



University of the West of Scotland

CREATIVE COMPUTING TECHNOLOGIES

GAME DESIGN DOCUMENT (GDD)

SORTICA - ALGORITHMIC INVENTORY  
SORTER

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## Key Notes

- These days, GDD's tend to be shorter, not longer. Challenge yourself to explain features concisely, use visuals, and leave some parts open to the team, sometimes less details are better, especially if the scope of your game is large (No one wants to read a 100 pages long GDD).
- Pictures are worth a thousand words.
- Make this as you visualize your game: Even if it doesn't feel like you'll be able to gather a full team to take on all the necessary tasks, plan as if you have a full team, afterwards you can scale it to size and prioritize elements. If you feel like you want a feature like that in your game, put it in here.
- If one of the sections doesn't make sense for your game, feel free to delete it from the final document or use "Not applicable".
- Make sure the final version is coherent; re-read it several times and send it to friends first. If other people understand it with a simple read, then you're doing great.
- Have fun!

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# 1 Introduction

**Important!** Some terms like queue and scheduling algorithm, among others, have been used in an arbitrary way to make this document more understandable.

A GitHub repo is already up with information regarding the development of this project. <https://github.com/frankoldfield/algorithmic-inventory-sorter>.

There is also a website available with information about this game and the development process. <https://frankoldfield.github.io/sortica/>

This version of the GDD has been written after several play sessions with feedback from both students and coworkers, which have affected the design of the game. [G23](#)

## 1.1 Scope of the document

This document is intended for anyone involved in the production of the video game or any related products such as research papers or podcast episodes. Specifically, researchers at the Creative Computing Technologies lab at University of The West of Scotland. It will also be part of the handoff documentation, for anyone that might be involved in the development of this game in the future. Or annexed as part of a research publication.

## 1.2 Elevator pitch

Sortica - Algorithmic Inventory Sorter is an immersive Serious Game (SG) where users will have to solve 10-20 minute levels in simulated scenarios while learning about scheduling algorithms. It will be intended to be used as a learning tool in undergraduate courses, alternative to traditional methods like lectures or problem solving. By using novel immersive technologies, we aim to have a higher engagement and knowledge retention for students with or without additional educational needs.

# 2 Game Overview

## 2.1 Game concept

The player will play as a robot, part of a restoration crew, in an enterprise called Sortica, whose main goal is the restoration of the planet. Particularly, their sorting crew's goal is the complete restoration of Sorting Street, home to several local businesses. To achieve this goal the players will have to solve puzzle-like simulations. Every time the player completes the puzzle, that level will be considered completed, and the corresponding building will be restored. This allows the player to see directly the impact the completion of their goals have had on the world of the game. [G13](#), [G20](#), [G45](#), [G46](#)

The main objective is that the players learn about scheduling algorithms while enjoying the game and showing an improved learning progress compared to more traditional means. For this, it is important that the **level of difficulty is well suited for the focus group**.

## Learning Objectives

The general learning objectives (*LO*) of this serious game are:

- *LO1*: After playing the game, the learner will be able to explain and apply the concept of Scheduling Algorithm.
- *LO2*: After playing the game, the learner will be able to explain and apply the concept of Queue.
- *LO3*: After playing the game, the learner will be able to explain and apply the concept of Stack.
- *LO4*: After playing the game, the learner will be able to explain and apply First-in-First-Out (FIFO) algorithms with one or more queues with different priorities.
- *LO5*: After playing the game, the learner will be able to explain and apply Last-in-First-Out (LIFO) algorithms.
- *LO6*: After playing the game, the learner will be able to explain and apply Round-Robin algorithms.

## 2.2 Audience

The people who'll play the game are undergraduate students from degrees like computer science. Some will play this game as a part of a test study, to figure out the impact on their knowledge, these participants will also be subject to a stealth game-based assessment. Others will play this game as part of the learning process in lessons related to queuing algorithms. They will be 18 years or older. [G51](#)

## 2.3 Genre

This is a Serious Game, specifically, a simulator where players will have to solve puzzles.

## 2.4 Setting

Sortica takes place in a post apocalyptic world, after a climate disaster, but some special chapters may take place in other fictional environments, this can act as a way of implementing new levels, without them being too repetitive, special chapters can show the perspective of other restoration crews destined in other areas of the planet, for now, we will consider these special chapters out of scope. Having a setting this typical helps link the game world with the main goal [G20](#).

## 2.5 Game structure

Sortica will initially have 2 levels, after completing the first one, the supervisor will congratulate the player on their achievement . Suddenly, the matter generator (This is where the items that the user has to reorder appear) breaks because the directors of the company want the job finished soon, the player will then have to complete the second one in order to keep their job (and not die) [easily](#).

- **1<sup>st</sup> Level 1:** In this level, the player will have to use a FIFO algorithm.

- Concepts: FIFO, Queue, Scheduling Algorithm.
- Learning Objectives: *LO1, LO2, LO6, LO10, LO11*.
- **2<sup>nd</sup> Level 2:** In this level, the player will have to use a LIFO algorithm.
  - Concepts: LIFO, Stack, Queue, Scheduling Algorithm.
  - Learning Objectives: *LO1, LO2, LO3, LO7, LO10, LO11*.

## 2.6 Player

The game will be single player. The player will control a character whose goal is the restoration of Sorting Street. While doing this, they will have to move through levels, completing the proposed puzzles.

## 2.7 Game flow summary

As previously mentioned, the game will revolve mainly around Sorting Street and the different levels. In Figure 1 we have a flowchart describing the main gameloop.

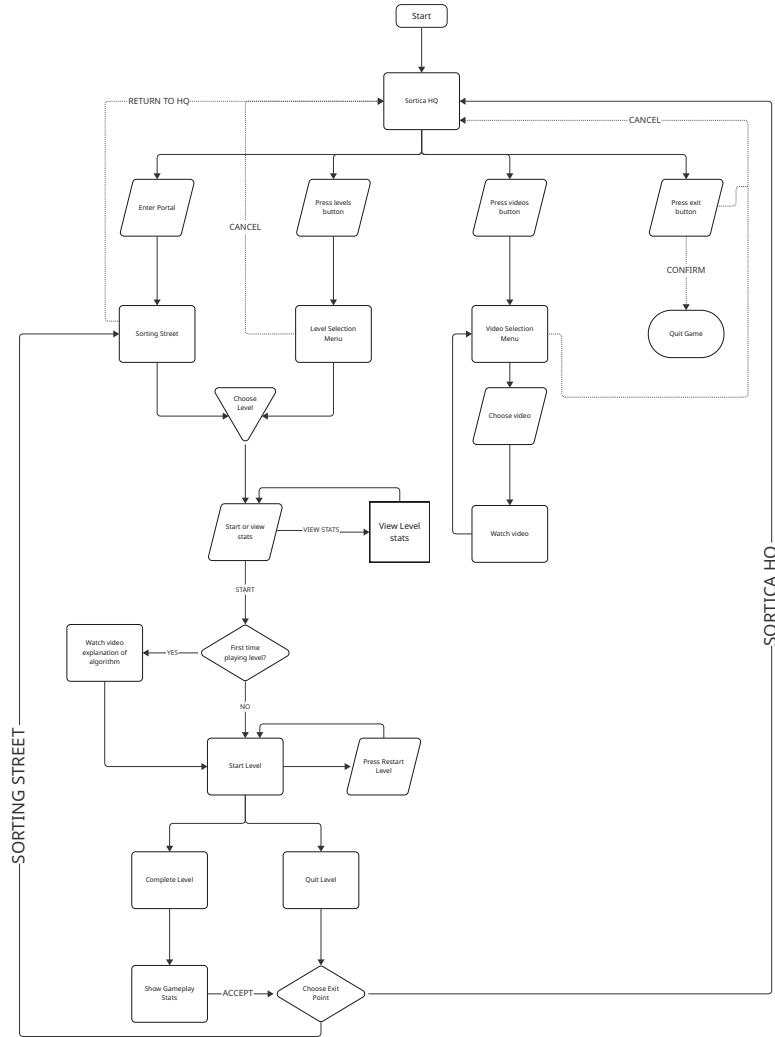


Figure 1: Game flowchart

## 2.8 Look & Feel

We want the game to be fairly simple, the goal is to make it feel a bit like Portal but less technical/cold, with a warmer feel. We don't want the game to be distracting.

The game will have one location, Sorting Street, the player will be able to move around his work station, that is floating over Sorting Street.

## 3 Gameplay

### 3.1 Objectives

The main objective for the player is beating all the levels and completing the reconstruction of Sorting Street.

### 3.2 Progression

First of all, the supervisor npc will carry out an onboarding and introduction for the player. Then, the player will start the first level. The goal in each level is to optimize scheduling processes, in each level they will have an incoming queue of items, that will appear through the matter generator, a set of hints to sort the items on their way out, and an outgoing queue (The Contention Unit), each time the player puts one item in the correct order, the building will start getting built in a smaller scale, on top of the contention unit, once the player has successfully sorted these objects, they will have optimized the scheduling process in that level, the player will be prompted to grab the small building from the contention unit, once they do this, the building will be placed in Sorting Street. Completing the first level will unlock the second one. [G50](#)

#### 3.2.1 Challenge structure

The first level after the introduction will be a basic level using the FIFO algorithm. In the second level, the user will have to apply the LIFO algorithm

- **1<sup>st</sup> Level 1:** FIFO, Input queue (Matter Generator), Output queue (Contention Unit), Desk, .
- **2<sup>nd</sup> Level 2:** LIFO, Stack.

### 3.3 Play flow

The player will first be inside of a container, after interacting with an object that facilitates the control onboarding, the container will be lifted and the player will be able to interact with the supervisor. The player will now know they are at their work station. Once he interacts with the supervisor, the introduction/tutorial will start [G44](#), they will be introduced to each concept and element of the game, and how they work [G29](#), when explaining each element of the game, the supervisor will position itself next to that element, to better guide the user through the introduction [G31](#). Most importantly, the supervisor will explain what programmable matter is, how it works, and how it affects the world and its mechanics [G36](#). The supervisor will clearly specify the goals of the player as a Sortica agent [G1](#), [G2](#), [G5](#), [G19](#), [G58](#) and introduce him to the state of the world [G13](#), [G18](#), as well as what specific steps they have to take in order to achieve their goals [G52](#). After the supervisor finishes the introduction, the first level will start, the player will be able to reset the level at any point. The player will have to complete the level by physically grabbing the matter balls from the matter generator and feeding them into the contention unit [G34](#), [G36](#). Once the player finishes the first level, the supervisor

will celebrate and congratulate the player on their achievement, telling them they have completed their first building G3, G26, G49, the finished building will start spinning, to prompt the player to pick it up G31. But something goes wrong with the matter generator. This will act as an introduction for the second level G13, G14. After completing both levels, the player will be prompted to close his work station.

### 3.4 Difficulty

Initially, a difficulty setting for each level was going to be implemented. But it would be redundant, if we already have a learning curve produced by increasing difficulty among different levels, it becomes unnecessary, and it would probably make the game feel more repetitive and less immersive. The difficulty of the levels will be adjusted with the scheduling algorithm to be used. G49, G50

## 4 Mechanics

### 4.1 Rules

- The player can't modify any assets from the game, they can only move the objects it has to queue and interact with other assets, in a determined way.
- When an object arrives from an input queue, the player must grab it, the player can then leave that object floating around, or feed it into the contention unit.
- If the player can't remember the order of the objects or wants to restart the level, he can do so by pulling the lever next to him.
- If the player can't remember the scheduling algorithm being used, he can interact with the supervisor, he will then give the player a short explanation.

### 4.2 Game universe

The game takes place in a single scene, this scene is the work station, that is floating above Sorting Street.

The game will be in charge of transitioning from one stage of the game to the next, after the introduction, the matter generator will be started, and matter balls will be given to the player. Each time the player picks up a matter ball, the next one is generated. The player will then have to feed these matter balls into the contention unit in the right order, each time a wrong matter ball is attempted to be fed into the contention unit, the player will receive negative feedback, if the player attempts to feed the correct matter ball, the matter ball will disappear, the next step of the building will appear, and the player will receive positive feedback. Once the player successfully feeds every item into the contention unit, the level will be completed. If at any point before completion, the player pulls the lever, both the matter generator and the contention unit will be restarted.

### 4.3 Physics

The supervisor floats because he is a robot and can change sizes because he is made of programmable matter, this allows us to keep the work station uncluttered. The matter balls float when the player is not holding them, this allows the player to reorder them both on the table, or vertically, allowing players to do this the way they feel more comfortable.

### 4.4 Container

Initially, the player will be inside of a container, after finishing the game, the container will encapsulate that player again.



Figure 2: Caption

### 4.5 Floating controller

Once the player gets into the game, and is in their container, they will see a replica of their controller, showing them what button to use to interact with elements within the game. This is a way of showing the player how controls work in the game without breaking immersion or explicitly telling them, additionally, they are still inside the container at this stage, to prevent them being overwhelmed, and to allow the onboarding process to be progressive G2, G29, G44.

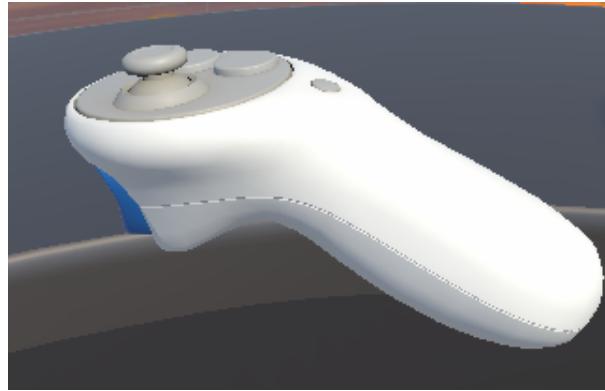


Figure 3: Caption

## 4.6 Matter Balls

The items the user will have to sort are matter balls, these will resemble materials used in the construction of the building.

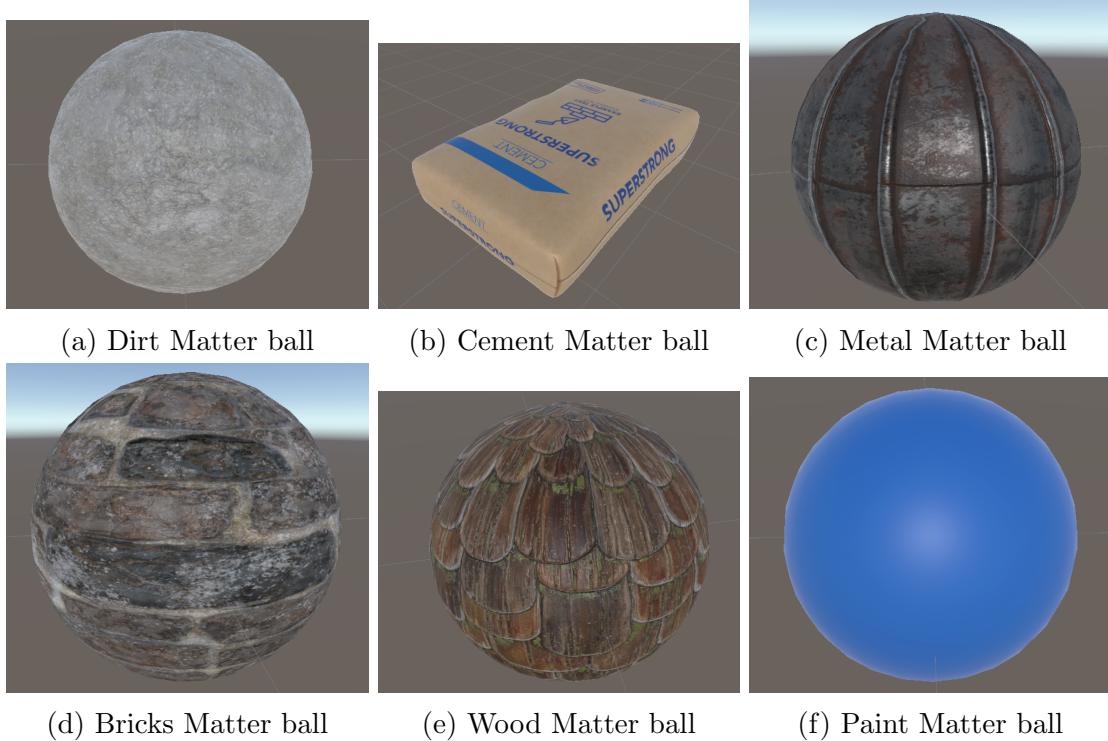


Figure 4: Sortie

## 4.7 Desk

It is important that we mention the desk, it goes around the player to minimize the movement necessary to play the game, it stays consistent throughout the entirety of the game. All the interactive elements are placed on this desk, and its layout its designed to allow the player to follow a consistent and simple pattern when interacting with the

elements of the game [G9, G15, G32, G37, G38, G56]. The desk is low enough so that the player sees the world while playing the game, and can see the actual buildings placed on Sorting street once he completes each level G41, G45. The desk has a slight inclination, so that the player can play comfortably both seated or standing G6, G54.

## 4.8 Matter Generator

This asset will provide the player with the matter balls they will have to interact with, the matter balls will not necessarily come in order. When the player grabs a matter ball, the next one will be dispatched by the Matter Generator. The Matter Generator has particles emerging from it, to make it more visually attracting. G22

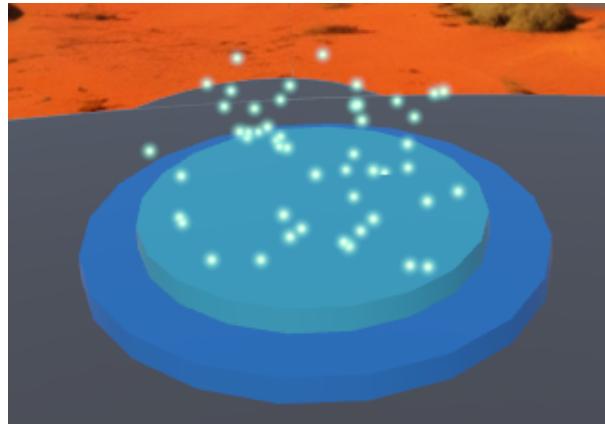


Figure 5: Matter Generator

## 4.9 Contention Unit

The Contention Unit is where players will place items they think are already in the correct order. After placing an item on the Contention Unit, said item will disappear. After disappearing, the building being reconstructed will advance in its building progress (new element appears on top of previous ones). The Contention Unit has the same colour scheme and particles as the Matter Generator, this allows to indicate that the two are connected in some way, and also to indicate the contention unit is also interactable. G22, G38, G40. The path between the matter generator and the contention unit is straight and always clear G37.

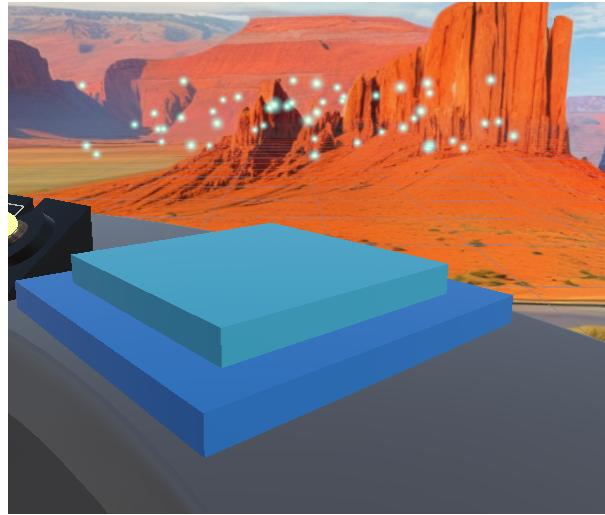


Figure 6: Contention Unit

#### 4.10 Lever

The lever allows the player to restart the state of the level whenever they want. With this feature, we aim to reduce frustration and make mistakes that are part of the learning process feel less punishing. [G28](#), [G30](#), [G39](#)

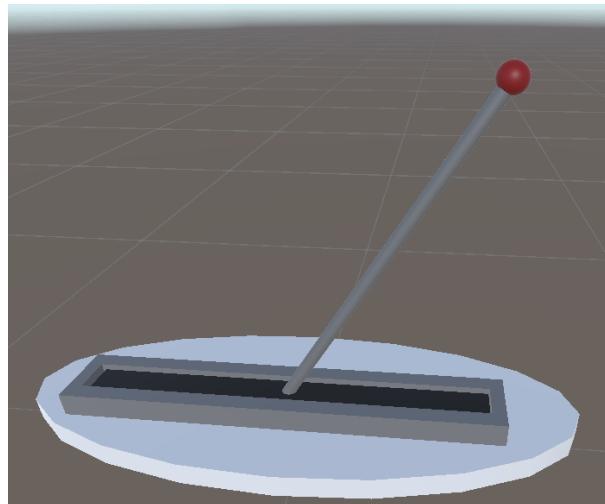


Figure 7: Lever

#### 4.11 Feedback light

This light turns green when a correct matter ball is fed into the contention unit, and red when an incorrect matter ball is attempted to be fed into the contention unit. [G2](#), [G24](#), [G25](#), [G26](#), [G35](#), [G42](#), [G43](#)

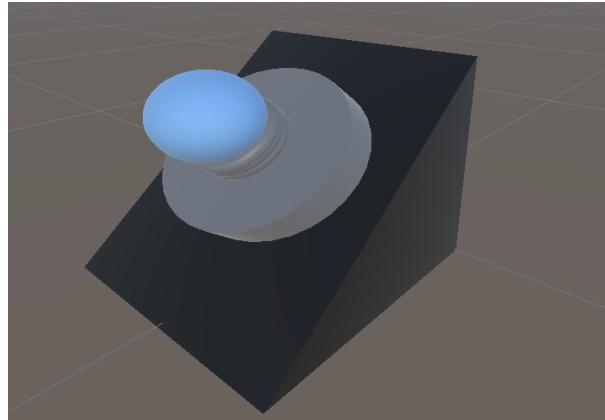


Figure 8: Feedback light

#### 4.12 Progress indicator

This indicator tells the player how many steps there are in a level and how many they have completed. [G2](#), [G24](#), [G25](#), [G26](#), [G35](#), [G42](#), [G43](#)

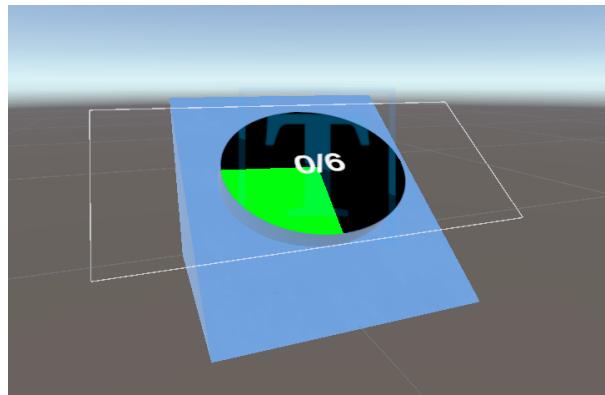


Figure 9: Progress indicator

#### 4.13 Economy

Initially, we had thought of implementing an economy, to make completing levels more appealing, but users would only be able to buy cosmetic items, we think that this could prompt the users to engage in the game in a more repetitive way, that could halt the learning process. Because of this, we have decided not to implement an economy system.

#### 4.14 Character movement

The player can move around within their work station. The default movement type will be continuous movement.

## 4.15 Player interaction

The player can interact with the supervisor when he needs more hints, they can also interact with the matter balls, and the finished building.

The actions the player can perform are:

- **Interact:** By interacting with an element, the player doesn't alter the game world, but triggers a series of events.
  - **Start game:** By interacting with the floating controller, the player can start the game.
  - **Restart level:** By interacting with the lever while a level is in progress, the player can restart the level.
  - **Exit game:** By interacting with the lever once the player finishes the game, the player closes their work station and can then exit the game.
  - **Talk with Supervisor NPC:** By interacting with the supervisor NPC G28, G36, the player will receive clear verbal instructions that explain the scheduling algorithm they have to apply, the player can replay this as many time as they want G5, G39. However, the instructions/hints are simple enough so that the user doesn't get distracted. G33
- **Grab:** The player can grab the matter balls he will have to sort, this is the core mechanic of the game G28, or a completed building when instructed to. He can only grab an object if he is not currently carrying one.
  - **Remove from matter generator:** By grabbing a matter ball currently placed in the matter generator, the player will now have it on him, and the matter generator will dispatch the next matter ball, unless there are no matter balls left to generate in that level.
- **Release:** The player can release items that he is currently holding, by doing this, the item will keep its inertia but decelerate until it stays floating there.
  - **Add to contention unit:** By releasing a correct matter ball on top of the contention unit, the item will be fed into the unit, making it disappear. Also, the contention unit will show the progress by adding a new layer to the building model on top of it G22, G24, G25, G26, G34, G36, G42. If the player attempts to feed the wrong type of programmable matter into the contention unit, it will not accept it, this means the player doesn't lose control over anything, the contention unit will play an error sound, and the feedback light will let the player know that was a mistake, without punishing them. G24, G25, G26, G27, G30, G39, G42, G43
  - **Completed building:** By releasing a completed building, it will be positioned and resized into Sorting Street.
- **Walk:** The standard moving setting is walking, the speed depends on how fast the user moves in real life.

#### **4.15.1 Game menus**

The game will not have any menus, every interaction or piece of information will be implemented in a diegetic way. [G32](#)

#### **4.15.2 Saving**

The game is short and supposed to be played in one sitting, so we have not implemented any saving features. The actions performed by the player are recorded and exported to a log for posterior analysis.

#### **4.15.3 Game options**

The game does not have any options the user can toggle, it has been designed to be simple and natural enough so that it does not need control customization or other options to be implemented. [G4](#), [G33](#)

### **4.16 Assets**

#### **4.16.1 Supervisor**

- Supervisor model
- Supervisor texture
- Supervisor animation/movement
- Supervisor dialogues (audio + text)

#### **4.16.2 Work Station**

- Room model
- Terminal model
- Terminal texture
- Panel model
- Panel texture
- Portal model
- Portal texture
- Wall/Flooring/Ceiling textures
- Progression counter model
- Progression counter texture
- Feedback light model
- Feedback light texture

#### **4.16.3 Sorting Street**

- Skybox
- Work Station platform
- Work Station texture
- Desk model
- Desk texture
- Matter generator model
- Matter generator texture
- Matter generator particles

- Contention unit model
- Contention unit texture
- Contention unit particles
- Reset lever model
- Reset lever texture
- Container model
- Container texture
- Container animations

#### 4.16.4 Levels

##### Programmable matter balls

- Matter ball appearing animation
- Matter ball model
- Cement bag model
- Cement bag texture
- Dirt texture
- Brick texture
- Metal texture
- Wood texture
- Paint texture

##### Level 1

- Final building model
- Final building texture
- Final building animations
- Iterative building step models
- Iterative building step textures

##### Level 2

- Final building model
- Final building texture
- Final building animations
- Iterative building step models
- Iterative building step textures

## 5 Graphics and audio

### 5.1 Visual system

It is a 3D minimalistic game. One of the reasons why it is minimalistic is to reduce distractions. The shapes and textures will be simple, similar to games like "Fall Guys", "Firewatch", "Outer Wilds" or "Roblox" (See figure 10). This way, we can make the game appealing, but not distracting.[G22](#)



(a) Fall Guys



(b) Firewatch



(c) Outer Wilds



(d) Roblox

Figure 10: Examples of different games.

### 5.1.1 Player camera

VR First person view.

### 5.1.2 Landscape

The landscape is a desert wasteland with a street in it, this street is Sorting Street. (See Figure 15).

## 5.2 Interface

### 5.2.1 Game HUD



Figure 11: User hud

The hud will only show two spheres showing the position of the two controllers. These spheres has lines coming out of them that allow the user to see the Raycast interactors. **G7, G8, G10** The player will be placed at the center of their work station (See figure 12)



Figure 12: Player view

## 5.3 Audio system

### 5.3.1 Game music

The game doesn't have any music, we need to avoid complex music to reduce distractions and disorientation.

### 5.3.2 Audio look & feel

We want the audio to feel simple and easy to understand. Again, it can't be distracting.

- The supervisor has a calm yet firm human voice. **G12**

- Each time the user feeds a correct matter ball into the contention unit, a pop sound is played to let the player know that was a correct step. G3, G43, G47, G48
- Each time the user attempts feeding a wrong matter ball into the contention uni, an error sound is played. G3, G47, G48
- When interacting with the lever, a swoosh sound is played. G35, G36

## 6 Story and narrative

### 6.1 Backstory

The world is set in a post apocalyptic setting caused by an environmental disaster. After several years of having to live underground, Sortica INC was founded, with the goal of making the surface habitable again G46, one of its divisions is the Sorting division, whose objective is making sure every process that takes place on the surface is optimized, to ensure no resources are wasted.

### 6.2 Main plot

We are part of a restoration crew at Sortica INC, in the Sorting division. Our goal is to complete the restoration of Sorting street, by optimizing the way the restored businesses/buildings manage their processes (applying queuing algorithms). If we are not successful in our duties, we will be considered an unfit model and will be destroyed and replaced by newer models.

#### 6.2.1 Plot progression

The supervisor introduces the player to this world and to who they are, after completing the first level, something goes wrong with the matter generator, and the supervisor lets the player know they have to complete another level if they want to keep their work, the higher-ups want the job done fast, after completing the second level, the supervisor lets the player know that they have survived their first day at work, and tells them to shut their work station.

### 6.3 Cutscenes

We have avoided using any cutscenes in order to preserve player engagement and immersion.

## 7 Characters

### 7.1 Main character - Sortie

His full name is Levitating Sorting Restoration Robot version 13.9.2.

### 7.1.1 Backstory

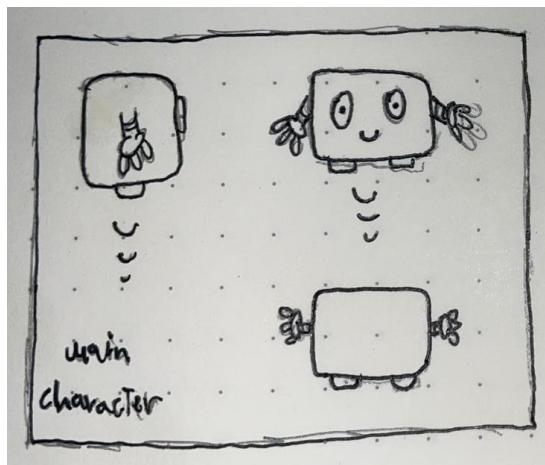
The main character (You) is a robot from a restoration crew, whose goal is to restore the buildings in sorting street.

### 7.1.2 Personality

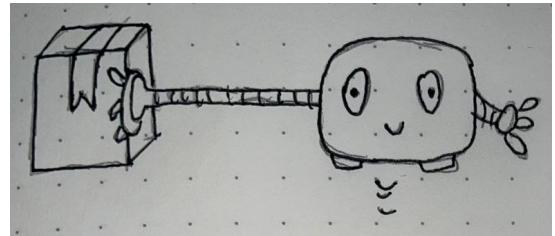
The main character doesn't talk, it has a naive personality, and just smiles and nods at everything it is told to do.

### 7.1.3 Appearance

Small rounded rectangular prism, with stretching arms and little legs. When the character is crouching, it has little legs, when it isn't, it levitates. Currently, the player does not see itself.



(a) Views



(b) Arm extended

Figure 13: Sortie

### 7.1.4 Abilities

It can levitate, and grab objects from afar with its extendable arms.

### 7.1.5 Relationships

It is new to the job, other employees treat him just as a regular new employee.

## 7.2 Supporting character - Rollie/Roller/Scrollie

His full name is Rolling Sorting Restoration Robot version 5.9.

### 7.2.1 Backstory

The supporting character is in this case an older model of restoration robot, it is now retired of his restoration duties and is dedicated to instructing and teaching newer models.

### **7.2.2 Personality**

It is more apathetic than the main character, it takes his job very seriously.

### **7.2.3 Appearance**

Sphere with eyes, and mouth.



Figure 14: Rollie model

### **7.2.4 Abilities**

It floats, it changes sizes, and it can teleport, it is omnipresent.

### **7.2.5 Relationships**

It is the supervisor of the main character.

## **8 Game world**

### **8.1 Look & Feel of the world**

The world is a desert wasteland, the work station where the player is located at feels modern and new, like the restored buildings.

### **8.2 Locations**

We have decided to only have one location, to avoid breaking presence and immersion this location is a desert wasteland, as it fits with the narrative of the game, while still being realistic (it's a location that could perfectly be in the real world). [G11](#),

### 8.2.1 Sorting Street



Figure 15: Sorting Street

#### Connection to the plot

Main location, this is the street the player will have to restore, in this street, each building located in Sorting Street is a completed level.

### 8.3 Levels

All levels will follow the same structure and will be set at the same location, this facilitates design, reproducibility and escalation, while preserving immersion, flow, and presence.  
[G40](#)

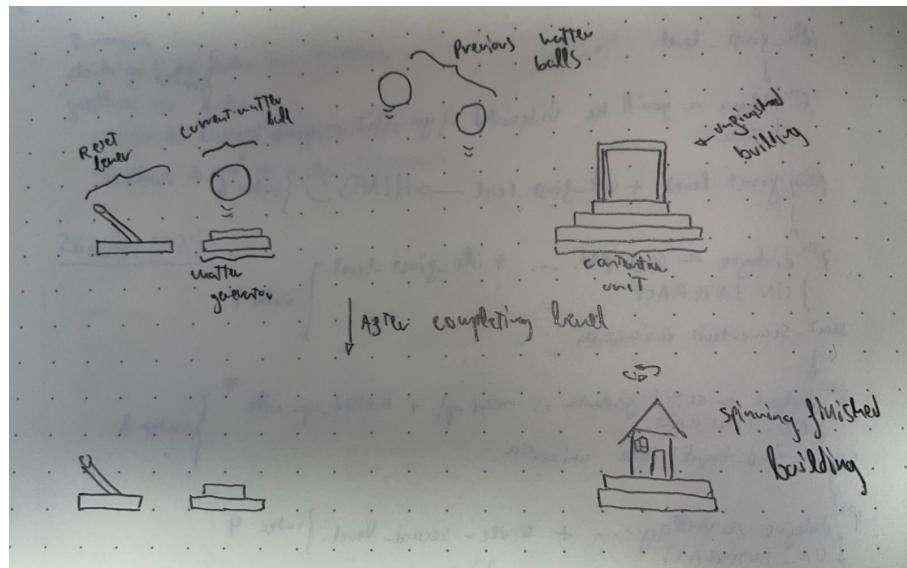


Figure 16: Level Design

### 8.3.1 Level 1

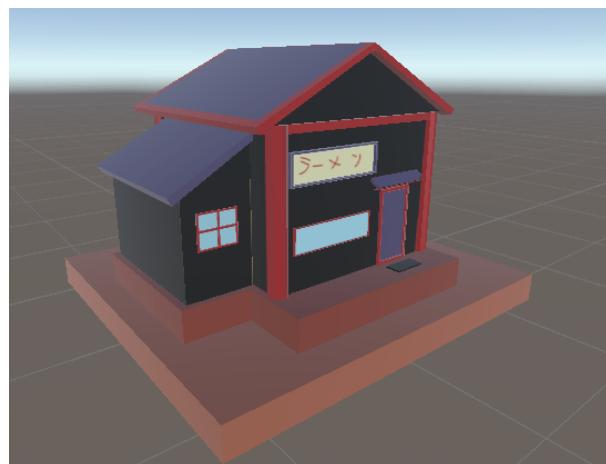


Figure 17: Building for level 1

- Queuing Algorithm: FIFO

### 8.3.2 Level 2



Figure 18: Building for level 2

- Queuing Algorithm: LIFO (The supervisor explains that because the matter generator is messed up, matter will be generated in the reverse order, the particles from the matter generator and the contention unit will now be read to show that they are broken)

## 9 Accessibility guidelines

These guidelines have been extracted from (insert Luke's reference).

- **G1:** Provide clear goals.
- **G2:** Progressive onboarding supports drive.
- **G3:** Clear feedback sustains flow.
- **G4:** Natural interaction enhances engagement.
- **G5:** Clarity of information and guidance fuels motivation.
- **G6:** Inclusive goal achievement.
- **G7:** Design a minimalistic UI.
- **G8:** Clarity and minimalism in UI design.
- **G9:** Design for a user state of flow.
- **G10:** Flow-enhancing minimal UI.
- **G11:** Anchor flow through embodied presence.
- **G12:** Authentic and controllable auditory experiences.
- **G13:** Use storytelling to enhance immersion.
- **G14:** Narrative-driven flow.
- **G15:** Keep pathways simple and uncluttered.
- **G16:** Motivational navigation design.
- **G17:** Design the ISG to have value to the player. **We have applied it by teaching useful concepts, but I don't know if that would come from the guidelines as its the core rationale for this game**
- **G18:** Present the core narrative of the experience to the player.
- **G19:** Provide clear goals.
- **G20:** Narrative-driven goal setting.
- **G22:** Use the ISG aesthetic to encourage engagement.
- **G23:** Use participatory design.
- **G24:** Immersive drive through multi-sensory feedback.
- **G25:** Present clear, immediate, and reflective feedback.
- **G26:** Optimising learning through strategic feedback implementation.
- **G27:** Enhance learning and interaction through multi-sensory modalities. **Because we only accept one type of input, this guideline falls redundant with previous ones (G25, 26)**
- **G28:** Foster learning through engaging and natural interactions.
- **G29:** Provide onboarding and training for sustainable learning and usability.
- **G30:** Enable learning from mistakes with reversible actions.
- **G31:** Tailor feedback and guidance based on task complexity.
- **G32:** Seamless UI integration (Use diegetic interfaces).
- **G33:** Limit information and choices.
- **G34:** Leverage embodied visualisation for enhanced learning.

- **G35:** Design multi-sensory experiences for emotional engagement and learning.
- **G36:** Integrate active, narrative-driven interactions for real-world learning.
- **G37:** Keep pathways simple and uncluttered.
- **G38:** Ensure spatial coherence and user orientation.
- **G39:** Flexible pacing and unpenalized repetition.
- **G40:** Facilitate continuity and collaboration through persistent digital objects.
- **G41:** Outcome-driven design and contextual immersion.
- **G42:** Immediate and iterative feedback for mastery.
- **G43:** Employ reinforcing feedback and success-oriented design.
- **G44:** Interactive and gamified experiential training.
- **G45:** Show the player status and world state.
- **G46:** Prioritise goal-oriented and meaningful gamification.
- **G47:** Provide dynamic and interactive sounds.
- **G48:** Enhance presence with strong audio cues.
- **G49:** Dynamic and progressive engagement design.
- **G50:** Structured progression and narrative integration.
- **G51:** Consider the type of player that will interact with the experience when designing experience dialogue.
- **G52:** Implement adaptive and clear support structures.
- **G53:** Comprehensive visual inclusivity and customisation. *Haven't been able to implement because of time and design restrictions*
- **G54:** Enable adaptable physical engagement.
- **G55:** Provide comprehensive sensory and cognitive accessibility options. *Haven't been able to implement because of time restrictions*
- **G56:** Seamless & adaptive XR UI.
- **G57:** Responsive audio for emotional depth and spatial presence. *Haven't been able to implement because of time and design restrictions*
- **G58:** Implement adaptive and clear support structures.
- **G59:** Allow user customisation of the experience to improve user engagement. *Haven't been able to implement because of time and design restrictions*