# **ELARU**

by Uprise Entertainment

Revision: 0.9

# Contents

Contents	2
Overview	4
Genre	4
Theme	4
Setting	4
Core Gameplay Mechanics (Brief)	4
Targeted platforms	5
Monetization model (Brief/Document)	5
Project Scope	5
Influences (Brief)	6
The elevator pitch	7
Project Description	7
What sets this project apart?	7
Core Gameplay Mechanics (Detailed)	7
Story and Gameplay	11
Story (Brief)	11
Story (Detailed)	11
Tutorial	11
Tutorial (mid-game / guided quests)	12
Main questline	12
1. The lost key	12
2. Eliminate the president	12
3. The fake	12
4. Unlock the plans	12
5. Follow the general	12
6. Sabotage	13
7. Prevent	13
8. Kill the president	13
9. Destroy the robot	13
Main questline stretch goal:	13
(10. No loose ends)	13
(11. Eliminate)	14
Main gameplay	14
Assets Needed	15

2D	15
3D	15
Sound	17
Code	19
Animation	20
Schedule	22
Programmers week 1	22
Artists week 1	23
Programmers week 2	23
Artists week 2	24
Programmers week 3	25
Artists week 3	26
Programmers week 4	26
Artists week 4	27
Programmers week 5	27
Artists week 5	28
Programmers week 6	28
Artists week 6	28
Programmers week 7	29
Artists week 7	29
Programmers week 8	29
Artists week 8	29
Programmers week 9	30
Artists week 9	30
Programmers week 10	30
Artists week 10	30
Programmers week 11	30
Artists week 11	30

## Overview

#### Genre

- First Person
- Stealth
- Virtual Reality

## Theme

- Dark
- Future
- Suspense
- Sci-fi

## Setting

- Dystopian
- Cyberpunk/ Sci-Fi
- Crime haven
- Abandoned crime-ridden city
- Western style civilization

# Core Gameplay Mechanics (Brief)

- 2 upgradeable weapons
  - Upgradable close-ranged weapon (sword)
  - Upgradable long-ranged weapon (gun)
- **Throwable objects** (found around the environment)
- Companion
  - Follows the player and acts as the minimap
- Player
  - Scaleable level
  - Sneak around be careful not to alarm nearby Al
  - Has two locomotion types readily available (tele-dash and climbing)
  - Time briefly slows down when an enemy sees you
- 1 unique district containing distinct architectural characteristics and inhabitants
- 4 types of robot Al
  - Deaf robots (long-ranged)
  - Flying blind robots (kamikaze)

- Boss (idle (unanimated), large building like robot)
- Companion robot
- Enemies briefly pause after you hit them (replacement for screen shake)

#### - Quests

- Quest are obtained in the player base
- Quest objectives are described by text and markers
- Quests have multiple objectives

#### - Saving

- Saving and loading is done in the background when the player dies or finishes a quest.

#### - Environment

- Collectables locked behind mini games
- Collectables in chests for encouraging world exploration
- Obstacles that can be unlocked by your companion's ability
- Fast travel to the player base is done via a manhole cover in the city

#### End game

- Climb a giant building like robot (the boss)
- Defeat the boss (prevent the boss from awakening = final main quest)
- Complete enough quests to get the end boss quest

## - Stretch goals

Robots can be dismembered

## Targeted platforms

- Windows
- HTC VIVE

# Monetization model (Brief/Document)

- Pay once (Pay to play)

# **Project Scope**

- Time Scale: 10 weeks
- Potential Steam release: \$100.00 USD Product Submission Fee for Steam Direct (dependant on the state of the project)
- 8 members (5 programmers and 3 artists)
- Programmers:
- 1. Aaron De Belder

Al Programmer

#### 2. Arno De Keukelaere

Project Lead & UX / Gameplay Programmer

#### 3. Dieter Tack

Lead Programmer

## 4. Niels Rethy

Gameplay Programmer & Al programmer

#### 5. Sam Van de Walle

Assistant Producer & Gameplay Programmer

- Artists:

## 6. Bram Delaey

Lead Artist

#### 7. Matthias Degroote

Prop / Environment Artist

## 8. Mieke Yperman

Character Artist / Animator

## Influences (Brief)

#### - Robo Recall

Type: Video GameQuality reference

## - Budgets Cuts

- Type: Video game

- Inspiration: VR stealth gameplay elements

#### - Dishonored

- Type: Video game

- Inspiration: Weapons, atmosphere and stealth gameplay elements

## - The Legend of Zelda: Breath of the Wild

- Type: Video game

- Inspiration: The style of the open world gameplay

#### - Metal Gear Solid Phantom Pain

- Type: Video Game

- Inspiration: Enemy Detection (slow down time)

#### - NieR:Automata

- Type: Video Game

- Inspiration: Save point system and robot companion

## Crysis Warhead

- Type: Video Game

- Inspiration: Idea for robots

## The elevator pitch

A stealth action VR game where you play an android insurgent sent to liberate an abandoned city of it's infestation of criminal robots who have set up their base of operations there.

## **Project Description**

The criminal robots have learnt of your arrival and are patrolling the streets in search of you. Plan ahead and put together an arsenal before you go on various stealth focused quests with a variety of different objectives. The difficulty is based on how well you put together your own inventory in preparation for these excursions.

Help the local rebellion to gain a tactical advantage over the criminal robots by upgrading your arsenal of weapons and unlocking your companion's abilities.

Traverse the city by using the: underground sewer system, streets, vents and even the rooftops all whilst trying to stay out of sight.

Escape or assassinate your pursuers by learning their weaknesses to use against them.

## What sets this project apart?

- Virtual reality
- Open world stealth

## Core Gameplay Mechanics (Detailed)

- 2 Upgradeable weapons

(stored/held on/by the player) (upgrades can be applied in the player base)

- Close-ranged weapon: longsword (lightsaber-like) energy blade
  - Damages enemies
    - **Can be upgraded** to cause more damage
  - Runs out of energy
    - **Can be upgraded** to recharge faster
    - Charges gradually whilst off
  - Generates sound when activated
    - Can be upgraded to lessen the generated sound
- Long-ranged weapon
  - Can be changed into 3 types via the upgrade station
    - Energy (regular)
      - Damages enemies
        - **Can be upgraded** to cause more damage
      - Can overheat (requires recharge/cooldown)

- **Can be upgraded** to recharge faster
- Can be fired from far away
  - Can be upgraded to shoot further
- Light (generates optical feedback detected by deaf enemies)
  - Causes light to be generated at a location (eg.: flashbang)
    - **Can be upgraded** to travel further (brightness)
  - Can overheat (requires recharge/cooldown)
    - Can be upgraded to recharge faster
  - Can be fired from far away
    - Can be upgraded to shoot further
- Sound (generates audio feedback detected by blind enemies)
  - Causes sound to be played at a location
    - **Can be upgraded** to travel further (volume)
  - Can overheat (requires recharge/cooldown)
    - Can be upgraded to recharge faster
  - Can be fired from far away
    - Can be upgraded to shoot further
- **Throwable objects** (found around the environment)
  - Generate sound
  - Weight based damage and sound
- Companion
  - Al controlled
  - Teleports to player if too far away
  - Vive controller menu button:
    - Projectable world map (physical button on the robot)
      - Quest marker
      - World map
    - Show detected enemies through buildings (activated by player)
- Player
  - Scaleable level
    - Level via quests = (level 1, 2, 3,...)
    - Less sound generated whilst moving
  - Sneak around be careful not to alarm nearby Al
  - Locomotion
    - Tele-dash (Teleport with dashing "animation" = lerping position)
    - Climbing
    - Time briefly slows down when an enemy sees you, if you fail to run away in the given period of time, locomotion is disabled and you're forced to fight the enemy to the death (punishment for bad stealth)
  - Collectable trophies can be placed in your base
- 1 unique districts containing distinct architectural characteristics and inhabitants

## - 4 types of robot Al

- Deaf robots
  - Performs patrols along a specified path
  - Searches for visual signs of the player
  - Long-ranged weapon (sniper)
  - Makes a lot of noise whilst moving
- Blind flying robots
  - Performs patrols along a specified path
  - Listens for sounds made by the player
  - Kamikaze, launches itself towards a noise source
- Companion robot
  - Follows the player
  - Stays in the vicinity of the player
- Boss robot
  - Idle, large structure-like robot
  - Can be climbed
  - Complete mini-games to beat the game
- Enemies briefly pause after you hit them (replacement for screen shake)
- Enemies grant experience
- Quests
  - Quest are obtained in the player base
  - Quests are described by text and marker on the minimap
  - Quests have multiple objectives
    - Multiple objective types
      - Tutorial (Subtle basic quests that explain the game)
      - Go (go to a location)
      - Kill

(Kill a specific robot and bring back proof of the kill), (kill with certain weapon)

- Collect/Steal
  - (Collect or kill, ... without being seen)
- Follow/Stealth

(follow someone without being seen), (go to a location and take an item and bring it back), (upgrade chip for weapons, deaf = sound reduction)

- Sabotage/Destroy property
- Climb
- Mini game

- Delivery quest (Go to location and leave an item behind)
- Boss

#### - Saving

- Saving is done in the backgrounds. When you finish a quest, the game saves. When you die the game saves as well.

#### - Environment

- Collectables locked behind mini games
- Chests (opened with a key (collectable/reward from quest))
  - Collectables
  - Experience (adds large bonus)
  - Quest (eg.: floppy disk plugged into player base console)
- Obstacles that can be unlocked by your companion's ability
- Fast travel to the player base is done via a manhole cover in the city

## End game

- Climb a giant building like robot (the boss)
- Defeat the boss (prevent the boss from awakening = final main quest)
  - Complete enough quests to get the end boss quest

## - Stretch goals

- Robots can be dismembered

# Story and Gameplay

## Story (Brief)

You play as the last robot cop in a crime ridden city.

Visit your underground base to fetch quests.

Gradually stop criminal activity once and for all.

Evolving your skills and abilities to better counter the rising defiance.

## Story (Detailed)

City S-02 was once one of the greatest and biggest in the region, ruined by corrupt politics but most noteable the infamous biochemical civil war. The people left but the politics stayed. Now run by a despotic robotic president; the streets are filled with the ones able to thrive in these ruins.

The game starts at an abandoned save station.

While exploring you come across a half destroyed robot that will join you on your journey after returning him to his former glory.

Throughout the city you find robots that are in need of some assistance purging their once lovely city from invading gang types.

These missions range from killing other robots to fetching a key item that can later be used to finish off larger robots. You are equipped with a robot arm yourself, which allows you to upgrade some of your skills. You can thus actively plan your missions beforehand and adjust yourself to your enemies.

You are stealthy but brave, blending in with the city to eventually purge it from all the criminal robots that roam those streets. These robots all have their own weaknesses as you will learn throughout the game.

#### **Tutorial**

The player starts without any weapons or world space UI.

After repairing a half destroyed robot, the player unlocks their world space UI.

Your new robot companion helps you learn stealth whilst leading you to an abandoned base. In your new base, you unlock your two weapon types and attachments/upgrades for these weapons. After upgrading one of the weapons the main questline unlocks.

## Tutorial (mid-game / guided quests)

After completing a certain amount of quests, a new quest unlocks.

Your robot companion leads you to this quest, which allows you to unlock an area in your base with ability chips for your companion to use.

#### Main questline

In the player base you receive your first quest:

#### 1. The lost key

## Objectives:

- Go to district 1
- Collect the data key in district 1
- Return to the player base

#### Description:

Help the resistance steal decryption technology from the courier in district 1.

#### 2. Eliminate the president

#### Objectives:

- Eliminate the president broadcasting in district 1
- Return to the player base

#### **Description**:

The president's in town...

## 3. The fake

#### Objectives:

- Find the data packages (to find president's location, search three potential locations) without being seen
- Return to the player base

#### Description:

Find the real presidents location...

#### 4. Unlock the plans

## Objectives:

- In the last location you find the plans in one of these locations
- Return to the player base

#### Description:

Find the redacted plans...

#### 5. Follow the general

## Objectives:

- Find the general

- Follow the general
- Find the confidential files
- Return to the player base

#### Description:

Follow the...

#### 6. Sabotage

## Objectives:

- Deliver the bombs (three locations)
- Return to the player base

#### **Description**:

Plant bombs...

#### 7. Prevent

## Objectives:

- Go to district #
- Eliminate the robot researchers on the boss
- Collect the data key from the researcher
- Return to the player base

#### Description:

Collect the final data key...

## 8. Kill the president

## Objectives:

- Go to district #
- Eliminate the president without being seen
- Return to the player base

#### Description:

Kill the president.

## 9. Destroy the robot

#### Objectives:

- Go to district #
- Prevent the activation of the boss
- Return to the player base

## **Description**:

Stop the...

Main questline stretch goal:

## (10. No loose ends)

## Requirements:

- All side quests?

## Objectives:

- Eliminate yourself

## Description:

Goodbye...

## Main gameplay

Destroy robots or find and accept quests to gain experience and level up.

From time to time you will find your way blocked by obstacles that can be overcome by a solving a small puzzle. These puzzles will also appear later in the game in various situations.

Play solo or use local multiplayer to play through the game. When playing multiplayer the second player is using keyboard and mouse to control the robotic companion.

When playing alone the companion will guide the player and try to help out throughout the city; this robot will mostly be controlled by AI and some of his powers can be activated by the player.

# **Assets Needed**

## 2D

#### - Particles

- Companion explosion
- Abilities
  - shield absorb -> discharge
  - dash
- Weapon Lasers:
  - Light
  - Sound
  - Flames
- Energy blade
- Oil (blood)
- Steam (vents)
- Dripping water (sewer)
- Dust particles/ flying newspaper/ leaves/ .. environment particles

## - Decals

- Grunge
- Posters
- Damage
- Graffiti
- Bullet holes
- Oil

## - Logos

- blind district
- deaf district
- deaf/blind district

## **3D**

#### - Characters List

- Blind robot (humanoid) + boss
  - No eyes
  - Rusty (looks don't matter)
  - Light build
  - Large antennas
  - Boss: special weapon + more armor
- Deaf robot (humanoid) + boss

- Round shape
- Heavy armor
- Excellent eyesight
- Long range: machine guns, homing missiles, ...
- Scopes and lenses
- Slow
- Inbuilt flashlights
- Boss: special weapon + more armor

#### - Deaf-blind robot (flying) + boss

- Long legs
- laser light scanner (for heat recognition)
- Noisy patrollers
- Limited floating
- No eyes or ears
- Boss: special weapon + more armor

## - Companion robot (small, flying)

- 1 big button
- Hideable
- 1 flat side: display
- Sphere shape

## Quest giver robot/ trash can robot (humanoid)

- Top part body
- Head and torso

## - Player

- Robotic hand left + normal hand right
- Card slot for upgrades
- Rayman like (weapons on back, no arms, no legs)

## - (- Robot dummy (for player to practise on))

- Mannequin
- Scrap from other robots

#### Environmental Art Lists

#### - Blind district

- Skyscrapers
- Dark, natural lights
- No signs
- Chaotic building infrastructure
- Poor

#### Deaf district

- Skyscrapers
- Throwable props (rocks, parts, ..)

- Billboards
- Cameras
- Lights (street lights, lighted billboards, ..)
- Crowded buildings
- Flashy colors
- Clean

#### - Blind/deaf district

- Traps
- Blocky, greasy and dark buildings
- Narrow streets
- Steam vents

## - Reusable city props

- Trashcan
- Bench
- Street light
- Billboards
- Cables
- Steam vents
- Streets
- Vegetation
- Border stuff
- Etc ...

## - Sewer system/ metro system?

- Oil instead of water
- Tubes
- Abandoned metro tracks

## - Player base

- Underground environment
- Upgrading system in the wall (shop)
- Mission pod?
- Save prop (bonfire dark souls)

## Sound

#### - Sound List

- City noise
  - Air vents
  - Traffic
  - Sewer sounds
  - Wind
  - Billboard sound

- Exciting background song

#### - Characters

- Deaf district
  - Light footsteps (location based)
  - random robot conversations
  - Death
  - Taking damage
  - Spot sound
- Blind district
  - Heavy footsteps
  - Taking damage
  - Random robot conversations
  - Death sound (scream)
  - Spot sound (beep!)
- Deaf and blind district
  - Random robot conversations
  - Taking damage
  - Flying sound (zoom), scream
  - Death/ crashing sound
  - Scanning for heat sound
- Companion
  - Buzz
  - Quest voice
  - Helicopter
  - Self destruct warning beeps
  - Self destruct explosion
  - Approval sound
- Quest giver
  - Zoom (coming up)
  - Lit falling down
  - Printing sound (quest)
  - Paper sound (receive quest)

## - Weapons

- Long range (sniper/ flamethrower)
  - Recharge
  - Shoot
  - Overheating/ time to reload sound
  - Fire
- Short range (knife)
  - Recharge
  - Shoot

#### - Hit

- Player base
  - Sewer sounds
  - Water
  - Rats squeak (?)
  - Radio
  - You bought it! sound
  - Opening/ closing door
- Sound List (Player)
  - Hit
  - Upgrade
  - Footsteps
  - Die
  - Dash

## Code

- Player
  - Locomotion
    - Dash locomotion
    - Climbing locomotion
    - Dynamic FOV
- Companion
  - Abilities (Power control)
  - World-space UI
- Information manager / save system (Unity binaryformatter)
  - Preferred locomotion type
  - Player level
  - Companion (co-op partner) level
- Al
- Behavior Tree
  - Base Enemy Class
    - Deaf Enemy
    - Blind flying Enemy
    - Boss
  - Companion Al
    - Movement / UI.
  - Quest giver
- Weapon system

- Pick-Up
  - Random items (sound when thrown)
- Weapon type
  - Visual Upgrade (Base model visual change dependent on type)
- Long ranged
  - Upgrade (Damage, Energy)
  - Visual Upgrade (Sight, Silencer)
- Close ranged
  - Upgrade (Energy, Silencer)
  - Visual Upgrade (Damage)
- Achievement tracking
  - In-game tracking system
  - Steam integration
- Mini-games
- Environment obstacle triggers
- Sound system

## Animation

- Character animations
  - Blind robot
    - Attack
    - Hit
    - Walk (patrol)
    - Idle
    - Die
  - Deaf robot
    - Attack
    - Hit
    - Walk (patrol)
    - Idle
    - Die

## Blind/deaf robot

- Float (patrol)
- Hit
- Attack
- Scan
- Idle
- Die
- Quest giver
  - Move up/down (inverse)

- Hand over mission
- Companion robot
  - Float (around player)
  - Destroy ladder
  - Hide
- Player
  - Arm animations
  - Attack
- Environment animations
  - Particles? (fire, explosion, ..)
  - Small prop animations: e.g. airco rotor
  - Doors? (in case of indoor environments)

# Schedule

## Programmers week 1

- Design document
  - All overview, story and gameplay topics
  - Asset lists
  - Schedule
- Pickup
  - Pick up and hold weapons (allow clipping through walls)
  - Pick up items and drop when released (collision with world persists)
- Weapons
  - Long-ranged weapon
    - Damage on contact with enemy
    - Upgradeable features
  - Short-ranged weapon
    - Damage on contact with enemy
    - Upgradeable features
  - Upgrade bench
    - Docking system for both weapons
    - Slots to put upgrades into
- Al
- Behavior Tree Framework
  - Blackboards
  - Methods for combining nodes
- Dummy for weapon damage testing
- Locomotions
  - Artificial
    - Omnidirectional movement with the touchpad
  - Teleport
    - Point and click to teleport with a raycast
  - Grabbing
    - Climb buildings with a specific physics layer
  - Dash
    - Teleporting when touchpad is pressed to selected location
    - Point and click to lerp towards a new location
  - Skiing
    - Frictionless movement forward when performing a skiing motion
- Implementation
  - Weapons with pickup behaviour and damage
  - Teleportation and grabbing(climbing) locomotion

## o Dummy Al

## Artists week 1

- Design document
  - All overview, story and gameplay topics
  - Asset lists
  - Schedule
- Art bible
  - Working out the different district styles (deaf, blind, deafblind)
  - Research of shapes, silhouettes and lighting
- Planning environment
  - Deciding how districts are build up
  - The size of the districts
  - working out vertical movement
- Blockout
  - Using simple blocks to create a basic city layout
- Implementation
  - Import the blockout for scale reference

## Programmers week 2

- Quest system
  - Objective system
  - 4 types of quest that can be linked
    - Kill quest
      - Find a specific enemy and execute him
    - Exploration
      - Unlock/ view a new part of the map
    - Follow
      - Follow an enemy and gather intel from him
    - Collect
      - Collect intel and bring them to a specific
  - Visualisation for the quest

#### Al

- Pathfinding
  - Patrolling
  - Wandering
  - Searching
  - Alarm other Al
- Aim and shoot at player
- Slowing Al behaviour when alerted

## Weapons (If needed)

- Upgrade bench (redesigned after feedback from testers)
  - Lever to open weapon docking latch
  - Physical buttons to control world space UI
  - Upgrades for gun and sword
- Body docking
  - Dock weapons to your body when you bring the weapon to your body and release it (grib button)

#### Locomotion

- Grabbing
  - Climb buildings with a specific physics layer
- o Tele-dash
  - Teleporting when touchpad is pressed to selected location
    - Press to select a location
    - Release to tele dash to this location
  - Green means you can teleport, red means you can't
  - Can't tele dash when:
    - There is to much distance between you and the position
    - The position is on a slope that is higher than 45
    - There is anything above your height on the teleport location
  - Point and click to lerp towards a new location

#### Collectables

- Pick up behaviour
- Tracking collected items

#### Implementation

- Weapons into the maps
- Movement into the maps
  - Tele-dash
    - Testing which area you can tele dash on
    - Correct size (distance, height) compared to the map
  - Climbing
    - Placing climbable areas (ladders) in the map
- Collectables into the maps
- Al with all the basic behaviours implemented in week 1-2
- Interactive physical lever and button (behaviour)
- A single example quest

#### Artists week 2

- Modular props
  - Creating modular props for buildings
  - Creating modular buildings

Tilable textures

## • Start characters

- Designing characters
  - Deaf robot and companion
- o Rigging
  - Deaf robot and companion
- High poly modelling
  - Deaf robot and companion
- Animations
  - Deaf robot idle

## • Implementation

- Example of modular prop buildings
- Interactive physical lever and button (mesh)
- Companion
- Deaf robot idle animation

## Programmers week 3

- Quest system (finished)
  - Implementing quest in level/map
  - Play test and change where necessary
  - Add more objectives (if needed)
  - Get rewards (points) for upgrading weapons
  - Learn to use new abilities
  - Add "tutorial" quest
    - Learn the player the controls
    - Learn one ability
    - Help your companion and learn how to use him
- Scanner (Companion)
  - Companion ability to scan as specific area
  - See enemys in this area for a limited time
  - Cool down on the ability
- Al Detection (Visual)
  - When the AI sees you he will start attacking
  - Slow motion when Al spots you
- Minimap (When you climb a tall tower, minimap updates)
  - Minimap can be seen when you press a button on the companion
  - o Companion projects a 2d minimap on a plane
  - o The mini map will shows:
    - The map
    - The quest objectives

- The current quest objective's location (or an arrow pointing towards it)
- The player's base location

#### Player Base

- Adding the upgrade system to player's base
- Add achievement/collectibles display
- o Enter the base through any manhole cover in the city

#### Saving

- "Saving station" with a grabbable hose like plug
- When the plug is attached to the player's controller, the game saves
- The plug detaches when saving is finished

## • Implementation

- Enemy scanner into the minimap
- Companion minimap projection
- Al detection example
- Example quest variations
- Temporary visual feedback player damage

#### Artists week 3

#### Blockout

- Replace basic blockout with modular buildings
- Creating unique buildings
- Improving environment layout based on the modular buildings
- Player base
  - Upgrade station
  - Achievement/collectibles display (no unique collectable meshes yet)

#### • Implementation

- Unique buildings
- Player base

# Programmers week 4

## • Player information

- Experience system
  - Gain experience from completing quest
  - Use for upgrading weapons and companion
- Leveling system
  - Generate less sound
- Statistics
  - Track kills
  - Track completed quests
  - Time played

- Deaths
- Stealth kills
- Amount of weapon upgrades used
- Player height
- Crouching mode
  - Stealth mode
    - Less sound
    - Less visible
  - Reduced Tele-Dash distance
- Al Detection (Sound)
  - Sound detection (of the player)
    - When a sound is heard within a area the enemy AI will look
    - When player crouches (in real life) he makes less sound
    - With weapon upgrades your sound can be louder or silencer

## Implementation

- 1 quest with all objective types
- Deaf robot AI (fully functioning base behaviour)
- Blind robot Al (patrolling)
- Player base with upgrade station
- Polished Tele-Dash and climbing locomotion

## External alpha testing

Collect feedback from acquaintances

## Artists week 4

- Fill City
  - Creating city props (bins, benches, street lights, etc)
  - Finish unique lighting
  - Basic lighting of the scene
- Player base
  - Fill in blockout with modular props

## Programmers week 5

- UX
  - Apply feedback from last week's feedback
  - Add visual feedback to gameplay elements
- Al Companion
  - Movement (follow player)
  - Minimap
    - Toggle minimap with physical button

- Abilities
  - Enemy scanner
    - Z-depth ignore shader on nearby enemies
  - Bullet stopping shield
    - Blocks the raycast from enemies shooting at the player
  - Detect and unlock blocked environment paths
- Testing and polishing of all the implemented features for the presentation
- Code review

## Artists week 5

- Fill City
  - Creating city props (bins, benches, street lights, etc)
  - Basic lighting of the scene
  - General improving of the environment
  - o Decals

## Programmers week 6

- UX
  - Decals
  - Sound effects for weapons and world interaction(button, lever,...)
- Al Companion polishing
- Mini Games
  - Lock picking
  - Puzzle completion
- Collectable polishing
  - Achievements
- Boss
  - Test climbable large boss
  - Update climbing locomotion if necessary
- Implementation
  - Scatter collectables around the city
  - MiniGames

## Artists week 6

- Fill City
  - Creating city props (bins, benches, street lights, etc)
  - Lighting of the scene
  - General improving of the environment
  - Decals

## Programmers week 7

Christmas holiday (no Vive available to most team members if Hive not open)

- Basic boss Al behaviour
  - Searching
  - Attacking
- Fixing bugs / improvement user experience and polishing
  - Al behaviour polishing
  - World space UI polishing
- Additional Mini Games
- Implementation
  - Sound
    - Effects
    - Ambient

## Artists week 7

Christmas holiday (no Vive available to most team members if Hive not open)

- Sound
  - Adding sounds to the scene (basics)
- Environment
  - Improve general look of the environment

## Programmers week 8

Christmas holiday (no Vive available to most team members if Hive not open)

- Boss Al polishing
- Fixing: bugs / improvement user experience
- Implementation
  - Unique quests
- External alpha testing session 2
  - Collect feedback from acquaintances

#### **Artists week 8**

Christmas holiday (no Vive available to most team members if Hive not open)

- Sound
  - Add more sounds (also non environment sounds)
- FX
- Creating particles
- Environment
  - o improve general look of the environment

# Programmers week 9

- Implementing things into the level
- Fixing bugs / improvement user experience and polishing
- Code review

## Artists week 9

- Filling district and adding extra details
- Sound design

## Programmers week 10

- Implementing things into the level
- Al Polishing
- Fixing bugs / improvement user experience and polishing
- Code review

#### Artists week 10

- Filling district and adding extra details
- Sound design

## Programmers week 11

- Implementing things into the level (if necessary)
- Fixing bugs / improvement user experience and polishing
- Wrapping up

#### **Artists week 11**

- Filling district and adding extra details
- Sound design
- Wrapping everything up