

CYBERHEISTERS

Prototyping

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OVERVIEW

SYNOPSIS

Cyberheisters is a first-person shooter – set in the city of Cyberpunk, a city that is booming with technology. The players must navigate the tightly packed city in acts of thievery to complete contracts given to them. These acts of thievery are the focus of the objectives – for example, find the code to unlock the vault, or defend the bank for X number of minutes whilst the money is being extracted. These maps are linear, much like Vermintide and Left 4 Dead.

For this prototype, we will be introducing the single player “campaign” story (see, Vermintide and L4D on how they do their campaign mode), where the player can, not only controls them self, but can also give orders to an AI character who fights alongside them.

This AI character can have commands issued to them, as explained later in the documentation. This AI is not as strong as the player, but it is invulnerable to attacks, and as such, should be used to the player’s advantage.

However, for the final build of the game, it is possible to have 4 player cooperative play on these story maps, where the enemies are much stronger and spawn in larger waves.

Objectives will gate progression – it may be as simple as pulling a lever, or as complex as defending a position for a duration of time whilst securing loot. Besides completing the contract, extremely rare treasures will be cleverly hidden around the level, and in rare cases will require puzzle solving. Obtaining these treasures make enemies more aggressive, or can sometimes unleash the “Riftwalkers” (explained later). These treasures are entirely optional.

INFLUENCES

LEFT 4 DEAD

Left 4 Dead is a 4 player, fast-paced shooting game, where the player must progress through a linear map, clearing objectives as they go along, whilst clearing hordes of zombies that spawn along the way, who are trying to halt the team's progression. The levels feel large, although a play session through a single map often only lasts 15 to 20 minutes. The aim of the game is to survive until the end, completing objectives to make the rest of the map accessible.

Cyberpunk will be taking elements of horde based shooting and linear map progression – the path will be predetermined rather than procedurally generated, with key points and choke points where hordes are most likely to occur – the overwhelming sheer number of zombies are often the biggest factor for losing in Left 4 Dead. Specials with interesting mechanics will spawn throughout the map too, providing an extra dimension to the otherwise monotonous gameplay of killing hordes of basic enemies.

Key features of the game that will be taken are: horde fighting, linear level progression, objectives (but more familiar to Payday 2 as explained below).



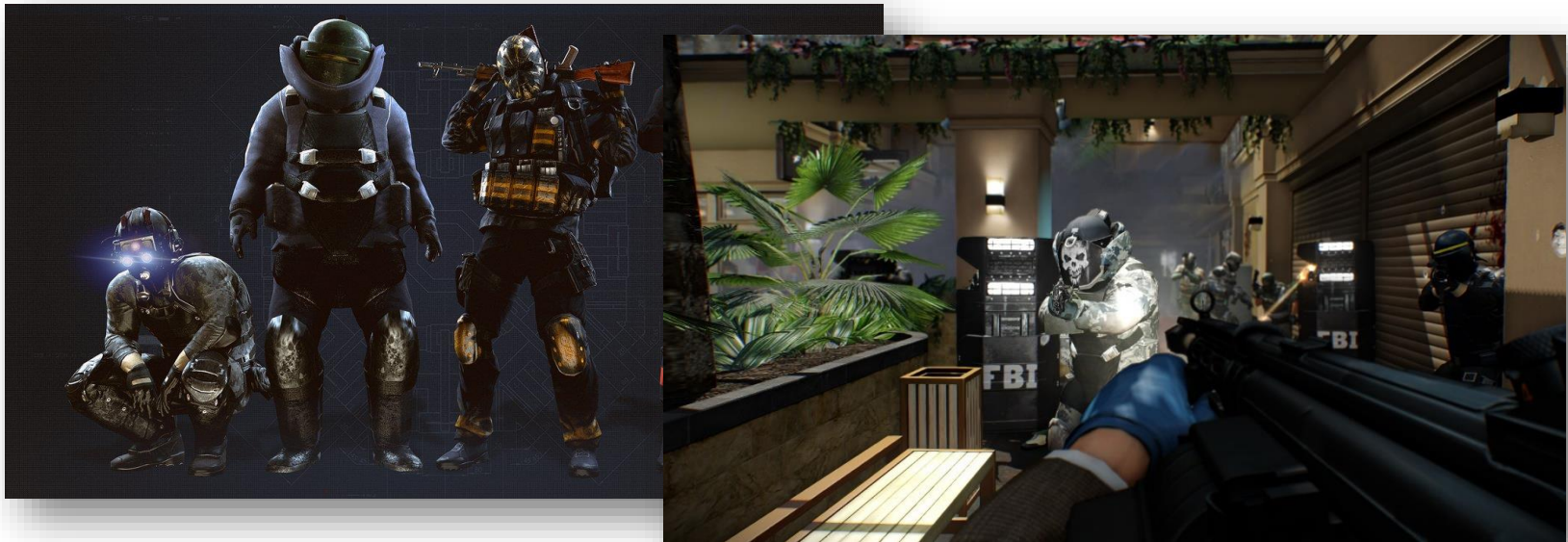
PAYDAY 2

Payday 2 is focused around completing objectives in a confined map, with enemies spawning in waves (much like Left 4 Dead), except using entry points that you would expect from the FBI – repelling down ceilings, busting through doors, and crashing through windows. In addition, players have deployable items and loadouts that they can customise before going into a level – such as choosing what guns they want to bring or what special abilities and team assists they want to equip. Players navigate the level as determined by the objectives, such as defending an area or collecting quest items into one location. The aim of the game is to complete the level, but also collect as much money as possible.

In Cyberpunk, the main theme of the game is very reminiscent of Payday 2 – stealing objects of high monetary value as part of a contract. In Payday 2, objectives are often gated by a timer. The player then must defend the objective until the vault or safe is unlocked to proceed.

There are aspects of AI cooperation in Payday 2 that Cyberpunk will take inspirations from too. For example, “Taser” units are more likely to hide behind “Riot Shield” units when going in for the Taser shot. Similarly, “Cloakers” (acrobatic assassins) are more likely to move in groups together.

Key Inspirations: heisting, AI mob behaviour, character customisation, specials units, wave-based spawning.



GAMEPLAY BRIEF

Who or what do the players control?	Each player controls a character	
What are players trying to achieve in the level?	Main Goal	Reach the end of the level
	Sub Goal 1	Complete the contract (for example: steal the diamond)
	Sub Goal 2	Complete objectives along the way to progress through the level (for example: break into the safe, crack the code, etc)
	Sub Goal 3	Steal any extra, hidden loot along the way (makes the game harder).
	Sub Goal 4	Complete the game without anyone dying.
What are the Player's main actions?	<p><u>FPS shooting –</u></p> <p>Players are in possession of 3 guns. Mouse Scroll switches guns. Mouse Horizontal and Vertical aims the gun. Left Mouse Click fires the gun.</p> <p><u>Player Movement –</u></p> <p>Players move parallel to the plane. WASD moves the player along the plane horizontally and vertically by conventional inputs.</p> <p><u>AI Companion –</u></p> <p>The AI companion is a robot that follows the commands of the player. It takes no damage, however with its life force connected to the player, should the player die, the robot goes with them. Holding the Command Button (Right Click) will bring up the command wheel. Then four options are presented to the player in the player's interface. The player can select an option if they hover their mouse over the command and releasing the Command Button.</p> <p>Move Command moves the companion to the closest point to where the command was issued. Follow Command will make the robot prioritise the safety of the player, following them around and killing any enemies that are too close. Attack Command orders the robot to attack the closest enemy within a certain range (30m?). If an enemy is not found, then a response from the robot will notify the player of the error. The robot will prioritise enemies based on the situation (for example, if there are few trash mobs in sight, then the robot will prioritise any specials should there be any – these units will be explained later). This will also cause the robot to break away from the player until otherwise commanded to.</p>	

	<p>Hold Command orders the robot to hold their position, whilst still attacking any enemy within range. The robot will not move until issued otherwise, or if combat has ended (to which, if the player still wants the robot to hold a position, the player can re-issue the command)</p> <p><u>Destructive Force (Ability) –</u></p> <p>The player has a special move that they can do, which is on a long cooldown. When available, the player punches forward, ejecting 20ft long cone-shaped shockwave in that direction, damaging and staggering all units caught in the impact. Q allows the player to perform this action when available.</p> <p><u>Player Item Consumption –</u></p> <p>Players can acquire consumables throughout the level. E allows the player to pick up an item. This item is then stored in their hot-keyed inventory. There are only a few slots. 1, 2, 3, 4 allows the player to consume the item in that given slot. These items are: Bomb causes an explosion in the area when thrown with Left Mouse Click. Stasis Bomb freezes units in an extremely large area when thrown with Left Mouse Click. Deployable Shield is deployed in front of the player, blocking damage when placed with Left Mouse Click. These shields only persist for a certain amount of time, or when destroyed by specific enemy interactions. Medical Kits are used when Left Mouse Click is held for a duration of time, replenishing health for the player.</p>
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KEY GAMEPLAY COMPONENTS

Key Dynamics Elements	Usage in Game
Horde spawning patterns	<p>Enemies spawn in large waves, with the aim to overwhelm the player with their sheer numbers, in a similar way to Left 4 Dead. They also provide cover for special units in the same way that Payday 2 does – specials are more likely to move away from the main horde to strike at unexpected angles. There are periods of quiet in between waves where players can scrounge for med-kits/bandages and gadgets to prepare for the next wave.</p> <p>They can also use this time in between waves to try to find rare loot.</p>
Gadgets	<p>Old but valuable tech can sometimes be found, to empower the player’s fighting capabilities.</p> <p>To reiterate from earlier, these are:</p> <p>Bomb causes an explosion in the area when thrown with Left Mouse Click. Stasis Bomb freezes units in an extremely large area when thrown with Left Mouse Click. Deployable Shield is deployed in front of the player, blocking damage when placed with Left Mouse Click. <i>These shields only persist for a certain amount of time, or when destroyed by specific enemy interactions.</i> Medical Kits are used when Left Mouse Click is held for a duration of time, replenishing health for the player</p> <p>These gadgets are consumables (hence, are only temporary).</p>
The LRF (Lethal Reactive Force)	<p>The main adversary in Cyberheisters are The LRF (Lethal Reactive Force). They are the police force of this Universe, equipped with highly lethal weaponry and opting for violence rather than peaceful negotiations – in a bid to suppress crime. This didn’t stop the Cyberheisters, a syndicate of professional criminals.</p> <p>The “hordes” that spawn into the level to oppose the player are known as an LRF Battalion – spawning in a group of 20 or more for a single wave of enemies. These units are basic in every way.</p> <p>The LRF Battalion can take the following actions</p> <p style="padding-left: 40px;">Shooting means that all units engage from a range.</p> <p style="padding-left: 40px;">Melee can be triggered when a player gets too close.</p>

These units also have different states, depending on the situation.

Hunting means that the enemy is now hunting for the player.

Flanking happens randomly for 1 unit in every wave, if a unit isn't flanking already. This unit will attempt to cut off the player, by teleporting to a new location, away from the main force, in hopes of getting a free strike – reminiscent of how a single enemy can often backstab the player in Vermintide.

Taking Cover occurs randomly – an enemy unit will occasionally take cover behind a wall. Although the player can still hit the enemy, it will be very difficult to do so.

Rush gives a unit a brief burst of speed, leaving a blue trail as they move forwards. They charge the player, but the blue trail should make it easy for the player to see them coming and react accordingly.



The **LRF Technoforcercs Division**, or Technoforcercs for short, are the special units of this game. They each have unique traits and are augmented in some way, to set them apart from the basic units – spawning randomly, alongside or without hordes. They also inherit all the possible skills that a basic LRF unit can bring to the table (Rush, Taking Cover, etc)

Hunters: Preferring long ranged assault rifles, they fire at the player from behind the wave.

They can do the same actions that an LRF Battalion unit can do, as well as...

Blend In, by standing behind a unit or a group of units, and firing from a long range. As they look like a basic unit as well, the player should not be able to spot them immediately, unless if they are paying attention.



	<p>Beserkers: Getting up close and personal, they threaten any camping spots that players have taken advantage of. They are much bigger and armoured. They will make their presence known with their flashy armour and booming voices.</p> <p>Larger health pools and explosive resistance allows them to get more up and personal by not dying.</p> <p>Rush is triggered much more often.</p> <p>If a deployable shield is present Berserkers have a chance of charging the shield, destroying it completely. Upon destroying the shield, they are stunned for a period, presenting both positive and negative outcomes.</p>  <p>The Captain: Donning white armoured Kevlar to distinguish himself from the others – he is the Captain, empowering all nearby units whilst being difficult to take down on his own, serving as a miniboss. Only one of him spawns per run.</p> <p>The LRF Battalion is triggered immediately with the presence of The Captain. He means business, unlike the other Technoforcers.</p> <p>Much larger health pool and explosive resistance allows him to survive for long periods of time. However, caution is advised when making him too durable.</p> <p>If a deployable shield is present The Captain has a chance of disengaging the shield from range, destroying it completely.</p> <p>Empower boosts the accuracy of all LRF Battalion units.</p> 
<p>The Riftwalkers</p>	<p>Certain parts of the map will be shrouded in darkness. These are optional paths, where the player will encounter the Riftwalkers – beast-like enemies which require players to adapt to larger waves of melee striking enemies.</p> <p>They work in waves much larger than expected, making them more overwhelming and intimidating.</p>

The Riftwalkers are the general name for these species, but is a name commonly given to the common horde units that challenge the player.

Melee is triggered when a player gets too close.

These units also have different states, depending on the situation.

Hunting means that the enemy is now hunting for the player.

Flanking happens randomly for 1 unit in every wave, if a unit isn't flanking already. This unit will attempt to cut off the player, by teleporting to a new location, away from the main force, in hopes of getting a free strike – reminiscent of how a single enemy can often backstab the player in Vermintide.

Rush gives a unit a brief burst of speed, leaving a blue trail as they move forwards. They charge the player, but the blue trail should make it easy for the player to see them coming and react accordingly.

Evolve a unit can randomly evolve into a special unit. The player has a chance to kill this mob before it fully transforms, nullifying this effect.

These Riftwalkers can come in special forms, mutated in unique ways, bringing new mechanics to the table, unlike the Technoforcers.

The Rifthound, much like a Berserker, he is very tanky. This is a very basic mutation that occurs often.

This unit inherits all skills from a basic unit. (Including being able to evolve into any other mutation with a rarer chance).

Howl allows the Rifthound to boost the morale of all other Rifthounds, giving them a brief burst of Rush and being able to dodge the player's first shot.



The Rifthelm is a rare mutation. An aggressive beast that can be felled when striking at the legs. He is only slightly more durable than a Rifthound when striking at his weak points, but offering explosive resistance, as well as almost full bullet resistance in his armour. This is the only unit that can cause friendly fire to other Riftwalkers.

This unit inherits all skills from a basic unit.
(Excluding evolving)

Rampage throws the Rifthelm into a rage, thrashing about violently in place – damaging other Riftwalkers too. Anything caught in the rampage is immediately thrown away. Other mutated beasts actively avoid him in this state.

Defensive Stance, the Rifthelm shows the upper part of his body (the armoured side), whilst slowly lumbering sideways towards the player.



The Empress is a rare mutation. Although she does not attack, her presence causes strange events to occur.

Calling causes random mutations in Riftwalkers.

Linking causes all Riftwalkers to co-operate, making them move more tactically (such as gathering, or saving their rush to be used simultaneously).

Tremors is triggered if the player is too close. This command causes a small handful of Riftwalkers to protect the Empress. The tremors cause Riftwalkers to wake from their slumber, spawning from beneath the ground.

Distress is triggered when she is attacked. This enrages all Riftwalkers, boosting their attack for a small duration.



The Packmaster is a two-part mutation – the “rider” and the “beast”. He is the leader of all beasts, a mini-boss that only occurs once per run.

The Rider, the one who sits on top of the beast is small, but much more intelligent than the rest. He gives audible commands to all the Riftwalkers on how to move.

To Battle! *Occurs when he spawns. A horde is immediately triggered, with 1 Empress.*

Charge Forwards *commands all Riftwalkers to use **Rush**.*

Collate *commands some Riftwalkers to evolve, causing a mass mutation. He then commands other units to defend the ones who are evolving. This, however, will also leave The Rider and any other mutations exposed.*

Make Way *commands all Riftwalkers to make a path for the Packmaster, for him and his beast to take charge into the battle, or to make way for him to otherwise retreat.*

Beast, Come! *Is a command that only happens when the Rider loses his beast. If this happens, the Rider has a chance to call another beast to ride upon.*

The Beast is a Rifthelm, a beast that the rider rides upon, but once controlled by the Rider, is augmented with intelligence, and is much less likely to rush into battle and instead opt for survivability.

This unit inherits all skills from a **Rifthound**.



These areas will often contain ultra-rare loot. If the loot is taken, this will cause Riftwalkers to spawn throughout the rest of the level, in place of the LRF.

Customisable Classes	Each class brings its own unique trait to the battlefield, in the same way Vermintide has separate heroes and Overwatch has an array of characters to choose from. However, each class itself can be customized further by customizing a loadout, distributing skill points into a simple skill tree, and leveling each character. This concept will not be discussed further in this prototype, as it will require documentation dedicated to this topic.
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POSSIBLE AREAS FOR PROTOTYPING

Area of Concern	Proposed Prototype
How strong should the LRF be?	Have players go through a set scenario with pre-set mobs in each room.
Questions to be answered	<p>Are some combinations too OP?</p> <p>How powerful should certain mob types be?</p> <p>How does the player priorities the enemy units, and does this fit the intended play experience?</p> <p>How does the player use items to improve their survivability?</p>
What does success look like?	<p>1 to 2 specials with the horde should not feel intimidating. 3 to 4 specials with the horde should prove to be a challenge but nothing that the player can't handle, so long as they choose their moves wisely.</p> <p>Berserkers should not die so easy. The Captain should survive considerably longer (4 to 5 turns?), but without hurting the player too badly.</p> <p>It should be very difficult to overcome the Captain, accompanied with Battalion forces and 4 Technoforcers in play (this is where items should be introduced).</p>

Area of Concern	Proposed Prototype
How strong should the Riftwalkers be?	Have players go through a set scenario with pre-set mobs in each room.
Questions to be answered	<p>Are some combinations too OP?</p> <p>How powerful are the Riftwalkers in comparison to the LRF?</p> <p>Do they feel more intimidating?</p> <p>Does the player feel more engaged when fighting the Riftwalkers?</p> <p>Are the rewards appropriate to the risks that the Riftwalkers bring?</p>
What does success look like?	<p>As they are more un number, their individual stats should be lower than an LRF unit. Therefore, taking one of these units on their own should not pose much of a difficulty.</p> <p>However, when grouped up into specific combos, they will become much stronger and the player should feel overwhelmed.</p> <p>The player takes lots of damage.</p> <p>Should not be an easy challenge.</p>

Area of Concern	Proposed Prototype
When should hordes be spawned?	Have players go through a scenario, whilst attempting to randomly spawn hordes/specials using dice rolls
Questions to be answered	<p>Are some combinations too OP?</p> <p>What dice do we use to spawn mobs and does this reflect appropriately with how frequently we want mobs to spawn?</p> <p>How often does a Captain spawn in a run? When does he spawn?</p>
What does success look like?	<p>1 to 2 specials with the horde should not feel intimidating. 3 to 4 specials with the horde.</p> <p>Can we keep these values consistent?</p> <p>A Captain should spawn 70% of the time for a given run, aiming to spawn later into the level rather than early (although if it's early,</p>

Area of Concern	Proposed Prototype
Item drop rate	Players have the choice to find loot. The player should roll the dice if they want to loot the room, only if the option to loot the room is available.
Questions to be answered	<p>Are spawn rates consistent?</p> <p>How often does a player leave loot behind?</p> <p>How many chests do we want per room?</p> <p>Are items too strong?</p>
What does success look like?	<p>2 to 3 items per chest.</p> <p>Items should feel like they have a marginal impact on the game – in some ways game changing when used correctly, however the game should not feel too item-centric..</p>

Area of Concern	Proposed Prototype
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Procedural generation	Generate a level for the player to progress through, as well as generating loot, whilst spawning hordes to give the player a sense of urgency, such that players don't remain in certain parts of the level for too long.
Questions to be answered	<p>Can procedural generation create an interesting, repeated experience?</p> <p>Can we make the changes subtle, but noticeable? (not enough to make the map completely different each time)</p> <p>Where should secret areas be located?</p> <p>Does the map feel too big?</p> <p>How long should a play session be?</p> <p>Does the player feel compelled to take different routes when available to them?</p> <p>Is the player interested in taking on the secret areas?</p> <p>Do they feel challenged when accessing the secret areas?</p>
What does success look like?	<p>A play session should not last longer than 30 to 40 minutes.</p> <p>Players should have a reason to pick different routes when available to them (e.g: "this path looked more intimidating")</p>

LIST OF TERMINOLOGY

Term	Definition
(n)d(n) (for example, 1d6)	<p>The first “n” defines the number of dice, whilst the second “n” defines the number of faces on the die.</p> <p>For example:</p> <p>2d6 means 2 6-sided die,</p> <p>4d12 means 4 12-sided die,</p> <p>1d4 means 1 4-sided die.</p>
Trash mobs	<p>A trash mob refers to the most common form of enemy – in this case it would be an LRF Battalion unit or a Riftwalker unit, in the same way that a basic zombie in Left 4 Dead would be called a trash mob too.</p>
Agro	<p>Agro, or aggravation, refers to the current target of an enemy unit. For example, drawing agro means to draw attention from an enemy target.</p>

PROTOTYPE 1 – BALANCING COMBAT

BRIEF

Area of Concern	Proposed Prototype
How strong should the LRF be?	Have players go through a set scenario with pre-set mobs in each room.
Questions to be answered	<p>Are some combinations too OP?</p> <p>How powerful should certain mob types be?</p> <p>How does the player priorities the enemy units, and does this fit the intended play experience?</p> <p>How does the player use items to improve their survivability?</p>
What does success look like?	<p>1 to 2 specials with the horde should not feel intimidating. 3 to 4 specials with the horde should prove to be a challenge but nothing that the player can't handle, so long as they choose their moves wisely.</p> <p>Berserkers should not die so easy. The Captain should survive considerably longer (4 to 5 turns?), but without hurting the player too badly.</p> <p>Berserkers should have a strong presence in the field (for example, destroying shields), but otherwise can does not begin as an immediate threat. Hunters should feel threatening, but easy to take down, and thus can be a problem that is easily overcome if handled correctly. The Captain should, overall, feel like a miniboss – entering the fray with his units and threatening the player's survivability.</p> <p>It should be very difficult to overcome the Captain, accompanied with Battalion forces and 4 Technoforcers in play (this is where items should be introduced).</p>

VERSION 1.0

The purpose of this prototype is not so much to balance our units, as it is to ensure that our enemies “feel right”. What this means is that, when the player is faced with an enemy, they should instill a reaction, in the same way that the Tank in Left 4 Dead feels intimidating and threatening, and rightly so, as it often takes 3 to 5 minutes just to take down this horrific beast.

To reiterate:

Berserkers should have a strong presence in the field (for example, destroying shields), but otherwise can does not begin as an immediate threat. Hunters should feel threatening, but easy to take down, and thus can be a problem that is easily overcome if handled correctly. The Captain should, overall, feel like a miniboss – entering the fray with his units and threatening the player's survivability.

INTRODUCTION:

You, the protagonist; an incredibly strong and intelligent criminal mastermind, have stolen a meteorite of incredible value. You are trying to escape through the suburban city, a city of consumerism and technology, using back alleys and shortcuts to your advantage. Throughout your progress, the police force, known as the *Lethal Reactive Force* (LRF) are here to bring “law and order” to the city, and are here to mute you by means of lethal force.

You have a faithful companion at your side, who acts as a fighting companion, and is impervious to pain. However, as his life force is connected to your existence, should you die, he will die too.

You must escape.

Main Goal:

Progress through all scenarios in numerical order.

Lose State:

N/A (Move to the next scenario after player death).

SETUP:

Begin with Scenario 1

The player...

Needs a character sheet

Cover the HP bar with the “Green” strip

Cover the Specials bar with the “Purple” strip

The DM...

Needs all enemy pieces.

SCENARIO LIST:

Scenario	Arrangement	Expected Outcome
Scenario 1	A size 10 Battalion	Can be taken down in one turn if lucky
Scenario 2	A size 8 Battalion with a Hunter	Easy to take down whilst taking very minimal damage (10 at most?). Easy to micromanage
Scenario 3	A size 8 Battalion with a Hunter and Berserker	A bit more difficult to handle. Requires thought before engaging, but still easy to take down.
Scenario 4	A size 14 Battalion with a Hunter and Berserker	Intimidating, and still requires thought. The player should begin to struggle. Expected to take 20 damage.
Scenario 5	A size 14 Battalion with 2 Hunters and Berserker	Difficult to handle. Expected to take 30 damage or more.
Scenario 6	A size 14 Battalion with 2 Hunters, 2 Berserkers, and a Captain	Almost impossible to complete, expected heavy damage (80)

PLAYER TURN:

If you are in the combat phase, do a *Combat Phase*. Your turn would end here.

ELSE, do the next Scenario and reset health (keep specials bar).

When setting up the next scenario, arrange enemy pieces where you wish (grouped and ungrouped enemies have a difference on attacks).

Calculate Specials Bar Value.

COMBAT PHASE:

At the beginning of the turn.

If the player has initiative for this round, the player begins the round with the first turn.

Otherwise, the DM begins the round.

Player attack:

Choose two areas that you wish to attack. One for yourself, one for your companion (they may be the same area or a different area).

An area is defined by either a single special unit, or an LRF battalion.

If the player uses a special item. The player skips his turn (but not the companion's) and uses the special.

Refer to *DM, Table of Rolls and Rules* for the special's effect.

Roll 1d10 for each normal attack.

The value rolled by the dice is the amount of *damage* you deal to the enemy. **For the DM**, deduct this value from the enemy health points for each attack.

Should this value exceed or equal the enemy's health points, then the enemy is defeated and thus removed from the game. This should be done immediately after the player's attack has been resolved (and, thus, will have influences in the enemy's attacks).

Resolve Enemy HP Values.

Enemy attack:

For the DM, if the most recent attack on this unit has been by the companion, their agro is drawn to the companion instead. End this unit's turn, thus dealing no damage.

Otherwise, attack the player.

Roll 1d10 for the Captain. This is the **Captain dice**.

Roll the respective die for each special unit attacking the player. This is a **special die**.

Roll 1d4 for the LRF Battalion as an entity attacking the player. This is a **horde die**.

For the Captain die, the total damage dealt to the player is the value of this die.

For each special die, the total damage dealt to the player by specials is the sum of these values.

For each horde die, if the entity rolled a 1, 2 or 3, the damage dealt is equal to $(1.0 \times \text{number of units})$, conversely if the entity rolled a 4, the damage dealt is equal to $(0 \times \text{number of units})$. The sum of these values is the total damage dealt to the player by units.

The sum of all specials and horde dice results is **the damage value** dealt to the player.

The player must then roll a 1d8 to mitigate any damage. This is **the defense value**.

Use these two values when resolving player HP values.

Revolve Player HP Values.

RESOLVE ENEMY HP VALUES (FOR DM USE ONLY):

If an enemy has taken a hit...

Deduct HP based on the damage roll ($HP = HP - \text{DAMAGE}$).

If the player is attacking an LRF Battalion, the number of Units in this battalion is equal to the HP value.

If their HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

Otherwise, set their HP to their new HP value using the supplied LRF Battalion counter.

RESOLVE PLAYER HP VALUES (FOR DM USE ONLY)

If the player has taken a hit...

Deduct HP based on the damage roll ($HP = HP - (\text{DAMAGE} - \text{DEFENSE})$), where $(\text{DAMAGE} - \text{DEFENSE}) \leq 0$.

If their HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

Otherwise, set their HP to their new HP value.

Adjust the HP bar appropriately (does not need to be 100% accurate, so long as the DM knows the player’s HP).

CALCULATE SPECIALS BAR VALUE:

At the end of each turn, increase the player’s special value by 20.

If the player’s special value is greater than or equal to 100, stop increasing the special value and the player may now cast “Power Fist”.

If the player uses their special, the player’s special value is reset to 0. Do not increase their special value for this turn only.

DM, TABLE OF ROLLS AND RULES:

Special Moves:

Use power fist skill	(10 + 1d10) Kill this many trash units and any specials caught in the impact. The captain takes half this damage, and is stunned for a turn.
----------------------	--

All Units:

Unit	Attack	Health Value
Player	1d10	100
Companion	1d10	N/A
An LRF Battalion	1d4 (deal 1 x unit count for damage if rolling 2, 3, or 4. Deal 0 damage if rolling a 1)	The sum of the number of units (for example, 10 units is 10 HP)
Hunter	1d12	4
Berserker	1d8	7
Captain	1d14	20

REVIEW:

From the feedback, it was evident that the Captain was almost impossible to defeat, which was the desired outcome. However, this did not make to be a fun gameplay experience – and especially in a game scenario where the player has to clear several rooms, it didn't feel right for the Captain to be an almost impossible enemy to kill, **given that the player would not be at full health like in these scenarios**. Having the Battalion do 0 damage on an off-roll did not feel suitable either. It simply felt awkward. Changes will be made going forward.

Players could, often, one shot Hunter units. Although this does seem too weak, it was interesting to see their priorities be switched when being faced with multiple Hunters and multiple Berserkers. As an experiment, they will be buffed.

The special move that the player can execute proved to be far too easy to forget, or otherwise be tedious to do every single turn. Thus, as this special move does not play a significant core gameplay experience, it will be removed from future plays.

Some of the rules also required polishing – some would be vague or not have sufficient information to come to a verdict, whilst other rules had been left out. This was also evident for the character sheet, thus a rework was necessary.

Rather than having a list of expected outcomes, it felt better to simply observe and see what feels right – after all, expecting to take 15 damage given a scenario may actually be unenjoyable.

The defense die was also forgotten in the playthrough, but playtesters agreed that this would only further complicate the game, and should be removed from the game.

Summary: Nerf the Captain, keep everything else the same, improve clarity with rules and equipment.

VERSION 2.0

CHANGELIST:

Descriptions	Changes
Captain nerfed	HP down to 15, damage down to 1d10
When rolling a 4 for combat with the LRF Battalion, the attack damage will instead be halved.	0x multiplier -> 0.5x multiplier
The Berserker and Hunter have been buffed.	4 -> 6HP for Hunter 6 -> 9HP for the Berserker
Rules have been rewritten for clarity	See highlights

INTRODUCTION:

You, the protagonist; an incredibly strong and intelligent criminal mastermind, have stolen a meteorite of incredible value. You are trying to escape through the suburban city, a city of consumerism and technology, using back alleys and shortcuts to your advantage. Throughout your progress, the police force, known as the *Lethal Reactive Force* (LRF) are here to bring “law and order” to the city, and are here to mute you by means of lethal force.

You have a faithful companion at your side, who acts as a fighting companion, and is impervious to pain. However, as his life force is connected to your existence, should you die, he will die too.

You must escape.

Main Goal:

Progress through all scenarios in numerical order.

Lose State:

N/A (Move to the next scenario after player death).

SETUP:

Begin with Scenario 1

The player...

Needs a character sheet

Cover the HP bar with the “Green” strip

The DM...

Needs all enemy pieces.

Have a sheet of paper ready to record HP values when necessary

SCENARIO LIST:

Scenario	Arrangement
Scenario 1	A size 10 Battalion
Scenario 2	A size 8 Battalion with a Hunter
Scenario 3	A size 8 Battalion with a Hunter and Berserker
Scenario 4	A size 14 Battalion with a Hunter and Berserker
Scenario 5	A size 14 Battalion with 2 Hunters and Berserker
Scenario 6	A size 14 Battalion with 2 Hunters, 2 Berserkers, and a Captain

PLAYER TURN:

If you are in the combat phase, do a *Combat Phase*. Your turn would end here.

ELSE, do the next Scenario immediately (keeping health values).

When setting up the next scenario, arrange enemy pieces where you wish (grouped and ungrouped enemies have a difference on attacks)

The player gains 10 HP at the end of each engagement.

COMBAT PHASE:

At the beginning of the turn.

If the player has initiative for this round, the player begins the round with the first turn.

Otherwise, the DM begins the round.

Player attack:

Choose two areas that you wish to attack. One for yourself, one for your companion (they may be the same area or a different area).

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An area is defined by either a single special unit, or an LRF battalion.

If the player uses a special item. The player skips his turn (but not the companion's) and uses the special.

Refer to *DM, Table of Rolls and Rules* for the special's effect.

Only the player can use special items. The companion can only attack.

Roll 1d10 for each normal attack.

The value rolled by the dice is the amount of *damage* you deal to the enemy. **For the DM**, deduct this value from the enemy health points for each attack **(on your sheet of paper).**

Should this value exceed or equal the enemy's health points, then the enemy is defeated and thus removed from the game. This should be done immediately after the player's attack has been resolved (and, thus, will have influences in the enemy's attacks).

Resolve Enemy HP Values.

Enemy attack:

For the DM, if the most recent attack on this unit has been by the companion, their agro is drawn to the companion instead. End this unit's turn, thus dealing no damage.

Otherwise, attack the player.

Roll 1d10 for the Captain. This is the **Captain die**.

Roll the respective die for each special unit attacking the player. This is a **special die**.

Roll 1d4 for the LRF Battalion as an entity attacking the player. This is a **horde die**.

For the Captain die, the total damage dealt to the player is the value of this die.

For each special die, the total damage dealt to the player by specials is the sum of these values.

For each horde die, if the entity rolled a 1, 2 or 3, the damage dealt is equal to (1.0 x number of units), conversely if the entity rolled a 4, the damage dealt is equal to (0.5 x number of units), rounded down to the nearest whole number. The sum of these values is the total damage dealt to the player by units.

The sum of all specials and horde dice results is **the damage value** dealt to the player.

Use these two values when resolving player HP values.

Revolve Player HP Values.

RESOLVE ENEMY HP VALUES (FOR DM USE ONLY):

If an enemy has taken a hit...

Deduct HP based on the damage roll (HP = HP – DAMAGE).

If the player is attacking an LRF Battalion, the number of Units in this battalion is equal to the HP value.

If the LRF Battalion's HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

Otherwise, set their HP to their new HP value using the supplied LRF Battalion counter.

If the player is attacking a Technoforcer, deduct the damage applied to their health.

Jot this value down on a piece of paper (to keep track of all values).

If the Technoforcer's HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

RESOLVE PLAYER HP VALUES (FOR DM USE ONLY)

If the player has taken a hit...

Deduct HP based on the damage roll ($HP = HP - DAMAGE$).

If their HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

Otherwise, set their HP to their new HP value. Jot this value down on a piece of paper (to keep track).

Adjust the HP bar appropriately to the new value (does not need to be 100% accurate, so long as the DM knows the player's true HP value and the player doesn't, to simulate playing a game).

DM, TABLE OF ROLLS AND RULES:

ALL UNITS:

Unit	Attack	Health Value
Player	1d10	100
Companion	1d10	N/A
A Single LRF Unit	1d4 (1 damage, depending on the roll)	1
An LRF Battalion	1d4 each (1 damage, depending on the roll)	The sum of the number of units (for example, 10 units is 10 HP)
Hunter	1d12	6
Berserker	1d8	9
Captain	1d10	15

REVIEW:

For this run, everything felt much more natural. Although the Captain wasn't very strong, he most certainly had a presence. However, at this point, the player had sustained considerable damage, and as such it may not have been a suitable depiction of what real play would be.

However, whilst the Hunter and Berserker felt suitably strong, given their descriptions, this did not match up well with the survivability of the player. More often than not, Hunters were left alive for 2 or more turns, making it increasingly frustrating with each turn and leaving the player far too vulnerable to attacks.

It wasn't clear what dice each player needed, so this clarity will be in place going forward into the next prototype.

PROTOTYPE 2 – SPAWNING ENEMIES

BRIEF:

Area of Concern	Proposed Prototype
When should hordes be spawned?	Have players go through a scenario, whilst attempting to randomly spawn hordes/specials using dice rolls
Questions to be answered	Are some combinations too OP? What dice do we use to spawn mobs and does this reflect appropriately with how frequently we want mobs to spawn? How often does a Captain spawn in a run? When does he spawn?
What does success look like?	1 to 2 specials with the horde should not feel intimidating. 3 to 4 specials with the horde. Can we keep these values consistent? A Captain should spawn 70% of the time for a given run, aiming to spawn later into the level rather than early (although if it's early,

VERSION 1.0

This prototype will focus on balance testing on spawn rates. We will be using dice rolls to determine the outcome of the probability of entities spawning. Although the primary focus is not game balancing of enemies, this aspect will most certainly influence spawn rates and should be a secondary focus instead.

The previous prototype was taken, with minor tweaks, with the addition of spawning rules.

INTRODUCTION:

You, the protagonist; an incredibly strong and intelligent criminal mastermind, have stolen a meteorite of incredible value. You are trying to escape through the suburban city, a city of consumerism and technology, using back alleys and shortcuts to your advantage. Throughout your progress, the police force, known as the *Lethal Reactive Force* (LRF) are here to bring "law and order" to the city, and are here to mute you by means of lethal force.

You have a faithful companion at your side, who acts as a fighting companion, and is impervious to pain. However, as his life force is connected to your existence, should you die, he will die too.

You must escape.

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Main Goal:

Survive all 10 rooms.

Lose State:

The player loses all health.

SETUP:

Layout all room tiles in order.

The player...

Needs a character sheet

Cover the HP bar with the “Green” strip

1d10,

The DM...

Needs all enemy pieces.

Have a sheet of paper ready to record HP values when necessary

1d4, 1d6, 1d8, 1d10, 1d12

PLAYER TURN:

If you are in the combat phase, do a *Combat Phase*. Your turn would end here.

Else, apply *Movement*.

Check for encounters

MOVEMENT:

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If you wish to move, you may either...

Progress to the next room. Flip the appropriate, adjacent room tile.

(For example, if you are moving from the 6th room to the 7th room, flip the 6th room tile down and the 7th room tile up.)

OR

Backtrack to a previous room

(For example, if you are moving from the 5th room to the 4th room, flip the 5th room tile down and the 4th room tile up.)

OR

Do nothing.

CHECK FOR ENCOUNTERS:

At the end of your turn, **the DM** will let you know when an encounter should occur. There are two types of encounters:

Enforcers: Neutralize Threats. Waves of enforcers will come to hunt you down, to stop your progression.

The Captain Has Arrived. The Captain has arrived, an “Encounter” is immediately triggered. This can only happen once per run.

If either of these encounters begin...

Place the appropriate enemies down, based on “*Roll for encounters*”. Roll a 1d6+10. This is the number of units in an LRF Battalion.

Roll 1d6 for initiative. If your roll is higher than the DMs, you begin the round. Otherwise, the DM begins.

Begin the combat phase.

COMBAT PHASE:

At the beginning of the turn.

If the player has initiative for this round, the player begins the round with the first turn.

Otherwise, the DM begins the round.

Player attack:

Choose two areas that you wish to attack. One for yourself, one for your companion (they may be the same area or a different area).

An area is defined by either a single special unit, or an LRF battalion.

If the player uses a special item. The player skips his turn (but not the companion's) and uses the special.

Refer to *DM, Table of Rolls and Rules* for the special's effect.

Only the player can use special items. The companion can only attack.

Roll 1d10 for each normal attack.

The value rolled by the dice is the amount of *damage* you deal to the enemy. **For the DM**, deduct this value from the enemy health points for each attack (on your sheet of paper).

Should this value exceed or equal the enemy's health points, then the enemy is defeated and thus removed from the game. This should be done immediately after the player's attack has been resolved (and, thus, will have influences in the enemy's attacks).

Resolve Enemy HP Values.

Enemy attack:

For the DM, if the most recent attack on this unit has been by the companion, their agro is drawn to the companion instead. End this unit's turn, thus dealing no damage.

Otherwise, attack the player.

Roll 1d10 for the Captain. This is the **Captain dice**.

Roll the respective die for each special unit attacking the player. This is a **special die**.

Roll 1d4 for the LRF Battalion as an entity attacking the player. This is a **horde die**.

For the Captain die, the total damage dealt to the player is the value of this die.

For each special die, the total damage dealt to the player by specials is the sum of these values.

For each horde die, if the entity rolled a 1, 2 or 3, the damage dealt is equal to (1.0 x number of units), conversely if the entity rolled a 4, the damage dealt is equal to (0.5 x number of units), rounded down to the nearest whole number. The sum of these values is the total damage dealt to the player by units.

The sum of all specials and horde dice results is **the damage value** dealt to the player.

Use these two values when resolving player HP values.

Revolve Player HP Values.

RESOLVE ENEMY HP VALUES (FOR DM USE ONLY):

If an enemy has taken a hit...

Deduct HP based on the damage roll (HP = HP – DAMAGE).

If the player is attacking an LRF Battalion, the number of Units in this battalion is equal to the HP value.

If the LRF Battalion's HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

Otherwise, set their HP to their new HP value using the supplied LRF Battalion counter.

If the player is attacking a Technoforcer, deduct the damage applied to their health.

Jot this value down on a piece of paper (to keep track of all values).

If the Technoforcer’s HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

RESOLVE PLAYER HP VALUES (FOR DM USE ONLY)

If the player has taken a hit...

Deduct HP based on the damage roll (HP = HP – DAMAGE).

If their HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

Otherwise, set their HP to their new HP value. Jot this value down on a piece of paper (to keep track).

Adjust the HP bar appropriately to the new value (does not need to be 100% accurate, so long as the DM knows the player’s true HP value and the player doesn’t, to simulate playing a game).

DM, TABLE OF ROLLS AND RULES

<i>Looting</i>				
For each turn, if this is the first time looting the room, then the player may wish to do so.				
It is not possible to re-loot a room.				
Core Actions	Dice	Occasions	Required Rolls	Results
<i>Roll for encounters</i>				
At the end of each turn, the player must “ <i>Check for encounters</i> ”, where there is a probability for the player to enter combat.				
Please roll for “ <i>Encounter</i> ”, “ <i>Specials Encounter</i> ” and “ <i>Captain Encounter</i> ” for 30 turns, and record this into a table.				
If a <i>Specials</i> roll results in a 3 rd of the same special, make this the other type instead (For example, Berserker would be a Hunter).				
This table will serve as a guidance to see when hordes will spawn.				
Encounter	1d6	Once per turn	6	Horde spawns
			1 – 5	No horde
Specials Encounter	4d12	Once per encounter	1 - 7	No specials

			8 & 9	Hunter
			10 & 11	Berserker
Captain Encounter	1d12	Once per room only	12	Captain. -1d12 roll for Specials Encounter.
			1 - 11	No Captain

All Units:

Unit	Attack	Health Value
Player	1d10	100
Companion	1d10	N/A
A Single LRF Unit	1d4 (1 damage, depending on the roll)	1
An LRF Battalion	1d4 each (1 damage, depending on the roll)	The sum of the number of units (for example, 10 units is 10 HP)
Hunter	1d12	4
Berserker	1d8	7
Captain	1d10	15

REVIEW:

All in all, the encounter rate was far too low – sometimes the player could go for many turns without facing combat, but then have to go through consecutive turns of brutal onslaught. In a similar vein, the Captain could, sometimes, spawn in the first few turns, making for a very interesting run. These issues need to be amended in the next iteration of the prototype. Special units would also spawn sparingly, thus changes must be made.

Issues with understanding rules have become an issue in this prototype, as well as some issues that were not noticed in previous prototypes either. Without the participation of a well-versed DM, it can become confusing very quickly.

The deduction to special rolls in the presence of the Captain did not make any sense either. Specials were almost non-existent with the presence of a Captain.

It became deathly apparent that rolling for encounters and spawns every turn was becoming very tedious. An excel sheet will be created in the future to help combat this issue.

VERSION 2.0

CHANGELOG:

Descriptions	Changes
Buffed specials units spawn rate. <i>Rather than 1 or 2 units per round, 2 to 3 units should be more expected.</i>	(4d12 -> 4d8)
Boost encounter rates, as well as applying special rules for consecutive no-spawns	Require 5 or 6 instead of just 6. If no spawn in 3 turns, spawn is guaranteed.
Removed -1d12 from Captain presence with special rolls.	-
Captain can no longer spawn at the start of the game	3 turn safeguard.
Rules have been rewritten for clarity	See highlights

INTRODUCTION:

You, the protagonist; an incredibly strong and intelligent criminal mastermind, have stolen a meteorite of incredible value. You are trying to escape through the suburban city, a city of consumerism and technology, using back alleys and shortcuts to your advantage. Throughout your progress, the police force, known as the *Lethal Reactive Force* (LRF) are here to bring “law and order” to the city, and are here to mute you by means of lethal force.

You have a faithful companion at your side, who acts as a fighting companion, and is impervious to pain. However, as his life force is connected to your existence, should you die, he will die too.

You must escape.

Main Goal:

Survive all 10 rooms.

Lose State:

The player loses all health.

SETUP:

Layout all room tiles in order.

The player...

Needs a character sheet

Cover the HP bar with the “Green” strip

1d10,

The DM...

Needs all enemy pieces.

LRF Battalion counter.

Have a sheet of paper ready to record HP values when necessary

1d4, 1d6, 1d8, 1d10, 1d12

PLAYER TURN:

If you are in the combat phase, do a *Combat Phase*. Your turn would end here.

Else, apply *Movement*.

Check for encounters

MOVEMENT:

If you wish to move, you may either...

Progress to the next room. Flip the appropriate, adjacent room tile.

(For example, if you are moving from the 6th room to the 7th room, flip the 6th room tile down and the 7th room tile up.)

OR

Backtrack to a previous room

(For example, if you are moving from the 5th room to the 4th room, flip the 5th room tile down and the 4th room tile up.)

OR

Do nothing.

CHECK FOR ENCOUNTERS:

At the end of your turn, **the DM** will let you know when an encounter should occur. There are two types of encounters:

Enforcers: Neutralize Threats. Waves of enforcers will come to hunt you down, to stop your progression.

The Captain Has Arrived. The Captain has arrived, an “Encounter” is immediately triggered. This can only happen once per run.

If either of these encounters occur...

Place the appropriate enemies down, based on “*Roll for encounters*”.

Roll a 1d6+10. This is the number of units in an LRF Battalion. Use the “LRF Battalion Count” sheet to indicate how many units are present.

These units may be placed in clusters or spread out. This should be clearly conveyed to the player, as this has an impact on the mechanics for area of effect attacks.

Roll 1d6 for initiative. If your roll is higher than the DMs, you start the round.

Begin the combat phase.

COMBAT PHASE:

At the beginning of the turn.

If the player has initiative for this round, the player begins the round with the first turn.

Otherwise, the DM begins the round.

Player attack:

Choose two areas that you wish to attack. One for yourself, one for your companion (they may be the same area or a different area).

An area is defined by either a single special unit, or an LRF battalion.

If the player uses a special item. The player skips his turn (but not the companion's) and uses the special.

Refer to *DM, Table of Rolls and Rules* for the special's effect.

Only the player can use special items. The companion can only attack.

Roll 1d10 for each normal attack.

The value rolled by the dice is the amount of *damage* you deal to the enemy. **For the DM**, deduct this value from the enemy health points for each attack (on your sheet of paper).

Should this value exceed or equal the enemy's health points, then the enemy is defeated and thus removed from the game. This should be done immediately after the player's attack has been resolved (and, thus, will have influences in the enemy's attacks).

Resolve Enemy HP Values.

Enemy attack:

For the DM, if the most recent attack on this unit has been by the companion, their agro is drawn to the companion instead. End this unit's turn, thus dealing no damage.

Otherwise, attack the player.

Roll 1d10 for the Captain. This is the **Captain dice**.

Roll the respective die for each special unit attacking the player. This is a **special die**.

Roll 1d4 for the LRF Battalion as an entity attacking the player. This is a **horde die**.

For the Captain die, the total damage dealt to the player is the value of this die.

For each special die, the total damage dealt to the player by specials is the sum of these values.

For each horde die, if the entity rolled a 1, 2 or 3, the damage dealt is equal to $(1.0 \times \text{number of units})$, conversely if the entity rolled a 4, the damage dealt is equal to $(0.5 \times \text{number of units})$, rounded down to the nearest whole number. The sum of these values is the total damage dealt to the player by units.

The sum of all specials and horde dice results is **the damage value** dealt to the player.

Use these two values when resolving player HP values.

Revolve Player HP Values.

RESOLVE ENEMY HP VALUES (FOR DM USE ONLY):

If an enemy has taken a hit...

Deduct HP based on the damage roll ($\text{HP} = \text{HP} - \text{DAMAGE}$).

If the player is attacking an LRF Battalion, the number of Units in this battalion is equal to the HP value.

If the LRF Battalion's HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

Otherwise, set their HP to their new HP value using the supplied LRF Battalion counter.

If the player is attacking a Technoforcer, deduct the damage applied to their health.

Jot this value down on a piece of paper (to keep track of all values).

If the Technoforcer's HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

RESOLVE PLAYER HP VALUES (FOR DM USE ONLY)

If the player has taken a hit...

Deduct HP based on the damage roll (HP = HP – DAMAGE).

If their HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

Otherwise, set their HP to their new HP value. Jot this value down on a piece of paper (to keep track).

Adjust the HP bar appropriately to the new value (does not need to be 100% accurate, so long as the DM knows the player’s true HP value and the player doesn’t, to simulate playing a game).

DM, TABLE OF ROLLS AND RULES

<i>Looting</i>				
For each turn, if this is the first time looting the room, then the player may wish to do so.				
It is not possible to re-loot a room.				
Core Actions	Dice	Occasions	Required Rolls	Results
<i>Roll for encounters</i>				
At the end of each turn, the player must “ <i>Check for encounters</i> ”, where there is a probability for the player to enter combat.				
Please roll for “ <i>Encounter</i> ”, “ <i>Specials Encounter</i> ” and “ <i>Captain Encounter</i> ” for 30 turns, and record this into a table.				
If a <i>Specials</i> roll results in a 3 rd of the same special, make this the other type instead (For example, Berserker would be a Hunter).				
This table will serve as a guidance to see when hordes will spawn.				
PLEASE USE THE ATTACHED EXCEL SPREADSHEET – IT WILL DO EVERYTHING FOR YOU.				
Encounter	1d6	Once per turn	5, 6	Horde spawns
			1 - 4 OR no spawns since 3 turns	No horde

Specials Encounter	4d8	Once per encounter	1 – 4	No specials
			5 & 6	Hunter
			7 & 8	Berserker
Captain Encounter	1d12	Once per room only, after the first 3 turns have passed.	12	Captain. Immediately trigger a horde.
			1 - 11	No Captain

All Units:

Unit	Attack	Health Value
Player	1d10	100
Companion	1d10	N/A
A Single LRF Unit	1d4 (1 damage, depending on the roll)	1
An LRF Battalion	1d4 each (1 damage, depending on the roll)	The sum of the number of units (for example, 10 units is 10 HP)
Hunter	1d12	4
Berserker	1d8	7
Captain	1d10	15

REVIEW:

The player's health was driven to low in a few examples during the later stages. However, with the introduction of item drops, hopefully some of these issues can be mitigated as the player has more support items.

Overall, this was very close to the expected play experience – everything felt natural, from the spawning and the enemy's health. The LRF Battalion could use some buffing, however this opinion was irregular between all playtesters. Further action is required on this front.

PROTOTYPE 3 – ADDING CHESTS

BRIEF:

Area of Concern	Proposed Prototype
Item drop rate	Players have the choice to find loot. The player should roll the dice if they want to loot the room, only if the option to loot the room is available.
Questions to be answered	Are spawn rates consistent? How often does a player leave loot behind? How many chests do we want per room? Are items too strong?
What does success look like?	2 to 3 items per chest. Items should feel like they have a marginal impact on the game – in some ways game changing when used correctly, however the game should not feel too item-centric..

VERSION 1.0

For this prototype, we want to test for “When should hordes be spawned”, and “Item drop rate”, as these two aspects directly influence each other – having more items dropped can make hordes easier to deal with. Conversely, if the horde is too large, items can help to mitigate losses.

Getting a good balance for the two will prove difficult – we don’t want items to be few and far between, but at the same time, if the player has too many items to play with, the game can become either too easy or too item-focused, making attacking somewhat irrelevant.

We have taken the format from the previous prototype, and added a looting mechanic to the system.

Any changes have been highlighted to avoid the need to re-read all the rules.

INTRODUCTION:

You, the protagonist; an incredibly strong and intelligent criminal mastermind, have stolen a meteorite of incredible value. You are trying to escape through the suburban city, a city of consumerism and technology, using back alleys and shortcuts to your advantage. Throughout your progress, the police force, known as the *Lethal Reactive Force* (LRF) are here to bring “law and order” to the city, and are here to mute you by means of lethal force.

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You have a faithful companion at your side, who acts as a fighting companion, and is impervious to pain. However, as his life force is connected to your existence, should you die, he will die too.

You must escape.

Main Goal:

Survive all 10 rooms.

Lose State:

The player loses all health.

SETUP:

Layout all room tiles in order.

The player...

Needs a character sheet

Cover the HP bar with the “Green” strip

1d10, 1d4, 1d6.

The DM...

Needs all enemy pieces.

Needs all loot pieces (bombs, stasis bombs, etc).

LRF Battalion counter.

Have a sheet of paper ready to record HP values when necessary

1d4, 1d6, 1d8, 1d10, 1d12.

PLAYER TURN:

If the player wants to heal, *Restore Health* if the player has a med-kit. Your turn would end here **if** you are not already in a *Combat Phase*.

If you are in the combat phase, do a *Combat Phase*. Your turn would end here.

OTHERWISE

If the player has yet to do so in this room, the player may choose to *loot the room* for some consumables.

Else, apply *Movement*.

Check for encounters

LOOT THE ROOM:

If you have yet to do so and wish to loot the room, roll 3d6. The outcome of your dice rolls will determine whether loot chests will contain loot.

This will be confirmed by **the DM**.

Should a loot chest contain loot, roll a 1d4 for each loot chest to determine what you gain from the chest.

You may only have one healing item at a time.

You may now *Exchange Loot*.

If you have already looted the room, and items remain in the room that you are in, you may *Exchange Loot*.

Exchanging Loot:

If you have inventory slots open, you may take any amount of item until your inventory fills up.

If your inventory fills up, you may either choose to...

... **Leave the item**, but you may return to this chest later to get the item.

... **Discard an item to acquire a new one**, this will swap the item with the one you have acquired.

MOVEMENT:

If you wish to move, you may either...

Progress to the next room. Flip the appropriate, adjacent room tile.

(For example, if you are moving from the 6th room to the 7th room, flip the 6th room tile down and the 7th room tile up.)

OR

Backtrack to a previous room

(For example, if you are moving from the 5th room to the 4th room, flip the 5th room tile down and the 4th room tile up.)

OR

Do nothing.

CHECK FOR ENCOUNTERS:

At the end of your turn, **the DM** will let you know when an encounter should occur. There are two types of encounters:

Enforcers: Neutralize Threats. Waves of enforcers will come to hunt you down, to stop your progression.

The Captain Has Arrived. The Captain has arrived, an “Encounter” is immediately triggered. This can only happen once per run.

If either of these encounters occur...

Place the appropriate enemies down, based on “*Roll for encounters*”.

Roll a 1d6+10. This is the number of units in an LRF Battalion. Use the “*LRF Battalion Count*” sheet to indicate how many units are present.

These units may be placed in clusters or spread out. This should be clearly conveyed to the player, as this has an impact on the mechanics for area of effect attacks.

Roll 1d6 for initiative. If your roll is higher than the DMs, you start the round.

Begin the combat phase.

COMBAT PHASE:

At the beginning of the turn.

If the player has initiative for this round, the player begins the round with the first turn.

Otherwise, the DM begins the round.

Player attack:

Choose two areas that you wish to attack. One for yourself, one for your companion (they may be the same area or a different area).

An area is defined by either a single specials unit, or an LRF battalion.

If the player uses a special item. The player skips his turn (but not the companion's) and uses the special.

Refer to *DM, Table of Rolls and Rules* for the special's effect.

Only the player can use special items. The companion can only attack.

Roll 1d10 for each normal attack.

The value rolled by the dice is the amount of *damage* you deal to the enemy. **For the DM**, deduct this value from the enemy health points for each attack (on your sheet of paper).

Should this value exceed or equal the enemy's health points, then the enemy is defeated and thus removed from the game. This should be done immediately after the player's attack has been resolved (and, thus, will have influences in the enemy's attacks).

Resolve Enemy HP Values.

Enemy attack:

For the DM, if the most recent attack on this unit has been by the companion, their agro is drawn to the companion instead. End this unit's turn, thus dealing no damage.

Otherwise, attack the player.

Roll 1d10 for the Captain. This is the **Captain die**.

Roll the respective die for each special unit attacking the player. This is a **special die**.

Roll 1d4 for the LRF Battalion as an entity attacking the player. This is a **horde die**.

For the Captain die, the total damage dealt to the player is the value of this die.

For each special die, the total damage dealt to the player by specials is the sum of these values.

For each horde die, if the entity rolled a 1, 2 or 3, the damage dealt is equal to (1.0 x number of units), conversely if the entity rolled a 4, the damage dealt is equal to (0.5 x number of units), rounded down to the nearest whole number. The sum of these values is the total damage dealt to the player by units.

The sum of all specials and horde dice results is **the damage value** dealt to the player.

Use these two values when resolving player HP values.

Revolve Player HP Values.

RESOLVE ENEMY HP VALUES (FOR DM USE ONLY):

If an enemy has taken a hit...

Deduct HP based on the damage roll (HP = HP – DAMAGE).

If the player is attacking an LRF Battalion, the number of Units in this battalion is equal to the HP value.

If the LRF Battalion's HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

Otherwise, set their HP to their new HP value using the supplied LRF Battalion counter.

If the player is attacking a Technoforcer, deduct the damage applied to their health.

Jot this value down on a piece of paper (to keep track of all values).

If the Technoforcer's HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

RESOLVE PLAYER HP VALUES (FOR DM USE ONLY)

If the player has taken a hit...

Deduct HP based on the damage roll ($HP = HP - DAMAGE$).

If their HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

Otherwise, set their HP to their new HP value. Jot this value down on a piece of paper (to keep track).

Adjust the HP bar appropriately to the new value (does not need to be 100% accurate, so long as the DM knows the player's true HP value and the player doesn't, to simulate playing a game).

DM, TABLE OF ROLLS AND RULES

Looting

For each turn, if this is the first time looting the room, then the player may wish to do so.

It is not possible to re-loot a room.

Core Actions	Dice	Occasions	Required Rolls	Results
Looting	3d6	Once per room	5 – 6	You have a chance at loot.
			1 – 4	No loot
Loot Tables	1d4	Once per loot chest	1 – 4	<i>Refer to Loot Tables for outcomes.</i>
<p><i>Roll for encounters</i></p> <p>At the end of each turn, the player must “<i>Check for encounters</i>”, where there is a probability for the player to enter combat.</p> <p>Please roll for “<i>Encounter</i>”, “<i>Specials Encounter</i>” and “<i>Captain Encounter</i>” for 30 turns, and record this into a table.</p> <p>If a Specials roll results in a 3rd of the same special, make this the other type instead (For example, Berserker would be a Hunter).</p> <p>This table will serve as a guidance to see when hordes will spawn.</p> <p>PLEASE USE THE ATTACHED EXCEL SPREADSHEET – IT WILL DO EVERYTHING FOR YOU.</p>				
Encounter	1d6	Once per turn	5, 6	Horde spawns
			1 - 4 OR no spawns since 3 turns	No horde
Specials Encounter	4d8	Once per encounter	1 – 4	No specials
			5 & 6	Hunter
			7 & 8	Berserker
Captain Encounter	1d12	Once per room only, after the first 3 turns have passed.	12	Captain. Immediately trigger a horde.
			1 - 11	No Captain

Loots Tables (1d4):

Loot Tables	Required Rolls	Results
Bomb	1	Give the player a bomb
Stasis grenade	2	Give the player a stasis grenade
Deployable shield	3	Give the player a deployable shield
Medical supplies	4	Give the player medical supplies

Special Effects:

Powers	Results
Use bomb	(10 + 1d10) Kill this many trash units and any specials caught in the impact. The captain takes half this damage, and is stunned for a turn.
Use stasis grenade	(10 +1d10) Freeze this many LRF units Any specials caught in the blast are frozen if this value is greater than 12. The Captain is frozen if this value is greater than 15. Frozen units are frozen for two turns.
Use deployable shield	Deploys a shield that protects against damage for the player just for the room, for 2 turns. (destroyed by berserkers or the captain after the end of the turn that they have been deployed if they are not killed)
Use medical supplies	Heals the player to 80% (or to 100%, if the player is above 80%). Consumes a turn.

All Units:

Unit	Attack	Health Value
Player	1d10	100
Companion	1d10	N/A
A Single LRF Unit	1d4 (1 damage, depending on the roll)	1
An LRF Battalion	1d4 each (1 damage, depending on the roll)	The sum of the number of units (for example, 10 units is 10 HP)
Hunter	1d12	4
Berserker	1d8	7
Captain	1d10	15

REVIEW:

The safeguard from Captain for the first 3 turns proved to be pointless, as this would soon be expended when entering the second room. This should be extended for the next iteration for the game.

Loot as a term has the connotation of gaining treasure, and as such it has become necessary to rename our loot drops to pickups.

These loot drops did not feel relevant to gameplay at all. Oftentimes, players were only receiving 1 item per chest. These players often would then go on to skip future chests in favour of just moving on. However, players enjoyed rolling the dice in order to receive items, as it felt like it was something they gained through being rewarded. This further negates the necessity of making a pre-generated loot table (see, encounters spawn table for an example).

Bombs were also insanely strong – one bomb can almost instantly kill a Captain. This needs to be revisited.

It was also not clear that bombs had Area of Effect abilities, attacking any enemies that have been clumped together by the DM.

VERSION 2.0

CHANGELIST:

Descriptions	Changes
Buffed pickup spawn rate, <i>so that it feels more relevant to gameplay.</i>	(33% -> 50%)
Buffed safeguard from Captain spawns	3 -> 5 turns
Renaming loot to pickups	
Nerfs to bombs, power fist, and stasis grenades. <i>Kills were instantaneous. That's not good.</i>	(10+1d10 -> 6 +1d6 across the board)

INTRODUCTION:

You, the protagonist; an incredibly strong and intelligent criminal mastermind, have stolen a meteorite of incredible value. You are trying to escape through the suburban city, a city of consumerism and technology, using back alleys and shortcuts to your advantage. Throughout your progress, the police force, known as the *Lethal Reactive Force* (LRF) are here to bring “law and order” to the city, and are here to mute you by means of lethal force.

You have a faithful companion at your side, who acts as a fighting companion, and is impervious to pain. However, as his life force is connected to your existence, should you die, he will die too.

You must escape.

Main Goal:

Survive all 10 rooms.

Lose State:

The player loses all health.

SETUP:

Layout all room tiles in order.

The player...

Needs a character sheet

Cover the HP bar with the “Green” strip

1d10, 1d4, 1d6.

The DM...

Needs all enemy pieces.

Needs all loot pieces (bombs, stasis bombs, etc).

LRF Battalion counter.

Have a sheet of paper ready to record HP values when necessary

1d4, 1d6, 1d8, 1d10, 1d12.

PLAYER TURN:

If the player wants to heal, *Restore Health* if the player has a med-kit. Your turn would end here **if** you are not already in a *Combat Phase*.

If you are in the combat phase, do a *Combat Phase*. Your turn would end here.

OTHERWISE

If the player has yet to do so in this room, the player may choose to *loot the room* for some consumables.

Else, apply *Movement*.

Check for encounters

LOOT THE ROOM:

If you have yet to do so and wish to loot the room, roll 3d6. The outcome of your dice rolls will determine whether chests will contain consumable pickups.

This will be confirmed by **the DM**.

Should a chest contain a consumable pickup, roll a 1d4 for each chest to determine what you gain from the chest.

You may only have one healing item at a time.

You may now *Organize your Inventory*.

If you have already looted the room, and items remain in the room that you are in, you may *Exchange Loot*.

Organize your Inventory:

If you have inventory slots open, you may take any amount of item until your inventory fills up.

If your inventory fills up, you may either choose to...

... **Leave the item**, but you may return to this chest later to get the item.

... **Discard an item to acquire a new one**, this will swap the item with the one you have acquired.

MOVEMENT:

If you wish to move, you may either...

Progress to the next room. Flip the appropriate, adjacent room tile.

(For example, if you are moving from the 6th room to the 7th room, flip the 6th room tile down and the 7th room tile up.)

OR

Backtrack to a previous room

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(For example, if you are moving from the 5th room to the 4th room, flip the 5th room tile down and the 4th room tile up.)

OR

Do nothing.

CHECK FOR ENCOUNTERS:

At the end of your turn, **the DM** will let you know when an encounter should occur. There are two types of encounters:

Enforcers: Neutralize Threats. Waves of enforcers will come to hunt you down, to stop your progression.

The Captain Has Arrived. The Captain has arrived, an “Encounter” is immediately triggered. This can only happen once per run.

If either of these encounters occur...

Place the appropriate enemies down, based on “*Roll for encounters*”.

Roll a 1d6+10. This is the number of units in an LRF Battalion. Use the “*LRF Battalion Count*” sheet to indicate how many units are present.

These units may be placed in clusters or spread out. This should be clearly conveyed to the player, as this has an impact on the mechanics for area of effect attacks.

Roll 1d6 for initiative. If your roll is higher than the DMs, you start the round.

Begin the combat phase.

COMBAT PHASE:

At the beginning of the turn.

If the player has initiative for this round, the player begins the round with the first turn.

Otherwise, the DM begins the round.

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Player attack:

Choose two areas that you wish to attack. One for yourself, one for your companion (they may be the same area or a different area).

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If the player uses a special item. The player skips his turn (but not the companion's) and uses the special.

Refer to *DM, Table of Rolls and Rules* for the special's effect.

Only the player can use special items. The companion can only attack.

Roll 1d10 for each normal attack.

The value rolled by the dice is the amount of *damage* you deal to the enemy. **For the DM**, deduct this value from the enemy health points for each attack (on your sheet of paper).

Should this value exceed or equal the enemy's health points, then the enemy is defeated and thus removed from the game. This should be done immediately after the player's attack has been resolved (and, thus, will have influences in the enemy's attacks).

Resolve Enemy HP Values.

Enemy attack:

For the DM, if the most recent attack on this unit has been by the companion, their agro is drawn to the companion instead. End this unit's turn, thus dealing no damage.

Otherwise, attack the player.

Roll 1d10 for the Captain. This is the **Captain die**.

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Roll 1d4 for the LRF Battalion as an entity attacking the player. This is a **horde die**.

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For each special die, the total damage dealt to the player by specials is the sum of these values.

For each horde die, if the entity rolled a 1, 2 or 3, the damage dealt is equal to (1.0 x number of units), conversely if the entity rolled a 4, the damage dealt is equal to (0.5 x number of units), rounded down to the nearest whole number. The sum of these values is the total damage dealt to the player by units.

The sum of all specials and horde dice results is **the damage value** dealt to the player.

Use these two values when resolving player HP values.

Revolve Player HP Values.

RESOLVE ENEMY HP VALUES (FOR DM USE ONLY):

If an enemy has taken a hit...

Deduct HP based on the damage roll (HP = HP – DAMAGE).

If the player is attacking an LRF Battalion, the number of Units in this battalion is equal to the HP value.

If the LRF Battalion's HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

Otherwise, set their HP to their new HP value using the supplied LRF Battalion counter.

If the player is attacking a Technoforcer, deduct the damage applied to their health.

Jot this value down on a piece of paper (to keep track of all values).

If the Technoforcer's HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

RESOLVE PLAYER HP VALUES (FOR DM USE ONLY)

If the player has taken a hit...

Deduct HP based on the damage roll (HP = HP – DAMAGE).

If their HP is equal or below 0, this is a killing blow, thus this unit is removed from play.

Otherwise, set their HP to their new HP value. Jot this value down on a piece of paper (to keep track).

Adjust the HP bar appropriately to the new value (does not need to be 100% accurate, so long as the DM knows the player’s true HP value and the player doesn’t, to simulate playing a game).

DM, TABLE OF ROLLS AND RULES

<i>Looting</i>				
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It is not possible to re-loot a room.				
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Loot Tables	1d4	Once per loot chest	1 – 4	<i>Refer to Loot Tables for outcomes.</i>
<i>Roll for encounters</i>				
At the end of each turn, the player must “ <i>Check for encounters</i> ”, where there is a probability for the player to enter combat.				
Please roll for “ <i>Encounter</i> ”, “ <i>Specials Encounter</i> ” and “ <i>Captain Encounter</i> ” for 30 turns, and record this into a table.				
If a <i>Specials</i> roll results in a 3 rd of the same special, make this the other type instead (For example, Berserker would be a Hunter).				
This table will serve as a guidance to see when hordes will spawn.				
PLEASE USE THE ATTACHED EXCEL SPREADSHEET – IT WILL DO EVERYTHING FOR YOU.				
Encounter	1d6	Once per turn	5, 6	Horde spawns

			1 – 4 OR no spawns since 3 turns	No horde
Specials Encounter	4d8	Once per encounter	1 - 4	No specials
			5 & 6	Hunter
			7 & 8	Berserker
Captain Encounter	1d12	Once per room only, after the first 5 turns have passed.	12	Captain.
			1 - 11	No Captain

Loots Tables (1d4):

Loot Tables	Required Rolls	Results
Bomb	1	Give the player a bomb
Stasis grenade	2	Give the player a stasis grenade
Deployable shield	3	Give the player a deployable shield
Medical supplies	4	Give the player medical supplies

Special Effects:

Powers	Results
Use bomb	Hits a cluster of enemies (i.e: enemies placed together), and only enemies caught in the blast may take damage. (6 + 1d6) Kill this many trash units and any specials caught in the impact. The captain takes half this damage (rounded up to the nearest whole number), and is stunned for a turn.
Use stasis grenade	Hits all enemies on the board.

	<p>(6 +1d6) Freeze this many LRF units</p> <p>Any specials caught in the blast are frozen if this value is greater than 8.</p> <p>The Captain is frozen if this value is greater than 10.</p> <p>Frozen units are frozen for two turns.</p>
Use deployable shield	<p>Deploys a shield that protects against damage for the player just for the room, for 2 turns.</p> <p>(destroyed by berserkers or the captain after the end of the turn that they have been deployed if they are not killed)</p>
Use medical supplies	<p>Heals the player to 80% (or to 100%, if the player is above 80%). Consumes a turn.</p>

All Units:

Unit	Attack	Health Value
Player	1d10	100
Companion	1d10	N/A
A Single LRF Unit	1d4 (1 damage, depending on the roll)	1
An LRF Battalion	1d4 each (1 damage, depending on the roll)	The sum of the number of units (for example, 10 units is 10 HP)
Hunter	1d12	4
Berserker	1d8	7
Captain	1d10	15

REVIEW:

The added safeguard to the Captain felt balanced, as players who were re-doing the playtest commented on the expected feeling of safety from the beginning, but then feeling more invested in their survival as the Captain later entered the battle.

The buffs to items helped to compliment this – often players would have a full inventory, and opt to abandon chests later on to rush to the end, but when they had consumed items they would go out of their way to go to previous rooms to re-loot items for the extra safety net for future engagements.

The nerfs to items felt justified too – players were more inclined to liberally expend items, rather than saving them for clutch engagements, as they were both more easily accessible but less impactful (in a good way, as these items would fill a more utilitarian role rather than a game-changing role). Players were also more inclined to use bombs on clusters of enemies, rather than saving them for annihilating tough units.

REFLECTION:

The journey to creating prototypes is an arduous one – it's clear that the more complicated the mechanic, the more difficult it becomes to try to create a simple rule set that doesn't overwhelm the playtesters. Finding a good middle ground for balancing can be an issue as well – it may work for some runs but then for others, a stroke of luck can make some moves become too overpowered.

Finding playtesters can also be a trouble too, especially so when a single play session can last up to 40 minutes, making it a lengthy process when only minor tweaks are necessary. Due to this, it may be advised to make modifications on the fly rather than redoing the playtesting from the beginning.

Creating prototypes for games that require real-time commands can be a very strange concept. Translating these real-time commands onto a paper form may require a turn-based approach instead.

For future work, consideration would be taken into simplifying the ruleset even further – it can be daunting and sometimes intimidating to be faced with pages of text when trying to understand the nuances of a game, to the point where players either refuse to read the rules or otherwise require more guidance than usual. Oftentimes, players will re-read the rules and immediately understand the concept, and thus it is most likely not a flaw in the wording but rather the lengthy ruleset and thus the retention of these rules for the player.

APPENDIX

ASSETS

Character Sheet V1.0



