after level, shooting, dodging, and using abilities in order to defeat enemies until they arrive at the final boss. In classic rogue-like fashion the player has to restart from the beginning once their health drops to zero.

Aesthetically, in terms of sounds and visuals, we are aiming for an 80s Retro look (vaporwave) similar to Far Cry 3: Blood Dragon or the movie Kung Fury. Further, we want to use visual effects to reinforce the theme of chaos and order. While the player battles it out with the enemies the level is displayed in a chaotic fashion with distortions and a dark color palette. Once the player has cleared a level we want to change to a calmer color palette and remove the distortions.

1. Player

The player uses one set of controls to steer their characters movement and another to determine the direction in which they want to shoot as is common in twin-stick shooters. Since our player character is an agent of order we decided to have their abilities reflect that. As such the abilities are focussed on giving the player control over the enemies and the level. Potential abilities are:

- Dash: Allows to quickly reposition; the player character moves over a short, fixed distance in the direction of their current movement at a very high pace; the direction of the dash cannot be altered once the player committed to it
- Teleport: After a short channel time, the player character is moved instantaneously to a different point in the level within a certain range around the character; the player can pick the exact location they want to teleport to
- Slow Field: The player character lobs a grenade in a certain direction; once the grenade hits the ground it explodes into a circular field in which all enemies are slowed in movement and attack speed; the field disappears after a couple of seconds
- Hack: The player character hacks a standard enemy; the enemy character will then fight on the player’s side for a couple of seconds before switching sides again
- Charge: After a small wind up, during which the player cannot move or attack, the player will deal more damage for a few seconds
- Stun: The X enemies closest to the player are stunned for a few seconds
- Second Life: Once the player health reaches 0 they regain X% health instead of the game being over

Not all of these will be implemented. We plan to figure out which of them work and make for a coherent gameplay experience during prototyping. We might also consider giving the player control over which abilities they want to use, allowing them to choose between abilities, e.g., they can either use the dash or the teleport.

Further, the player can choose between different types of weapons. All of these weapons have low ammunition before they need to be reloaded. As such the player needs to be precise and make every shot count rather than implementing spray'n'pray tactics, thus further reinforcing a sense of order. The player can choose which weapon to use before each level, but they cannot change it afterwards.

- Pistol: Fires single shots, which deal a medium amount of damage each, with a medium delay between each shot, and medium amount of shots before reloading
- Burst Rifle: Fires bursts of three consecutive shots, dealing medium-low damage each, low delay between bursts, and high amount of shots before reloading
- Sniper Rifle: Fires single high damage shots, but needs to reload after every shot

2. Enemies

Enemies represent the element of chaos in the game. As such they move somewhat erratic, only semi-predictable, have fast-firing, inaccurate weapons, and have abilities that should disrupt or confuse the player. We aim to have different enemy types. Each enemy type has a fixed amount of health. An individual enemy is defeated once their health is depleted. Their goal is to bring the player's health to zero. Potential enemy types are:

- An enemy with a submachine gun type weapon; high fire rate, low damage projectiles; medium health
- An enemy with a shotgun type weapon shooting in a cone; individual shots deal low damage, but dangerous when up close; high health
- an enemy with a rocket launcher type weapon; has high range, but low fire rate; projectile explodes on impact dealing damage in a radius; low health

Additionally, we are planning on having a boss enemy as a final challenge for the player as well as a satisfying conclusion to the game. The boss should have very high health, but should also pose a challenge for which the player has to use the entire arsenal at their disposal rather than act as a simple bullet sponge, which is boring to play against, but takes ages to defeat. To accomplish this this final enemy should not only employ different modes of fire between which it switches, but use abilities as well. Abilities could be:

- Creating mirror images of itself that distract the player, but do not deal or take damage; once hit they simply disappear
- Shockwave attack that deals damage if it hits the player character and knocks them away; during the knockback the player cannot move; the shockwave is not continuous, instead the player can dodge it at certain points

In addition to that the boss enemy should also occasionally spawn additional standard enemies to help it in the fight.

3. Levels

The game will consist of a series of levels, each of which consists of a single room. These rooms are bounded by walls and vary in size and shape. Rooms further contain different amounts and combinations of enemy types. In order to increase replay value we want to procedurally generate these rooms, varying size, shape, enemy combinations, and props in the room.

We further want to add traps to the rooms that can affect, both, the player and the enemies. Potential traps:

- Inversion area: Inverts the movement controls while the player moves through it
- Infection: The player takes damage over time
- Vortex: Knocks a character in a random direction over a medium direction; can be cut short by a collision on the way; player cannot move, but aim for the duration

We might add to the list or cut traps depending on time and ideas.

Once the player has cleared a level of all enemies the traps deactivate and the exit unlocks, which leads the player first to a sort of hubworld where the player can swap weapons and potentially change their abilities.

As the player progresses through the game, encounters become more difficult. To achieve this we want to increase the number of enemies the player has to fight during an encounter, combine different types of enemies for an encounter and, decrease the amount of cover provided to the player by obstacles in the level or increase the number of traps. Finally, after a number of levels the player encounters the boss enemy. If the player defeats that enemy the game ends.

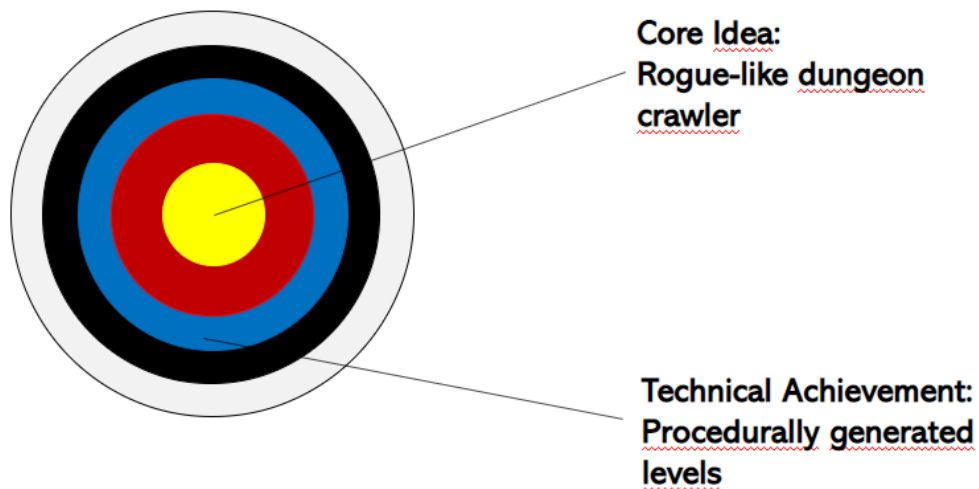
4. Collectibles

If time allows it we plan to implement collectibles which provide benefits to the player for the rest of their run. These will either be dropped by individual enemies or spawn as reward for clearing a level. They will mostly be upgrades to certain weapons or upgrades to the player character's stats, i.e, more health, lower cooldowns, etc.

Technical Achievement

For our technical achievement we want to focus on procedural level generation. Levels will be generated such that they vary in shape, size and distribution of cover elements and props. Further, the amount and combination of enemy types and traps need to adapt as the player progresses in a way that smoothly increases difficulty, but also avoids any unfair situations in which the player is basically already dead the second they spawn.

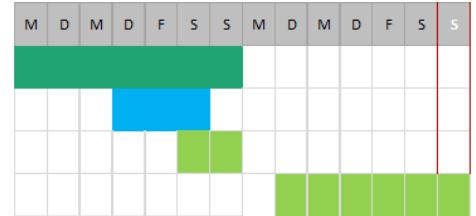
"Big Idea" Bullseye



Development Schedule

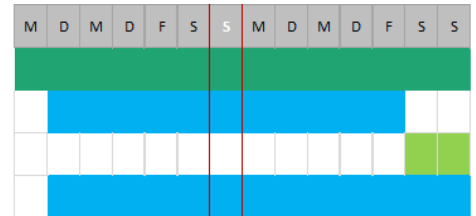
1. Game Idea

Milestone	Assigned to	Progress	Start	Days	
Game Idea	Milestone		12.04.2021	7	
Find Game Idea	Functional Minimum	All	100%	15.04.2021	3
Create Presentation	Deliverable	All	100%	17.04.2021	2
Write Report	Deliverable	All	90%	20.04.2021	6



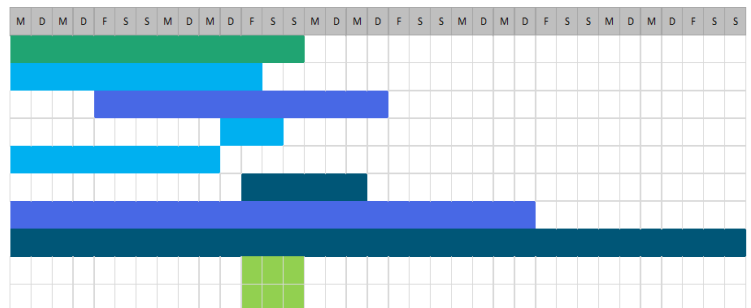
2. Prototype

Milestone	Assigned to	Progress	Start	Days	
Prototype	Milestone		19.04.2021	14	
Create Prototype	Functional Minimum	All	0%	20.04.2021	11
Write Report	Deliverable		0%	01.05.2021	2
Refine Game Design	Functional Minimum	All	0%	20.04.2021	13



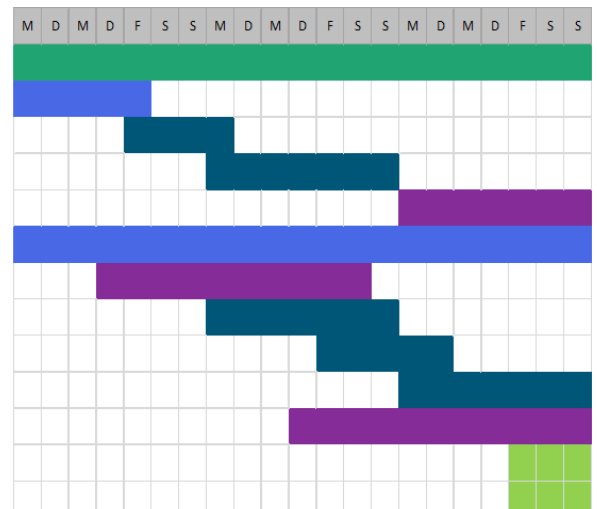
3. Interim Demo

Milestone	Assigned to	Progress	Start	Days	
Interim Demo	Milestone		03.05.2021	14	
Enemy AI: Basics	Functional Minimum	Felix	0%	03.05.2021	12
Obstacles	Low Target	Felix	0%	07.05.2021	14
Simple UI	Functional Minimum	Felix	0%	13.05.2021	3
Player Controller	Functional Minimum	Julius	0%	03.05.2021	10
Traps	Desirable Target	Julius	0%	14.05.2021	6
Procedural Level Generation	Low Target	Mehmet	0%	03.05.2021	25
Art and Sound Integration	Desirable Target	All	0%	03.05.2021	35
Write Report	Deliverable	All	0%	14.05.2021	3
Presentation	Deliverable	All	0%	14.05.2021	3



4. Alpha Release

Milestone	Assigned to	Progress	Start	Days	
Alpha Release	Milestone		17.05.2021	21	
Enemy AI: Boss	Low Target	Felix	0%	17.05.2021	5
Extended UI	Desirable Target	Felix	0%	21.05.2021	4
Additional Enemies	Desirable Target	Felix	0%	24.05.2021	7
Shader	High Target	Felix	0%	31.05.2021	7
Balancing	Low Target	Julius	0%	17.05.2021	21
Extend Player Controller	Desirable Target	Julius	0%	20.05.2021	10
Basic Narrative	High Target	Julius	0%	24.05.2021	7
Collectibles	High Target	Julius	0%	28.05.2021	5
Hub World	High Target	Julius	0%	31.05.2021	7
Visual Feedback Effects	High Target	Mehmet	0%	27.05.2021	11
Write Report	Deliverable	All	0%	04.06.2021	3
Presentation	Deliverable	All	0%	04.06.2021	3



5. Playtesting

Milestone	Assigned to	Progress	Start	Days	M	D	M	D	F	S	S	M	D	M	D	F	S	S	M	D	M	D	F	S	S	
Playtesting	Milestone		07.06.2021	21	[Green bar]																					
Playtesting	Desirable Target	All	0%	07.06.2021	18	[Purple bar]																				
Implement Player Feedback	Desirable Target	All	0%	07.06.2021	28	[Purple bar]																				
Write Report	Deliverable	All	0%	23.06.2021	5	[Green bar]																				
Presentation	Deliverable	All	0%	25.06.2021	3	[Green bar]																				

6. Final Release

Milestone	Assigned to	Progress	Start	Days	M	D	M	D	F	S	S	M	D	M	D	F	S	S	
Final Release	Milestone		28.06.2021	14	[Green bar with arrows]														
Write Report	Deliverable	All	0%	05.07.2021	7	[Green bar]													
Presentation	Deliverable	All	0%	05.07.2021	7	[Green bar]													
Video	Deliverable	All	0%	05.07.2021	7	[Green bar]													

7. Targets

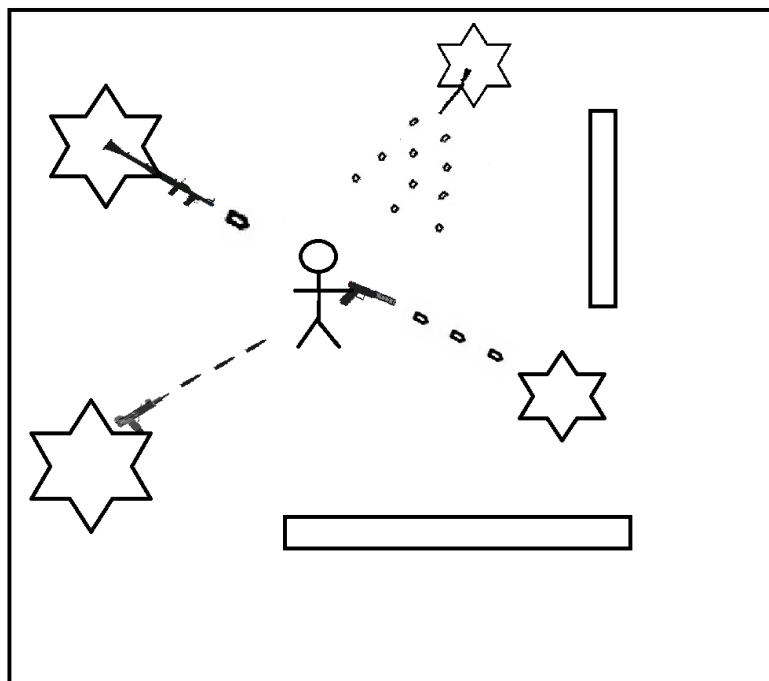
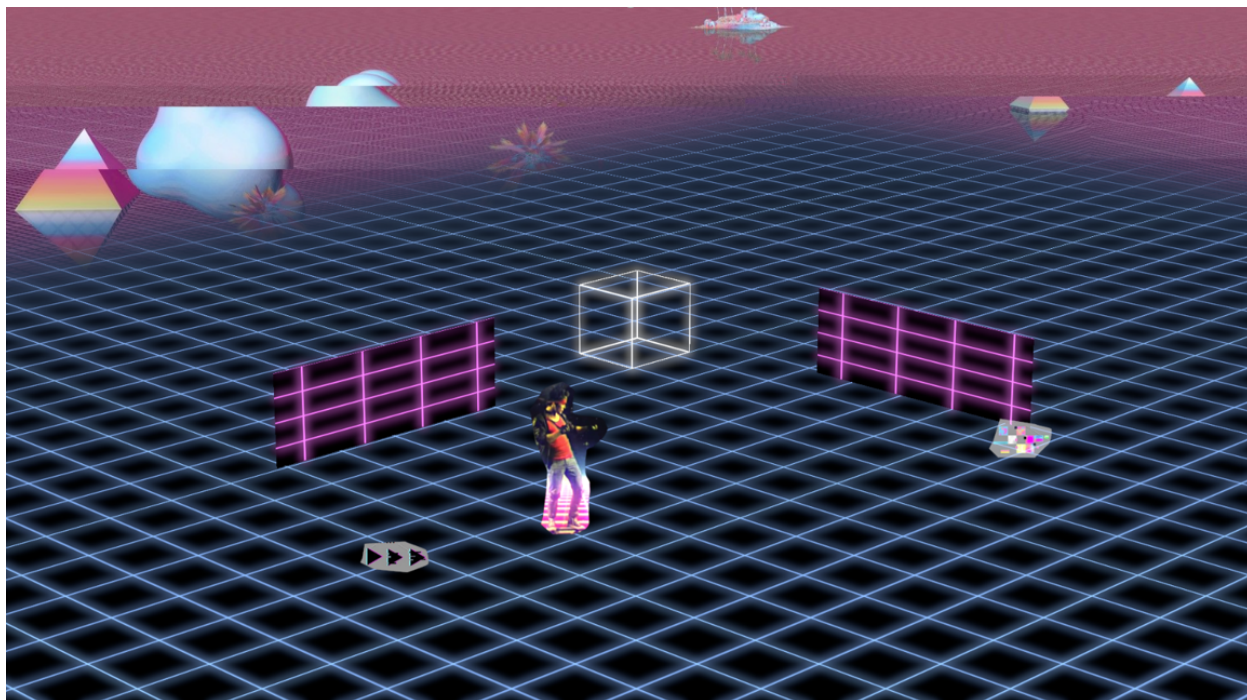
- a. Functional minimum
 - i. Handmade level (Tutorial level)
 - ii. One functional enemy
 - iii. Basic Playable character
 - iv. Simple UI (Health, Quit Game, Settings)
- b. Low target
 - i. Simple procedural level generation
 - ii. Player abilities
 - iii. Visually somewhat appealing
 - iv. Boss enemy
 - v. Level obstacles
- c. Desirable target
 - i. Fancier procedural level generation
 - ii. Extended UI
 - iii. More and animated enemies (~3)
 - iv. Traps
 - v. Sound effects and music
 - vi. Well balanced
- d. High target
 - i. Visual Feedback Effects (i.e. screen shake etc)
 - ii. More weapons
 - iii. Collectibles (Player Power-ups/Upgrades)
 - iv. Enemy drops
 - v. Hub world
 - vi. Basic narrative

- e. Extras
 - i. Extended narrative
 - ii. More enemies/bosses
 - iii. Player progression system

Assessment

The game's main strengths should be its well-balanced mechanics and its juicy feedback when the player interacts with it. The game is mainly aimed at players who enjoy challenging themselves and are willing to restart the game over and over again to master the game's systems. Further, the game could appeal to players who enjoy the vaporwave aesthetics and are tolerant to failing a lot. We would consider the design a success if we manage to produce a well-balanced gameplay experience that never feels unfair to the player and keeps them engaged. Even when their character dies over and over again, the player always comes back to the game to try again.

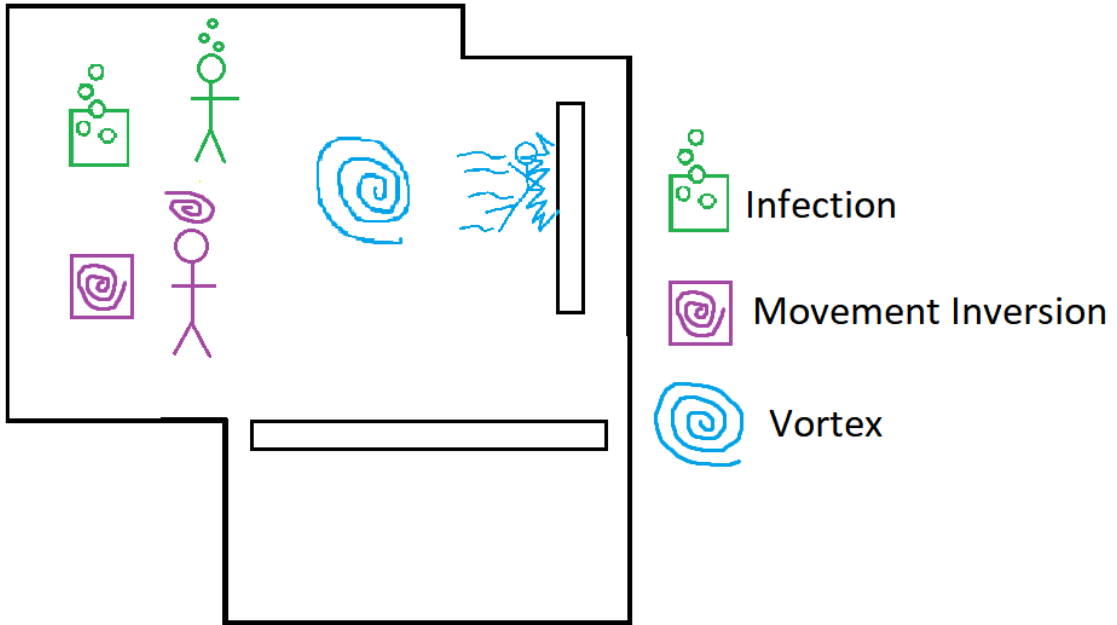
Sketches



Ranged enemy



Player with ranged weapon



Choose a weapon

Start Game

The screen displays three gun icons, each with a radio button below it. Below the guns is a stick figure representing the player.

