

# **Mailman Royale**

## **Game Design Document**

*By 404NF*

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# 1. Design history

2/4/2021 - Document created (Andrea Franchini - Davide Deodati - Luca Squadroni)  
4/4/2021 - Comparisons with similar games (Andrea Franchini)  
5/4/2021 - Legal Analysis and first draft of gameplay elements (Davide Deodati)  
6/4/2021 - Rules and procedures (Davide Deodati - Andrea Franchini)  
9/4/2021 - The Game World (Davide Deodati)  
12/4/2021 - First review (Andrea Franchini - Davide Deodati - Luca Squadroni)  
16/4/2021 - Flowcharts (Luca Squadroni)  
20/4/2021 - Controls (Luca Squadroni - Andrea Franchini)  
28/4/2021 - Animations (Luca Squadroni)  
2/5/2021 - UI menu (Luca Squadroni)  
9/5/2021 - Rope (Luca Squadroni - Andrea Franchini)  
14/5/2021 - Expand Target Audience (Luca Squadroni - Andrea Franchini)  
23/5/2021 - Document Levels (Luca Squadroni)  
24/5/2021 - Gadgets (Davide Deodati)  
3/7/2021 - Storyboards (Davide Deodati)  
7/6/2021 - Final Review (Andrea Franchini - Davide Deodati - Luca Squadroni)

# 2. Vision Statement

**Mailman Royale** is a **team-based multiplayer 2.5D vertical platformer** for **2-8 players**, in which opposing teams race to the top of a massive skyscraper. In a futuristic city, it's the player's duty as a Royal Mailman to deliver the Prince his suitors' love letters in case of a blackout!

Starting at the lowest levels, multiple teams need to make use of unique gadgets (grappling hooks, ladders, ropes...) and tight coordination in order to advance to the higher floors.

A unique feature of this game is that the players are tied together with a rope, limiting their movements but introducing new ways of cooperation.

Players can figure out what strategy fits best: they can race to the top, impede the opposing team's progress or stock up on gadgets to gain an advantage.

## 2.1. Game logline

*Only you can deliver to the Prince his suitors' love letters! Team up and race to the top of the Royal Skyscraper: only the most coordinated team will win!*

## **2.2. Gameplay synopsis**

Once the right amount of players in a lobby is fulfilled, players are divided into multiple teams of equal size. Before the start of the match, players can customize their loadout and appearance.

When the match starts, they must race to the top of the map, which is a futuristic skyscraper. Each team is assigned a side of the skyscraper: all sides of the building are the same, in order to ensure fairness, but players can decide to move to an opposing team side if they wish so (for example, to put obstacles in their way).

Players can expect a familiar experience when controlling their characters: as in most common platformers, the player is able to move left and right, jump (at different heights), wall jump, climb walls (for a limited time) with responsive feedback and an intuitive control scheme.

Players belonging to the same team are linked by a rope, limiting their movements: one member cannot move too far or fall down unless the other teammates reposition themselves in a suitable way. Players may also retract or extend a portion of the rope. This mechanic leads to a slower pace of the game, but also to new and interesting solutions to overcome obstacles.

Players can make use of unique gadgets that have a limited amount of uses: for example, they may use a grappling hook to reach a high place, or place a ladder over a pit.

Since verbal communication might not always be an option, an “emote” system with multiple callouts will be introduced to help players to coordinate their efforts.

On their way to the top, players collect “stamps” (a form of currency) that they can use to buy power-ups from a shop, to restock gadget uses, or acquire new ones.

In the level, various hazards can be present (or placed by opponent teams), and players need to collaborate to overcome them.

The first team to reach the top of the skyscraper will win the match. Each player is rewarded in-game currency that they can spend to buy cosmetic items (i.e. costumes) to decorate their character.

### **3. Audience, Platform, and Marketing**

#### **3.1. Target audience**

We intended to sell this game to the broadest audience possible, therefore it should appeal to all kinds of players, regardless of age, gender, or skill.

We aim at having a game with a very flat learning curve, and that can be learned quickly thanks to intuitive mechanics. Complex mechanics would indeed alienate the most casual portion of our audience. In addition to that, we should aim to have a user interface that is immediately understandable by everyone, meaning that images and icons should be preferred to text: the advantage is that the game can be easily understood even in geographic regions for which a localization doesn't exist.

While the game can be played solo online (through matchmaking), the game is also well suited to be played in a friendly context, such as with friends online, or even locally as a couch-party game. This is a factor to keep in mind when deciding the price of the game, since we can expect that a pricey game will sell less, and a more competitive pricing will allow us to reach certain groups more easily (low-income people, children with a budget...).

Using Bartle's player types, we want to engage mostly players who are *socializers*, while offering features that may appeal to *achievers*.

- *Socializers* should be attracted by the collaborative nature of the game, especially if played with friends, which should make communications and coordination easier, as well as receiving direct feedback of their actions.
- There's an achievement/trophy system in place that will provide some engagement for *achievers*; we'll tie certain cosmetic items to particular milestones in the game, too. Other players will be able to see a player's rarest achievement while waiting in the lobby.

Bartle's player types are pretty limiting when it comes to classifying certain broader categories of players: *killers* do enjoy watching others lose, but the game is designed in a way that limits their ability to obstruct their opponents. Players that generally enjoy light competition should find this game interesting, too.

## Personas

<b>Name</b>	Erik
<b>Age</b>	24
<b>Country</b>	Denmark
<b>Occupation</b>	Student
<b>Player type</b>	Hardcore, competitive player
<b>Description</b>	He doesn't care much for the story or world of a game, he mostly enjoys winning and mastering the mechanics. He likes to show off his skills. He has more than enough free time to dedicate to games.

He is part of a category of players we want to have in our audience. While he's not a perfect fit for our game, still he could find enough hours of entertainment from the game to justify the purchase.

<b>Name</b>	Hiromi
<b>Age</b>	32
<b>Country</b>	Japan
<b>Occupation</b>	Retail employee
<b>Player type</b>	Prefers handheld devices, enjoys grindy games
<b>Description</b>	She has a busy life and little time to play games, so she tries to fit gaming in her commuting time. She enjoys a wide range of games, from relaxing ones like Animal Crossing to hardcore ones like Monster Hunter. She used to play on a Nintendo 3DS, but now she plays on a Nintendo Switch.

Unfortunately, she is likely not a suitable player type for our game, mostly because of the requirement of portability and Internet connection availability. Our game requires at least 4 players, with a stable Internet connection. While with no doubt she could enjoy our game, she may not find the time and place to play it.

<b>Name</b>	Russel
<b>Age</b>	55
<b>Country</b>	United States, Texas
<b>Occupation</b>	Office worker
<b>Player type</b>	Casual, socializer, likes games with friends
<b>Description</b>	Nowadays he doesn't have much time to dedicate to games like he used to when he was younger, but enjoys relaxing with friends on weekends by playing video games. Back in his days he used to play lots of Halo, but he now prefers party games who are more forgiving in terms of mechanical skills.

He is a good fit for our game, he could play custom games with his friends or with random people via matchmaking. The game then should not be too demanding on mechanical skills, to accommodate a wide range of players.

<b>Name</b>	Adele
<b>Age</b>	12
<b>Country</b>	Italy
<b>Occupation</b>	Student
<b>Player type</b>	Midcore, completionist
<b>Description</b>	She's a student with a lot of free time, and her main drive in games is to complete all achievements on each game she plays. She doesn't switch games often since her family can't afford full-price titles every month.

She is a player that could find our game interesting if we provide enough content and challenge. Our pricing should also be adjusted to have our game perceived as affordable.

<b>Name</b>	Helena
<b>Age</b>	30
<b>Country</b>	Brasil
<b>Occupation</b>	Office worker
<b>Player type</b>	Casual, new to gaming, plays with friends
<b>Description</b>	She started playing games recently during the lockdown with her friends, such as Among Us. She plays on her laptop, and her Internet connection isn't very stable. She is willing to spare a small budget to buy a game if she'll be able to play it with friends.

Again, this player should be an adequate choice for our player base. We should take care to correctly handle reconnections and similar edge cases.

<b>Name</b>	Cameron
<b>Age</b>	33
<b>Country</b>	Canada
<b>Occupation</b>	Artist
<b>Player type</b>	Hardcore, open minded, likes social interaction
<b>Description</b>	They are mostly interested in single-player RPG games, but they enjoy playing games with their friends, both locally or remotely, since they live far from each other.

Our game should provide options to be played both remotely and locally, in order to ease the setup if a match is played between friends. While this player might not be initially attracted by the game, the social aspect could be a good way to bring friends together.

## **3.2. Platforms**

We plan to release the game on each major supported platform of the current and last generation of consoles, and in the PC market, in order to reach the widest audience possible. These platform we intend to support are:

- Xbox One/Xbox Series S/Xbox Series X
- PlayStation 4
- PlayStation 5
- Nintendo Switch
- PC (Windows, macOS, Linux)

By planning from the early phases of design a common interface layout suitable for every platform, we can reduce the development effort, while at the same time supporting a wide range of devices.

We do not necessarily plan a simultaneous release on each platform (in order to accommodate possible deals of exclusivity or approval delays by vendors). Exceptions made for exclusive publishing deals, we plan to release the game on either Steam or Epic Games Store, in order to benefit from existing APIs for dealing with friends invites and account verification.

The first release will be a public beta on PC.

While on consoles we can rely on standard hardware and therefore we plan very few issues caused by the hardware, on PC we intend to provide limited support only for PC (and possibly macOS), while Linux users will have to rely on community support, given the more varied ecosystem of that OS.

## **3.3. System requirements**

On consoles, we shall guarantee a good compromise between quality graphics and solid performance (At least 1080p@60Hz on Xbox and Playstation, 720p@60Hz on Nintendo Switch).

Here's the minimum requisites for the PC version:

- OS: Windows 10 64bit, macOS 10.11+, Ubuntu 18+
- CPU: Intel Core i5 or AMD equivalent
- RAM: 4 GB
- Graphics: NVIDIA GTX 660 or AMD Radeon HD 7950
- Network: Broadband Internet connection
- Storage: 2 GB available space

### **3.4. Top performers**

While the core idea of the game is not too complicated, few games have incorporated concepts such as ropes and team-based solutions to reach a summit. Few notable examples, which players might be interested in our game are:

#### **Unravel 2**

*Developer: Coldwood Interactive*

*Publisher: Electronic Arts*

*Released: 2018*

*Bartle's player type: Achiever, Socializer*



Unravel 2 is the successor of Unraveled, a platform game which core idea is using the rope the main character is made of to overcome obstacles and solve physics-based puzzles. The sequel adds to the mix a second character, controllable by the same player or by a second one, in local multiplayer. With two characters at players' disposal, the game opens up additional ways to solve puzzles.

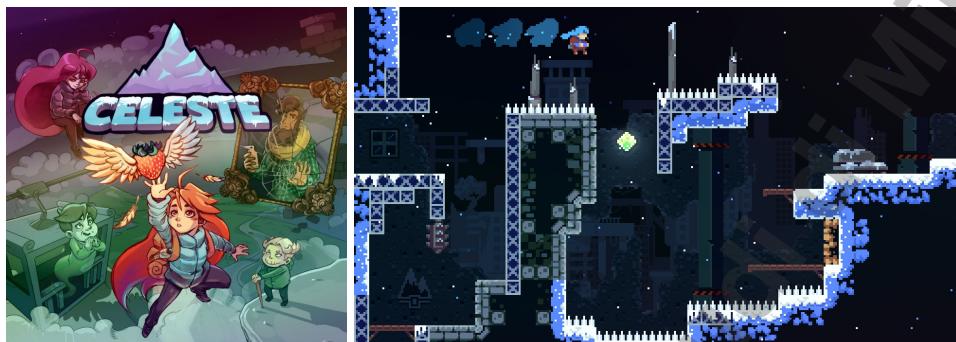
The visual style is photorealistic, the levels are based around real-life props.

## Celeste

Developer/Publisher: MattMakesGames Inc.

Released: 2018

Bartle's player type: Achiever, Explorer



Celeste is one of the most well-received and best-selling platformer games of the last decade. It's a single-player game with meticulously crafted levels, each with unique mechanics, intuitive and responsive controls and an original story to glue together the levels. The player's goal is to reach the top of mount Celeste, with the help of a dash and the ability to climb vertical walls for a short time, two abilities that are always present in all levels.

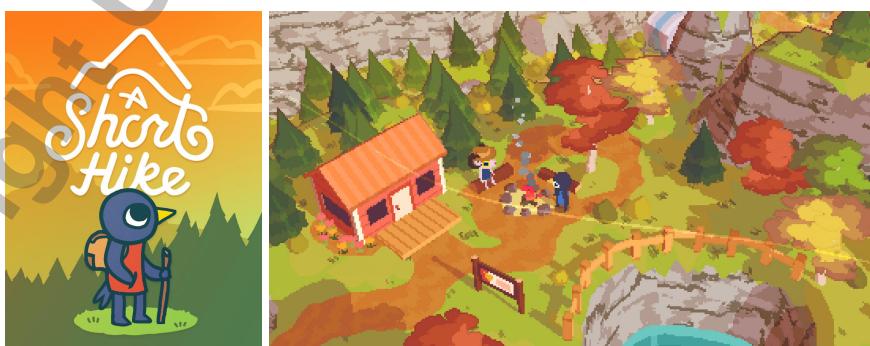
While the overall difficulty is quite high, there are settings to alter certain mechanics to make the game more accessible to casual players who might have troubles in passing a certain level, and the most difficult sections are optional. The visual style is a highly stylized 8-bit pixel art, with vibrant colors and polished animations. The game is accompanied by a great soundtrack, too.

## A Short Hike

Developer/Publisher: adamgryu

Released: 2020

Bartle's player type: Socializer, Explorer, Achiever



A Short Hike is a short 3D game about exploring a natural park filled with friendly NPC, short quests and treasures, with the ultimate goal of making it to the top of the mountain at the center of the map. The player can climb for a

short duration, which can be extended by finding “golden feathers”, which are rewarded through exploration or by completing the NPCs’ quests. A minimum of 7 “golden feathers” is required to complete the game. The player can also glide (since the main character is a bird) to access certain areas of the map. There are multiple ways to climb to the top of the mountain.

The game features an original visual style: while the game is 3D, it uses a shader to pixelate the graphics, beside toon-shading and a warm color palette.

## Spelunky

*Developer/Publisher: Mossmouth, LLC*

*Released: 2008*

*Bartle's player type: Explorer, Killer, Achiever*



Spelunky is a procedurally-generated, difficult platformer with roguelike elements where the player must find the exit of each level while avoiding deadly traps and enemies and collecting as much loot, weapons and tools as possible. At the player’s death, they must start a new run in another randomly generated map. It’s possible to play in local multiplayer up to 4 players, and features a PvP arena mode.

Players have multiple approaches to complete a level, each with its own pros and cons, and while the game is extremely difficult, it’s never unfair.

The visuals are 2D, cartoonish graphics, with colorful elements in dim level.

## Fall Guys

Developer: Mediatonic

Publisher: Devolver Digital

Released: 2020

Bartle's player type: Achiever, Socializer



Fall Guys is a multiplayer 3D platform battle royale game, where up to 60 players try to survive many minigames such as obstacle courses, team tag or a simplified soccer. Players can move, jump, dive, and grab certain objects and other players. Players who lose a minigame are disqualified. The last standing player, or the first to reach the end of the final level, wins.

A match usually lasts for up to 20 minutes, while each minigame lasts for 3-5 minutes.

It's possible to team with up to 3 friends in online multiplayer.

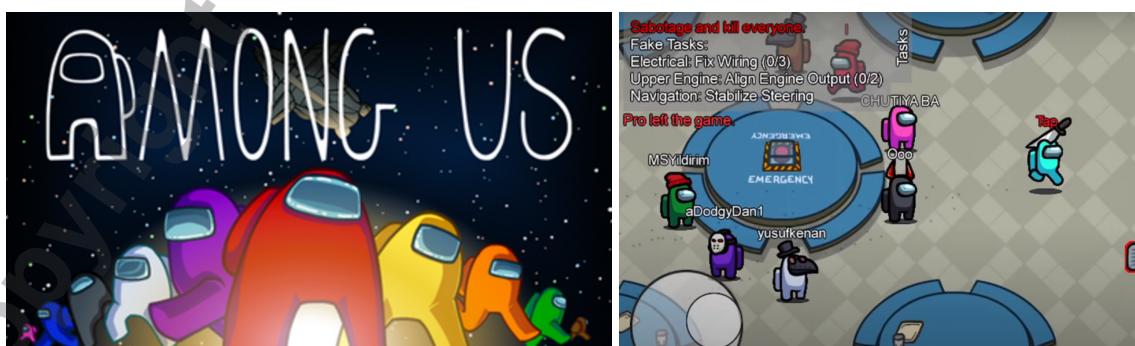
The game is quite frenetic, and the colorful, minimal visual style clearly defines the level layout. Players can customize their in-game character (who resembles a jelly bean) with many costumes, both original or licensed by other companies (such as Valve, Sega or Bethesda).

## Among Us

Developer/Publisher: InnerSloth

Released: 2018

Bartle's player type: Socializer, Killer



Among Us is a multiplayer social game that spiked in popularity during the Covid-19 pandemic, where “survivor” players have to deduce who’s among them is the “impostor”, a role whose goal is to kill all other players.

Whether the body of a dead player is found, or when there’s a suspect, players may request an “emergency meeting” where they can discuss who is acting suspicious and vote out that player (who will be then eliminated from the match, and whether they were the “impostor” or not).

“Survivors” win if they manage to complete a certain number of minigames called “tasks”, or if they vote out the “imposters”. “Imposters” win if they manage to eliminate all the other players.

The game is usually playable with a variable number of players, usually between 5 and 10.

Players can customize their avatar with cosmetic items, play with friends or with random people online. The only in-game way to communicate is via a text-based chat, but only during the “emergency meeting”. When played with friends, usually a third-party voice chat software is also used.

The entire core of the game is the social interaction between players, who can’t be sure of who to trust, and minigames are just a filler task that raises the tension and the stakes of the match.

The art-style is cartoonish and simple, considering the small team behind the game, and the setting is usually a sci-fi environment such as a starship or a space station.

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### Honorable mentions

Donkey Kong (1981), Ice Climbers (1985), Death Stranding (2019), Deep Rock Galactic (2020)

### 3.5. Features comparison

While any of the previously mentioned titles does not feature direct online multiplayer, we believe that the some core ideas behind those games would translate well to a meaningful online experience that focuses on players' collaboration.

We aim to put less focus on traditional hardcore platformer elements, such as precise jumps and memorizing sequences of obstacles, and more emphasis on the ability to solve puzzles in a team of players. That said, it's important to understand the achievements of the most successful platformers, such as *Celeste*, of which one key feature is the responsiveness of the player's movement, and the introduction of a well-thought climbing mechanic.

Considering the difficulty spectrum of the mentioned games, we have games like *Unravel 2* and *A Short Hike* on the easy/accessible side, and games like *Celeste* and *Spelunky* on the challenging/hardcore side.

*Unravel 2* offers a more relaxed experience if played by two players, yet proving good puzzles.

*Spelunky*, especially when played with friends, can get easily frustrating.

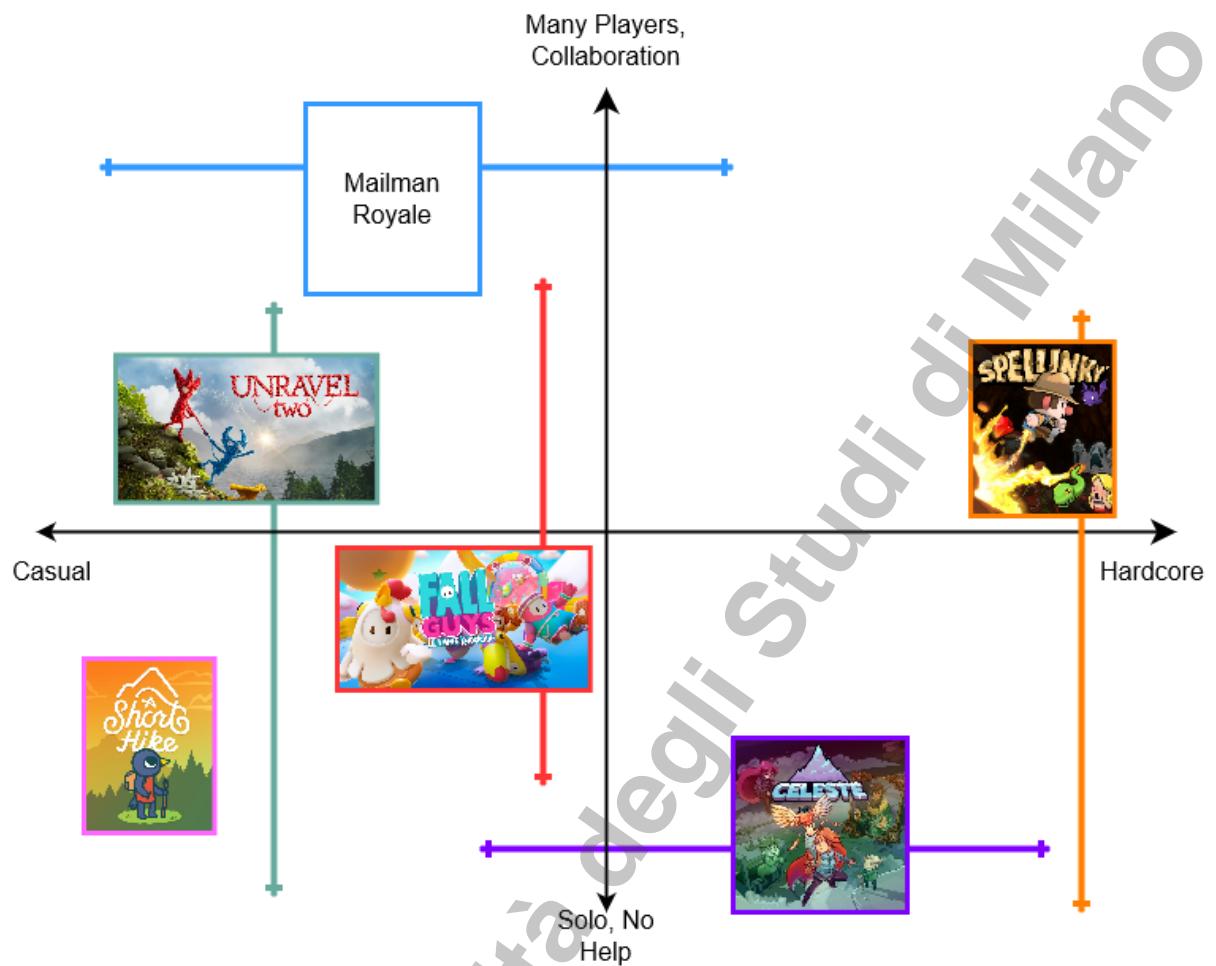
We aim to bridge the two visions by bringing a little "sane" competition between teams of friends, lowering the overall mechanical skill requirement but encouraging problem-solving related skills.

While Mailman Royale is perfect as a party game to be played with friends, we want it to be also playable online without need for integrated voice chat, and implement an "emote" system to allow for non-verbal/non-written communication.

Features	<i>Mailman Royale</i>	<i>Unravel 2</i>	<i>Celeste</i>	<i>A Short Hike</i>	<i>Spelunky</i>	<i>Fall Guys</i>	<i>Among Us</i>
Platformer type	2.5D	2D	2D	3D	2D	3D	N/A (2D)
Player type	Casual, Hardcore	Casual	Hardcore, Casual	Casual	Hardcore	Casual	Casual
Gadgets	Yes	No	No	Yes	Yes	No	No
Multiplayer	Yes (4-8, Online & 4 Local)	Yes (2, Local)	No	No	Yes (1-4, Local)	Yes (up to 60, Online)	5-12 (Online & Local)

<i>Climbing</i>	Yes	No	Yes	Yes	No	No	No
<i>Players can die</i>	No	Yes	Yes	No	Yes	Yes	Yes
<i>Players can buy power-ups</i>	Yes	No	No	Yes	Yes	No	No
<i>Levels are procedurally generated</i>	Yes	No	No	No	Yes	No	No
<i>Requires players' collaboration</i>	Yes	Yes	N/A	N/A	Yes	Sometimes	No
<i>Checkpoints</i>	Yes	Yes	Yes	N/A	No	Yes	No
<i>Setting</i>	Future	Present	Present	Present	Present	N/A	Future
<i>Cosmetics (e.g.: skins)</i>	Yes	No	No	No	No	Yes	Yes
<i>Average length of a level/match</i>	10-15m	20-30m	20-40m	15m-1h 30m	5m-10m	5-20m	10m

In the following image, we compare our game core features to the possible competitors, highlighting the niche we intend to fill.



## 4. Legal Analysis

The game is an original IP. The name "Mailman Royale" is not currently utilized or trademarked.

We do not aim to copy any particular visual style in a way that could be identified as plagiarism.

The mechanics that may be present in similar games are iterated upon in a way that does not result in a blatant copy of those games.

Any assets (graphics, sounds, music, art...) will be obtained through one of the followings:

- produced internally** to the development team
- commissioned** to external contractors
- licensed**, in case of third-party off-the-shelf content

All software needed to produce the game will be legally acquired and/or licensed.

In the case of open-source software, licenses shall be analyzed in order to determine whether they allow us to sell the software.

The following legal documents shall be produced before launch and adhere to local laws of countries where the game will be sold:

- a. Terms of Services (ToS): regulates what players may and may not do with the online service we'll provide (i.e.: cheats such as packet manipulation are not allowed, as well as DDoS attacks), and how we'll handle such scenarios (i.e.: banning the player)
- b. End User License Agreement (EULA): specifies what the player may and may not do with the software provided to them (i.e.: not reselling or altering the software)
- c. Privacy Policy: clarifies how we'll manage the player's data we may collect and how (i.e.: aggregated stats to understand what's wrong in a level, or what hardware they play the game on)

## 5. Gameplay

### 5.1. Overview

- Team-based multiplayer 2.5D vertical platformer
- Play locally or online with 4-8 players
- Multiple teams compete to be the first to climb to the top of a futuristic skyscraper.
- Players in the same team are bound together by a rope, and have to coordinate their moves and make use of unique gadgets in order to overcome obstacles and succeed.

### 5.2. Gameplay description

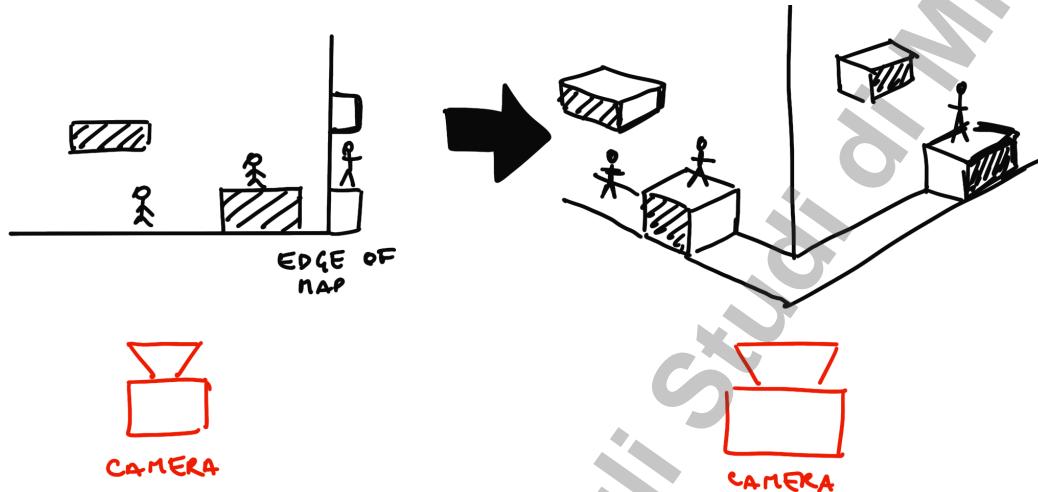
To start a match, the player joins or creates a lobby. When there are enough players, teams are formed and the match starts.

A team can be composed from 2 to 4 players (depending on the selected mode), and each team in the same match must have the same size, to ensure balance.

A match should not last longer than 15 minutes, in order to be able to fit in the schedules of the most busy players.

The map is procedurally generated from a set of premade, hand-crafted blocks. Since there is a maximum of 4 teams, the skyscraper where the game takes place will have 4 identical sides. By standing near the edge of a side of your

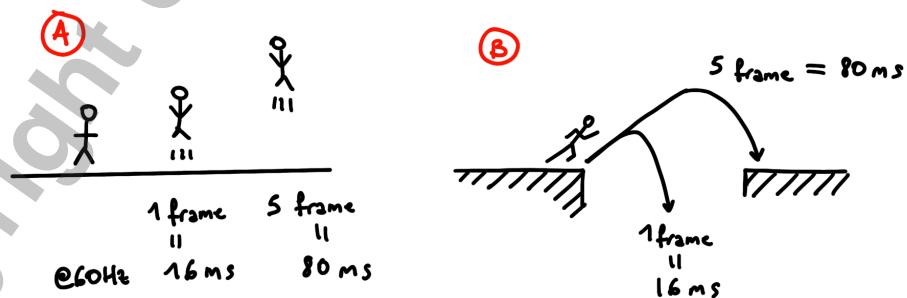
side, the camera rotates in a way that shows what's happening on the neighbouring side (Fig. 1): a team may decide to move to the side of the map of another team, to obstruct them (if leading) or exploit already placed gadgets (if behind). If there are less than 4 teams, empty sides of the map can still be accessed.



*Fig. 1: When the player approaches the border of the map, the camera rotates to show the other side.*

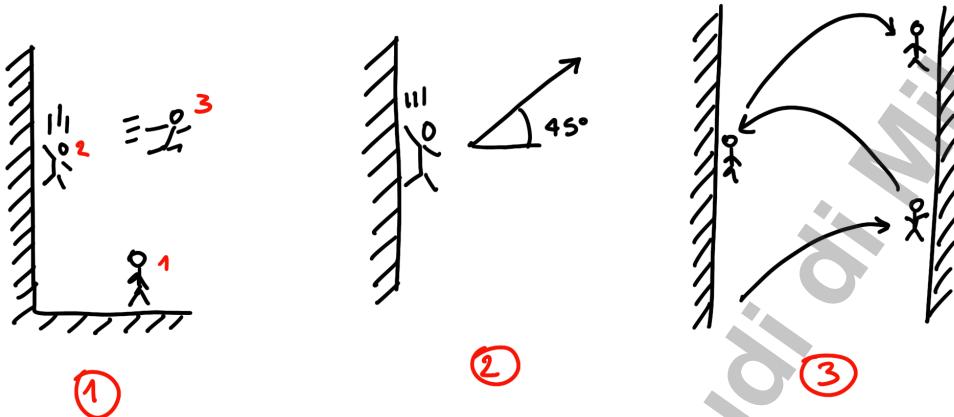
Each team spawns at the lowest level of the skyscraper, and there's a timer before the match starts. In that timeframe, each player can decide a starting gadget from a list of available gadgets. If no gadget is selected, a default gadget gets automatically equipped.

Being a platformer, we have to offer players a familiar way to control their character: the player can move left and right, jump at different heights (Fig. 2) and perform wall jumps (Fig. 3). Players cannot run/dash (because of the rope mechanic explained later).



*Fig. 2: The player can jump at different heights by holding the jump button for a longer period of time (e.g.: quickly tapping the jump button will result in a*

*player jumping a short height; holding it for the whole duration will result in the player reaching the maximum height possible for the jump).*



*Fig. 3: While the player is touching a wall, climbing, or sliding on it, they can press the jump button to jump at a fixed angle (2) from the wall; wall jumps can be chained between two walls to quickly reach higher places (3).*

In addition to those elements, we want to introduce a climbing mechanic similar to the one present in *Celeste* or in *A Short Hike*: players can climb walls for a limited duration (less than 5 seconds) after which they will start sliding down. While climbing, a player is able to perform a wall jump.

A core feature of the game is that players belonging to the same team are tied together by a rope, in a fashion similar to real-world mountain climbers. This choice has two key consequences:

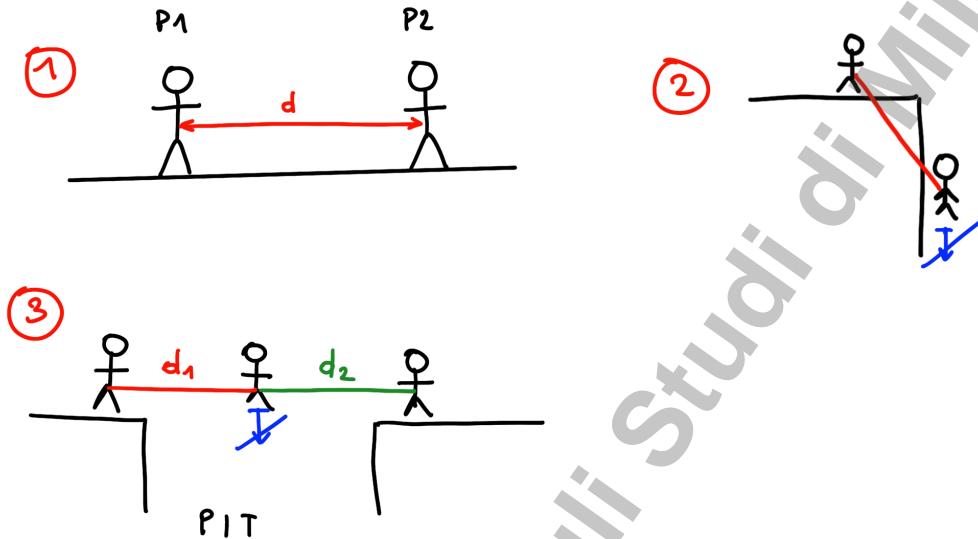
- It forces players to collaborate during their movements (since if two players go in opposite directions, they will reach a point where they can't move any further)
- It opens up new ways of overcoming certain obstacles, for example, one player might pull another up a vertical wall.

Each player has an amount of rope that extends automatically up to a limit. Players can pull and "retract" the rope, effectively shortening it: this can be used to facilitate climbing certain obstacles. The rope is indestructible and cannot be detached from a player.

When players spawn, the order they spawn determines the order they are linked together: the first is bound to the second, the second to the third and so on.

Ropes behave in a very simplified way. The reason is that it makes the online implementation and subsequent synchronization way easier and lightweight. We can easily justify this behaviour by having some technological gadget instead of a rope, like a "magnetic belt" or equivalent.

With such a device, players are bound in a spherical area around the player(s) they are linked to.



*Fig. 4: Players can move freely as long as the distance between them is between the imposed constraints. Players may leverage these constraints to prevent a player from falling down or help them climb up (2), or bridge pits (3).*

## Gadgets

Players can select a starting gadget at the beginning of the match and buy or find others along the way.

Gadgets allow players to overcome hazards, open up alternative routers or to slow opponents or alter certain level elements in their side of the map.

Players are able to preview where a gadget will be placed/aimed at, and they can confirm or cancel the use of said gadget. For example, a player using a grappling hook will see a trajectory of where the hook will be shot, and they can adjust it to aim at a certain spot.

There are two kinds of gadgets: climbing-gadgets and obstacle-gadgets. Gadgets do not deal damage on opposing players, but they can only hinder their movement or progress. Even "offensive" gadgets may find a use to overcome certain obstacles (e.g.: using a wind generator to gain speed to jump across a gap).

Gadget choice should be important, but not mandatory: we can artificially limit the number of available gadgets at the beginning of the match to avoid certain combinations that might prove to be too strong.

Certain gadgets can also be used to bridge the gaps between two teams that are far apart, therefore putting in danger the first team, or, alternatively, bringing the last team closer to the first, similarly to what happens in *Mario Kart*.

### Climbing Gadgets

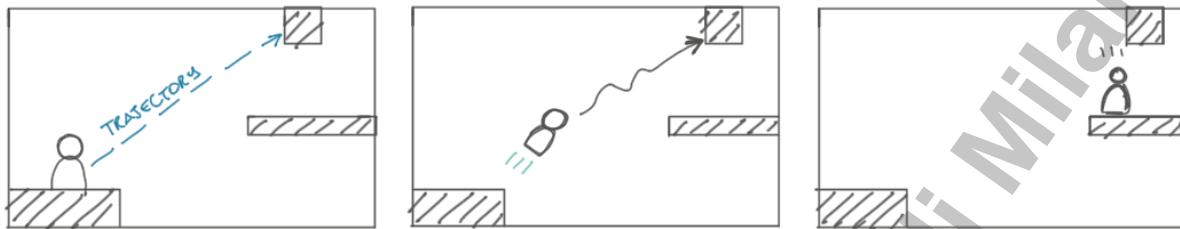
Name	Effect	Uses	Targeting	Cost
Grappling Hook	Shoot a rope with a grappling hook that sticks to predetermined spots in the level geometry. Allows to reach high places or to swing across gaps.	2	Directional	1
Ladder	Position a ladder vertically to reach a higher position or use it horizontally to cover a gap.	1	At player's side	2
Drone with a rope	Send a drone flying with a small rope attached. Players can grab the drone and jump from it.	1	Directional	2
Springboard	Place a springboard. Players can use it to boost their jump height.	1	At player's position	2
Platform Gun	Shoots a thin platform that sticks to the nearest surface. Can be used to bridge gaps, climb an otherwise difficult wall.	3	Directional	3
Flying Taxi	Call a taxi that brings the team to the position of the second-to-last team. Can only be used by the last team.	1	None	3
Christmas box	For 4 seconds, every gadget you use is replaced by another random gadget.	$\infty$	$\infty$	None

## Obstacle Gadgets

Name	Effect	Uses	Targeting	Cost
Wind Generator	Place a device that blows wind in a specified direction, reducing the speed of those moving towards it and boosting it when moving away from it.	1	At player's position	2
Glue	Cover a surface in glue, freezing in place players that step over it.	1	At player's position	5
Portable Black Hole	Throw a small black hole that travels to the first team and attracts those players towards its center for a set duration. The first team cannot get this item.	1	None	2
E.M.P.	Travels to the first team, disables their gadgets and destroys placed gadgets in a radius. The first team cannot get this item.	1	None	3

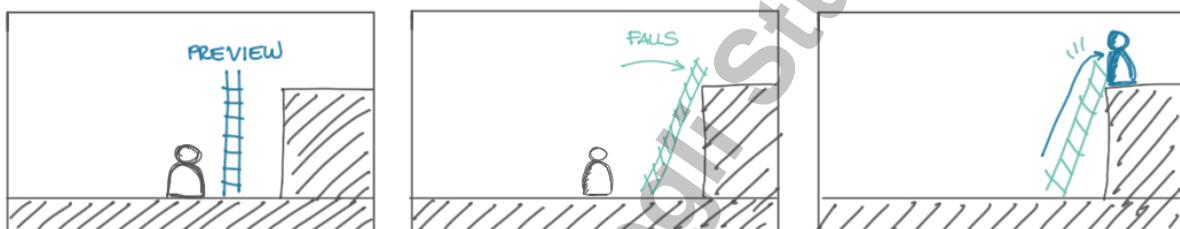
## Gadgets

- **GRAPPLING HOOK**



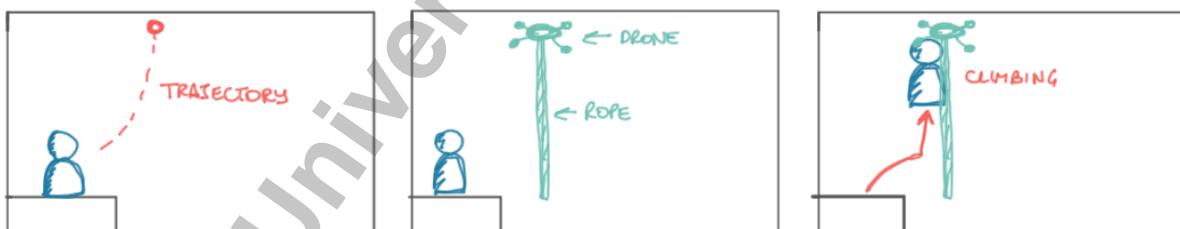
The player equips the gadget, targets the point they want to grapple, and then they get pulled towards that point.

- **LADDER**



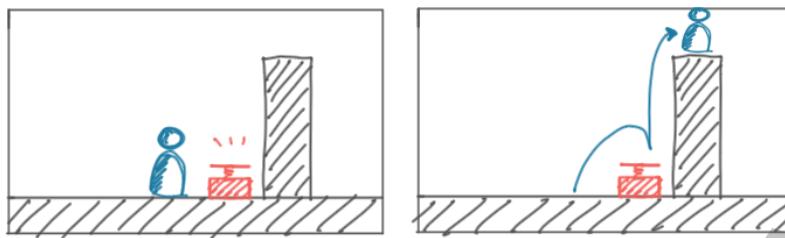
The player equips the gadget and sees where the ladder will be spawned. If the ladder is placed, it is pushed away from the player, to make it fall on one side. The player can then climb the ladder or hold the "down" direction to pass underneath it.

- **DRONE WITH A ROPE**



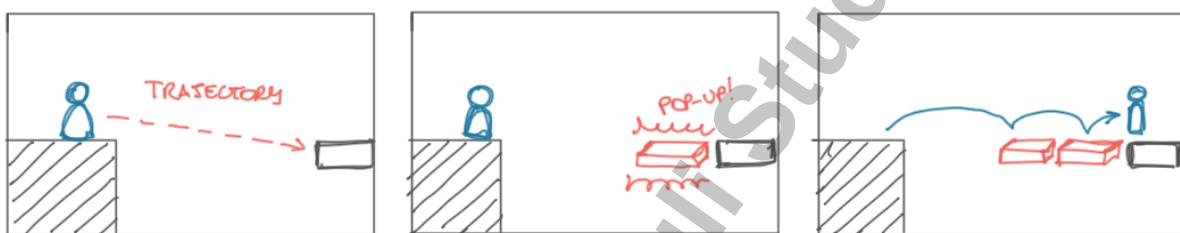
The player equips the gadget, and sees the trajectory that the drone will fly, and where it'll stop. Then the drone will deploy a rope that the players can climb.

- SPRINGBOARD



The player drops a small block. Any player that steps on it will be launched into the air. This is useful to reach high places that a player cannot normally reach by jump.

- PLATFORM GUN



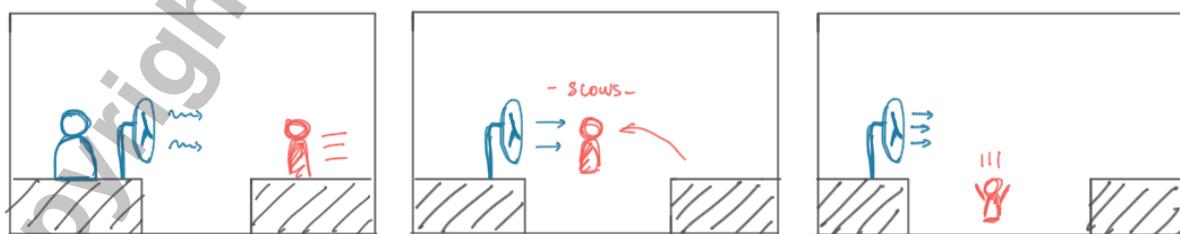
The player targets a direction, and shoots a projectile that on impact will expand into a solid platform. Players can use this gadget to bridge wide gaps.

- FLYING TAXI



This gadget can only be obtained by the last team. On use, a flying taxi will pass next to the player, automatically picking them up. The screen will briefly fade and the players will reappear next to the second-to-last team.

- WIND GENERATOR



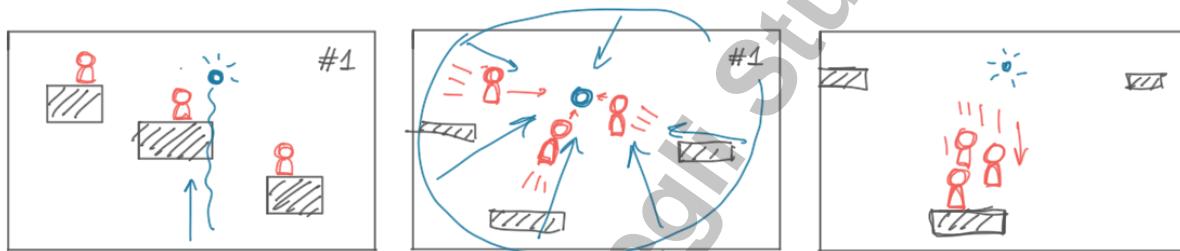
This gadget can be placed to generate a wind that will slow down players that move towards the generator, or will accelerate players that move further from it. This can be used to create traps for opposing teams, or bridge gaps by obtaining additional movement speed.

- **GLUE**



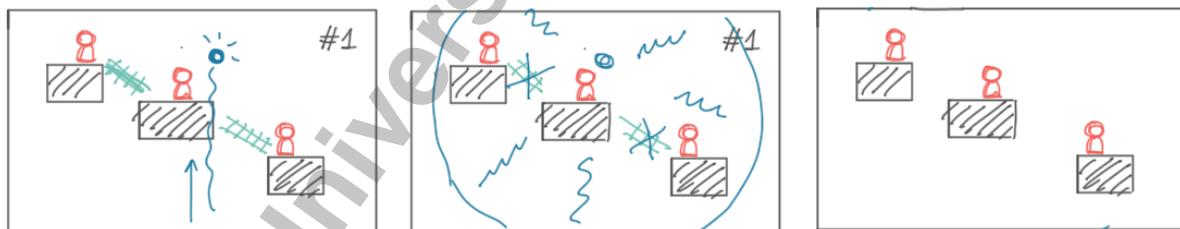
This gadget is placed on a platform and will freeze in place opponent players that step on it for a set duration of time.

- **PORTABLE BLACK HOLE**



This gadget is not available for the first team. This gadget will fly toward the first team, then it'll pull the players towards its center for a set duration of time (5s). After it expires, the players will fall. Players cannot escape from it.

- **E.M.P.**



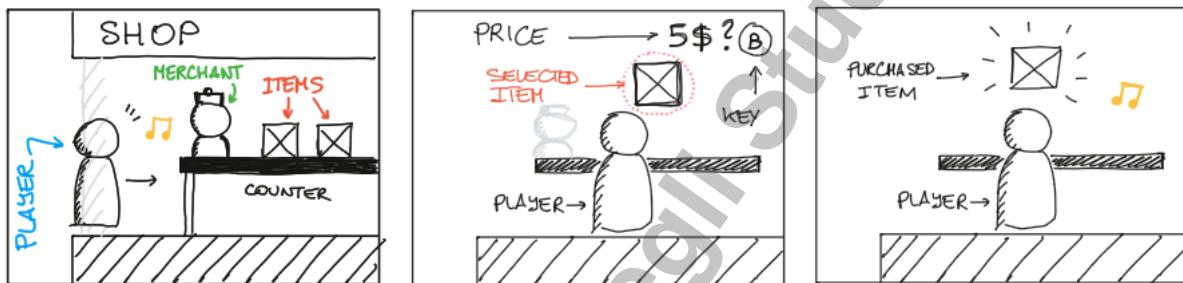
This gadget is not available for the first team. This gadget will fly toward the first team, then it'll detonate destroying all placed gadgets in its radius and adding an increased cooldown on the players' item caught in its radius.

## Shop

During the climb, special shops appear and players may interact with them to buy/stock up gadgets by trading the collected “stamps” (the in-match currency of the game). More powerful gadgets cost more stamps. Interaction with shops is optional and players may decide to pursue the climb in order to keep their advantage. Each shop offers one low-tier (1 coin) gadget, one mid-tier (3 coins) and one high-tier (5 coins).

Players may access shops that appear on another team’s side of the map, creating a possible competition for the best gadget.

### Storyboard



*When the player enters the shop, a jingle (buzz-like bell sound) plays, and the merchant moves towards the player while playing a greeting voiceline. Items are visible to the player, with their price above them. Players can purchase an item by moving next to an item, and pressing the displayed key/button. Purchasing an item plays a sound (e.g.: cash-register) and the purchased item briefly appears above the player's head.*

## Random Items

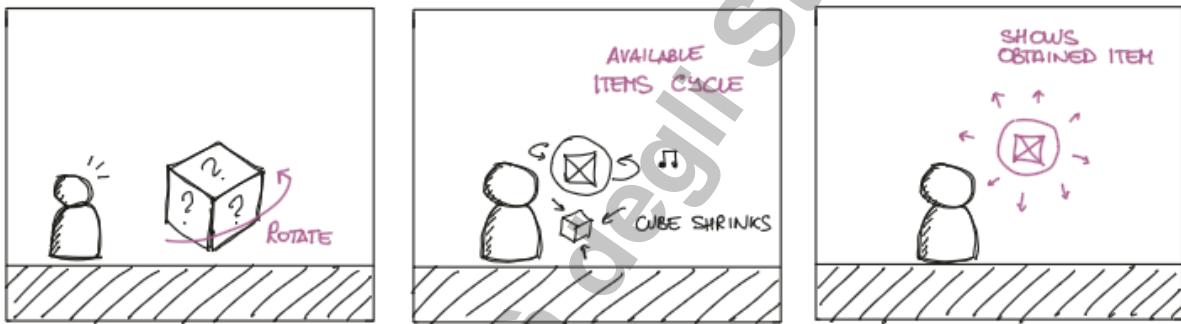
Players may find boxes in specific places containing random objects in them, as an alternative to shops. This is a good way to still provide players with options to approach the climb without planning too much in advance the use of gadgets.

This leads to a more forgiving gameplay, which is what we want to achieve.

This mechanic is similar to the one present in *Mario Kart*: players can walk through one of these boxes to open them, and pick up the gadget in them. If they already have two gadgets equipped, they won't be able to open the box.

Boxes respawns after a set interval (~10 seconds).

### Storyboard



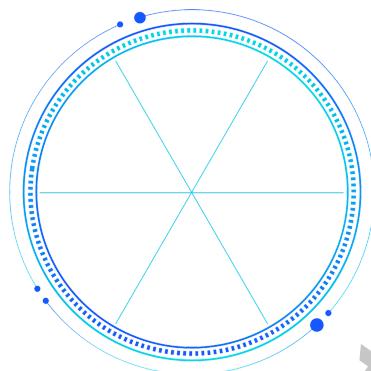
The box (a cube) rotates slowly. When the player with an empty gadget slot collides with it, the cube shrinks quickly, an overlay showing the possible object the player can obtain appears nearby the character's head, and a fitting sound effect plays. After a short time (<1.5s) the item is assigned to the player, is displayed nearby the player head and a jingle plays.



Box reference.

## Emotes

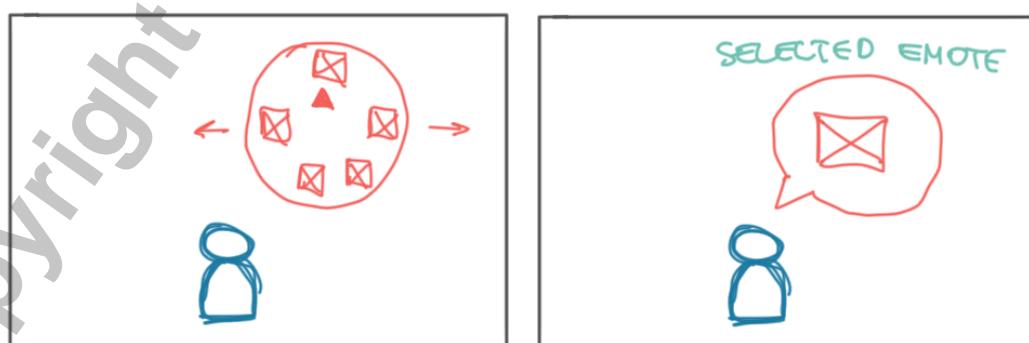
During the match players can communicate with specific emotes that express one concept useful to progress. Emotes can be spawned above the player.



*The emote wheel.*

## Emotes

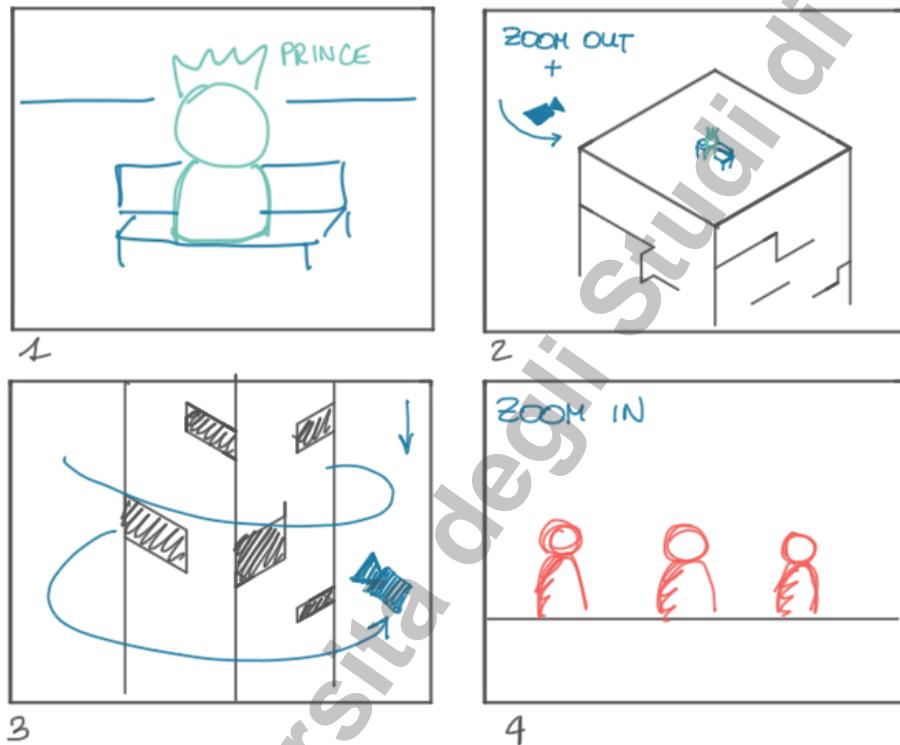
Name	Description	Icon
Well done!	Compliment your team's efforts!	👍
Come here!	Tell your team to gather at your position.	👉
Place a gadget here!	Tell your team to place a gadget here!	🔨
Help!	Tell your teammates that you need help!	🆘
Move to right side!	Tell your teammates that you want to move to the left side of the map.	👉
Move to left side!	Tell your teammates that you want to move to the right side of the map.	👉



## Customization

Players can customize their character with costumes. Costumes can be unlocked through achievements, with in-game currency or with microtransactions. There should be exclusive costumes for each category, in order to make clear what the player did to unlock that specific costume to other players.

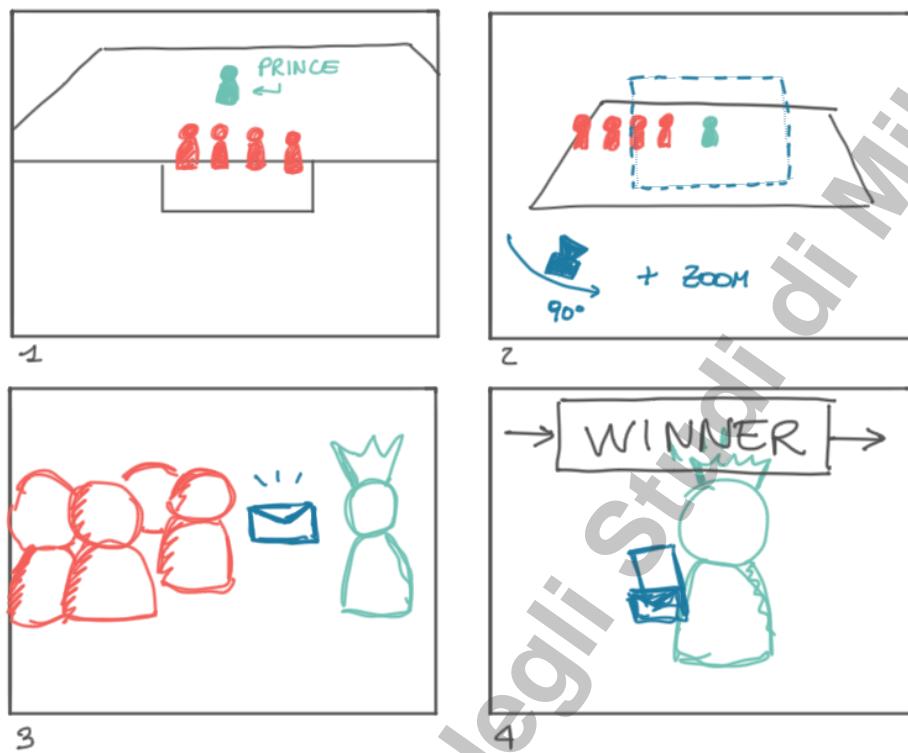
## Intro sequence



In the intro sequence, the opening music plays, we see a close shot of the prince, on the top of the building, in his own terrace. The camera zooms out and pans to show a panoramic shot of the skyscraper at 45 degrees (w.r.t. the ground). Then the camera descends while rotating around the building, previewing the level. Then it cuts to a full shot of the players' team at ground level.

Then the countdown starts and the match begins.

## Win sequence



When a team reaches the summit, the camera zooms out while rotating to a long shot from the side, while the players (in a scripted sequence) advance towards the prince. In the meanwhile, the ending music starts playing. Then the camera zooms in to show the players handing the letter to the prince and they see his reaction, which will be of surprise if they have won or of boredom if they have lost.

### 5.3. Controls

The game is designed for both PC and console players, therefore we must keep a simple input scheme that is not overwhelming for the latter. Beside that, a simplified command scheme helps the casual player to intuitively grasp the controls, without need for extended tutorials. In particular, the most restraining controller we need to support is the Nintendo Switch *JoyCon*, which features only one analog stick and one set of bumpers (labeled *SL*, *SR*).

Neutral

Action	PC Default Keybind	Console Keybind
Move	WASD/Directional Arrows	Left Stick, D-Pad
Jump	Spacebar	South Button
Use Gadget #1 (see " <i>Using gadget #1</i> ")	Q	West Button
Use Gadget #2 (see " <i>Using gadget #2</i> ")	E	North Button
Pickup/Swap with Gadget #1 (when standing near a gadget)	[Hold] Q	[Hold] West Button
Pickup/Swap with Gadget #2 (when standing near a gadget on the ground)	[Hold] E	[Hold] North Button
Open Emote Wheel (see " <i>Using Emotes</i> ")	T	Left Bumper
Pull/Retract Rope	R	Right Bumper

### Using Gadget #1

Action	PC Default Keybind	Console Keybind
Place Gadget	Q, Primary Mouse Click	West Button
Cancel Action (Put away the gadget)	F	East Button

Players cannot move while placing a gadget. They can aim and preview where the gadget will be placed, and either confirm or cancel their action.

### Using Gadget #2

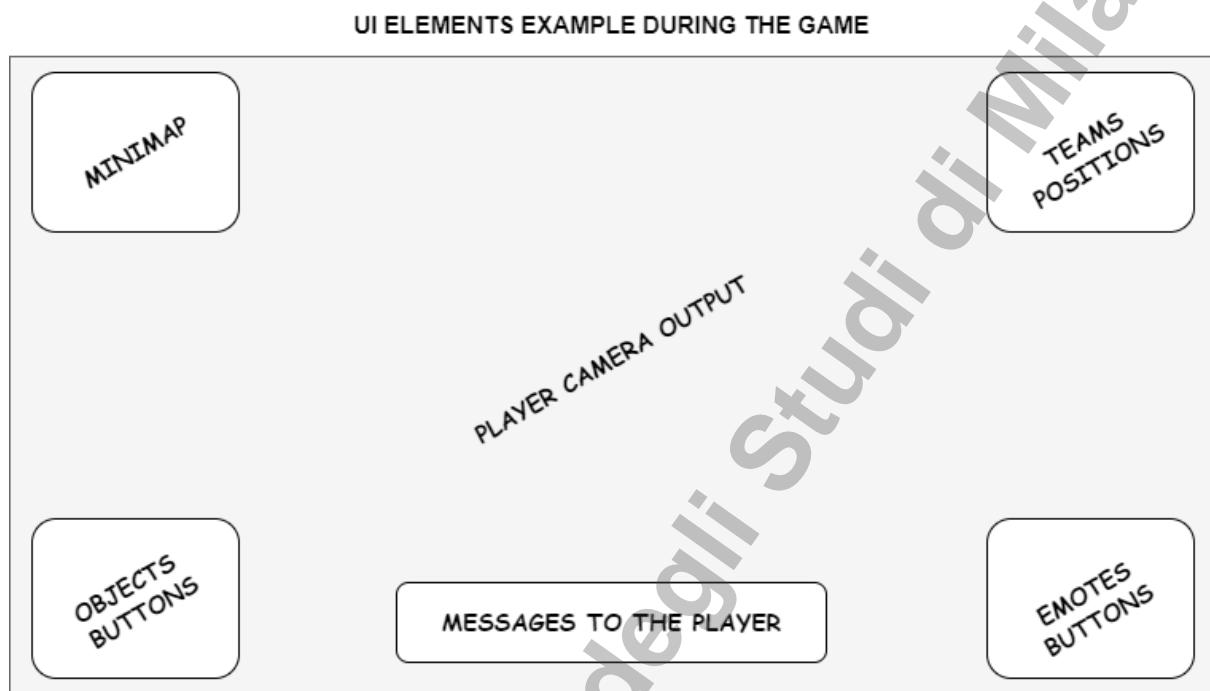
Action	PC Default Keybind	Console Keybind
Place Gadget	E, Primary Mouse Click	North Button
Cancel Action (Put away the gadget)	F	East Button

### Emotes

Emotes should be fast to send and reachable in less than 3 clicks/button presses. The idea is to have an emote wheel that the player can use to select emotes by tilting the Stick/dragging the Mouse in the cardinal direction of the emote they want to use, since it has become a recurring pattern in most recent multiplayer games.

Action	PC Default Keybind	Console Keybind
Send Emote	Release H while selecting an emote, Primary Mouse Click	South Button
Cancel Action (Dismiss the emote wheel)	Release H while not selecting any emote, Secondary Mouse Click	Left Stick Button
Select	Mouse, Directional Arrows	Left Stick, Right Stick, D-Pad

### 5.3.1. Interfaces

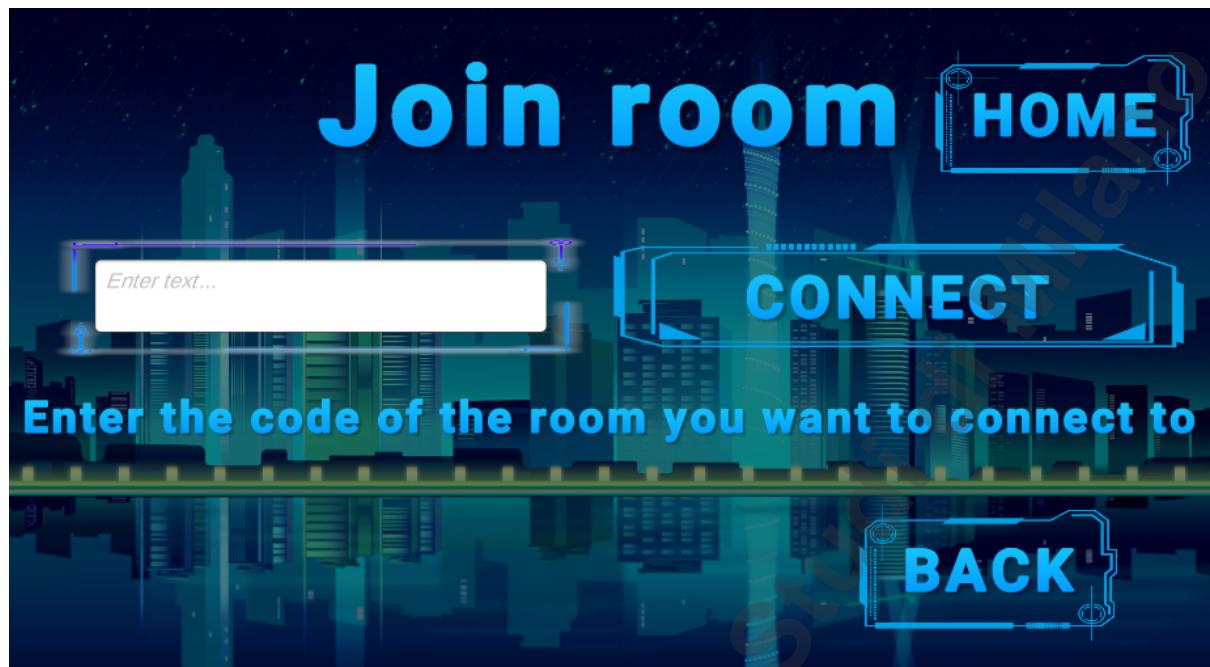


This wireframe shows the position of key UI elements during the match. The whole screen is filled by what the player views. Other features are positioned in an overlay to help the player recall buttons and the current match status:

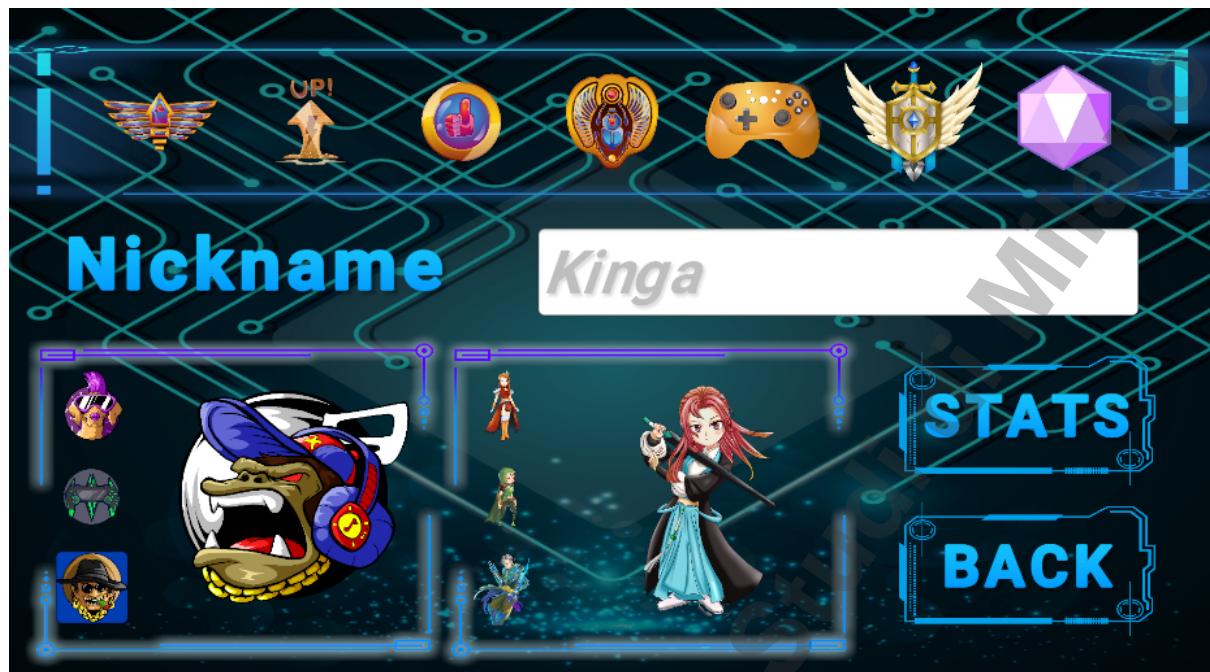
- **MINIMAP**: indicates the position of your and other teams progress in the map, from the start to the finish line. It also shows the position of the shop.
- **TEAMS POSITIONS**: shows your team current placement, depending on the remaining distance from the finish line.
- **OBJECT BUTTONS**: shows which items the player can use, the remaining charges and the associated keybind.
- **EMOTES BUTTON**: remind the player the button to open the "emote wheel".
- **MESSAGES**: in this area are shown any kind of messages and events from players or the server.

The following screens represent the prototype menu screens. See *Section 5.6*.





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In the player's profile screen, players can view their stats, change costume, and see unlocked trophies/achievements.

### 5.3.2. Rules

#### Game

- 4 to 8 players
- Teams are made of the same number of players
- The playable area consists only of the platforms positioned around the perimeter of the skyscraper.
- When the first team reaches the top, they win. Remaining players have a limited amount of time to complete the climb to place as 2nd, 3rd...
- All players in a team must be present on the final platform in order to complete the match.
- If two teams reach the final platform at the same time, they both rank as 1sts.
- Resources are equally distributed on every side of the map
- Each team spawns on the assigned side of the map at the lowest level.

#### Players

- Players cannot attack other players (both allies and opponents).
- Players can move left, move right and jump when standing on solid ground.
- Players can climb vertical walls for a short amount of time, then they start sliding down.
- Players climbing or sliding down a wall can perform wall jumps. Players cannot perform wall jumps if standing on ground.
- Players can climb special elements such as ropes or ladders.
- Players cannot move too far from each other. The maximum distance is affected by the length of the rope binding together two players.
- Players in the same team do not collide with each other.
- Players in different teams do not collide with each other.
- Players can collect in-match currency ("stamps") to spend at shops located on the map.
- Players can change their appearance by changing costumes. Only one costume may be equipped at a time. Costumes are unlockable through achievements, with in-game currency or microtransactions. They cannot be traded or deleted.
- Each player has 2 gadget slots, each binded to a key/button.
- Each player starts with one gadget.
- Players can pick up a new gadget if they have an empty slot, otherwise they cannot.
- Players can communicate with emotes; spamming emotes is not allowed, enforced by a timer ("cooldown").

## Shop

- In-match currency is reset at the beginning and at the end of each match.
- A Shop appears at the same height on each side of the map.
- On each side, a small selection of items (3-4) is available for purchase with in-match currency.
- Players may purchase an item on sale only if they have enough in-match currency to buy it.
- Items on sale cannot be taken unless bought.
- Players can buy items from the opponent shops.
- Sold items cannot be bought again.

## Gadgets

- Every gadget has its own amount of uses, after which it is destroyed.
- Gadgets have a set cooldown (~5 seconds) between uses, if they have more than one use.
- A placed gadget cannot be removed/picked up by others.
- A placed gadget may be used by opponent teams.

### 5.3.3. Scoring and winning conditions

#### Winning conditions

The only ultimate goal in a match is reaching the end of the level first as a team.

In order to win, all members of a team must reach the final platform, regardless of order.

Players of multiple teams might be present on the final platform, but a whole team must be present to count as a winner.

If two teams satisfy the aforementioned winning condition at the same time, both teams will win.

The match doesn't end as soon as there's a winner, but remaining teams can still race to place as second, third and fourth.

#### SCORING:

Performing actions such as collecting in-match currency and reaching the end grants each player a certain amount of points. These points represent a team's score, are summed to the player account experience level, and are purely cosmetic (bragging rights).

A possible distribution of points for each team making it to the end is the following:

- 1st team = 1500 pts.
- 2nd team = 1000 pts.
- 3rd team = 800 pts.
- 4th team = 500 pts.

At the end of a match, a team score is added to each player's individual score, which persists outside of the match. When reaching certain thresholds, the player's level increases.

The player level increases by 1 every 3500 points.

We can use the player's level to unlock rewards for the player when they reach certain milestones, for example.

Certain types of players might find pursuing a high score/level a driver.

The score achieved by a team at the end of the match gets converted to in-game currency ("credits") which players can use to purchase costumes.

The conversion is:  $Credits = Score / 100$

## Achievements

NAME	DESCRIPTION	XP	IMAGE
Put the wings on I	Jump a total of 10 meters	100	
Put the wings on II	Jump a total of 100 meters	200	
Put the wings on III	Jump a total of 1000 meters	400	
Put the wings on IV	Jump a total of 10000 meters	800	
Spendthrift I	Spend 100 stamps at the store	100	
Spendthrift II	Spend 1000 stamps at the store	200	
Spendthrift III	Spend 2000 stamps at the store	600	
Spendthrift IV	Spend 5000 stamps at the store	1500	
Good Job soldier I	Reach level 10	200	
Good Job soldier II	Reach level 50	1000	
Good Job soldier III	Reach level 80	1600	
Good Job soldier IV	Reach level 100	2000	
Good Job soldier V	Reach level 150	5000	
Ace of Equipment	Use 5 different gadgets in one single game	500	

The first time	Complete a match	50	
Sorting letters Mailman	Complete 10 games	300	
Delivery Mailman	Complete 50 games	1500	
Galactic Mailman	Complete 80 games	2400	
Ultra Mailman	Complete 100 games	3000	
Bed Bug	Jump on a player's head using the springboard	1000	
Carpe Diem	Use a gadget placed by another team	100	
Smashers	Block an opposing player 5 times in one match	600	
Scoutmaster I	Reach the top as first in the team 10 times	400	
Scoutmaster II	Reach the top as first in the team 30 times	1200	
Scoutmaster III	Reach the top as first in the team 50 times	2000	
Scoutmaster IV	Reach the top as first in the team 70 times	2800	
Scoutmaster V	Reach the top as first in the team 100 times	4000	
Duke of Mailman	Win 10 matches	500	
King of Mailman	Win 50 matches	2500	
Emperor of Mailman	Win 80 matches	4000	

God of Mailman	Win 100 matches	5000	
Fotofinish	Win for few seconds	100	
See you in the sky	Get on the drone		

## 5.4. Modes and other features

The game will initially feature two game modes: online multiplayer, and local multiplayer. Both game modes work with the same rule set specified in the previous sections.

Teams of an uneven number of players (e.g.: 1v3, 2v4, 2v3v3) are not allowed.

### Online Multiplayer

The following table illustrates the possible team formations for online multiplayer, which allows a maximum of 8 players.

Number of Players	Team formations	Number of Teams
4	2v2	2
6	3v3	2
6	2v2v2	3
8	4v4	2
8	2v2v2v2	4

### Local Multiplayer

If played locally, we have to account for how the screen will be splitted: we'll use a vertical split-screen, so it's wise to allow a maximum of 2 teams, and 2 players per team in order to avoid visual clutter.

Number of Players	Team formations	Number of Teams
4	2v2	2

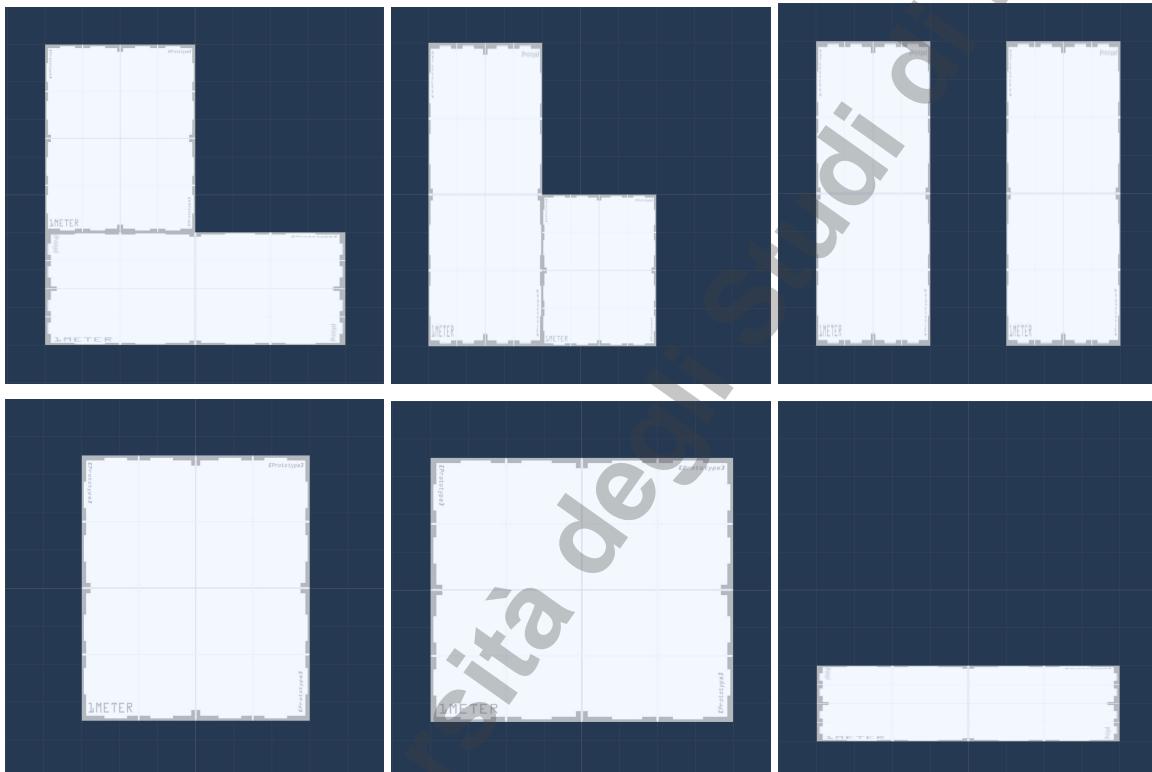
### Notes

Hybrid Multiplayer isn't a feature we plan to support at launch (i.e.: having 2 players locally that play online).

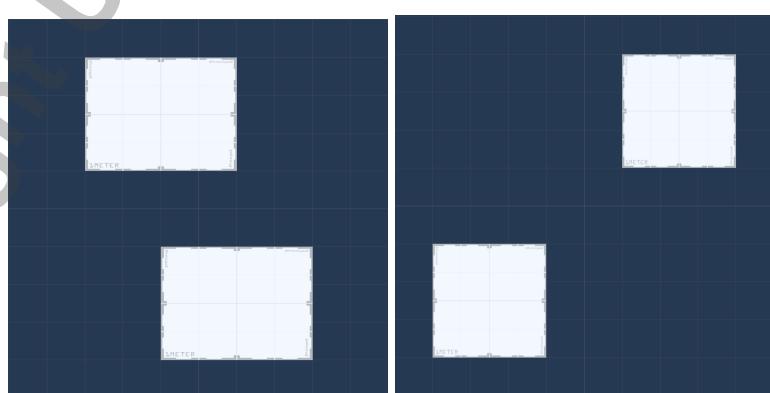
When playing locally, players can customize a temporary character using the unlocked costumes that belong to the owner of that copy of the game. There is no way to sign-in simultaneously with multiple accounts.

## 5.5. Levels

Before each match, the map is generated with pre-established blocks. These blocks are divided according to the way in which the player must behave to overcome them.



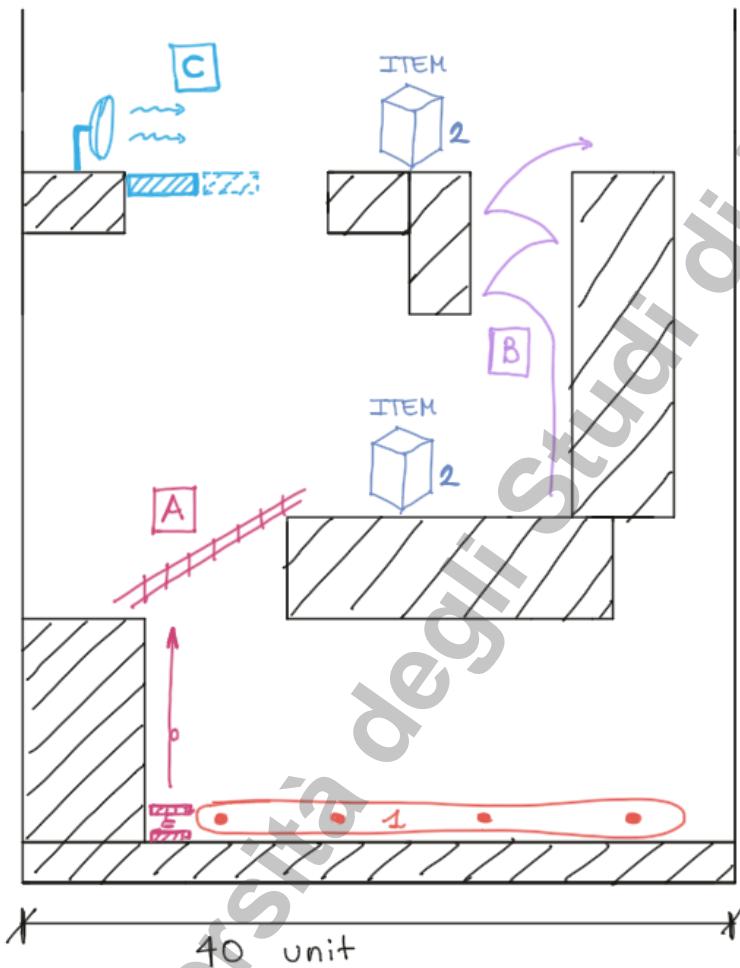
These kind blocks provide players few, straight-forward ways to climb them, depending on how they'll get remixed by the map generator. In certain cases, they might be dead ends, or an obstacle dividing the map in two.



Blocks arranged in this way provide more freedom of approach, and can be climbed with or without the use of gadgets.

## Map breakdown example

### Part 1



The above section represents the bottom of one side of the map.

Players spawn in the (1) area, up to 4 of them side-by-side.

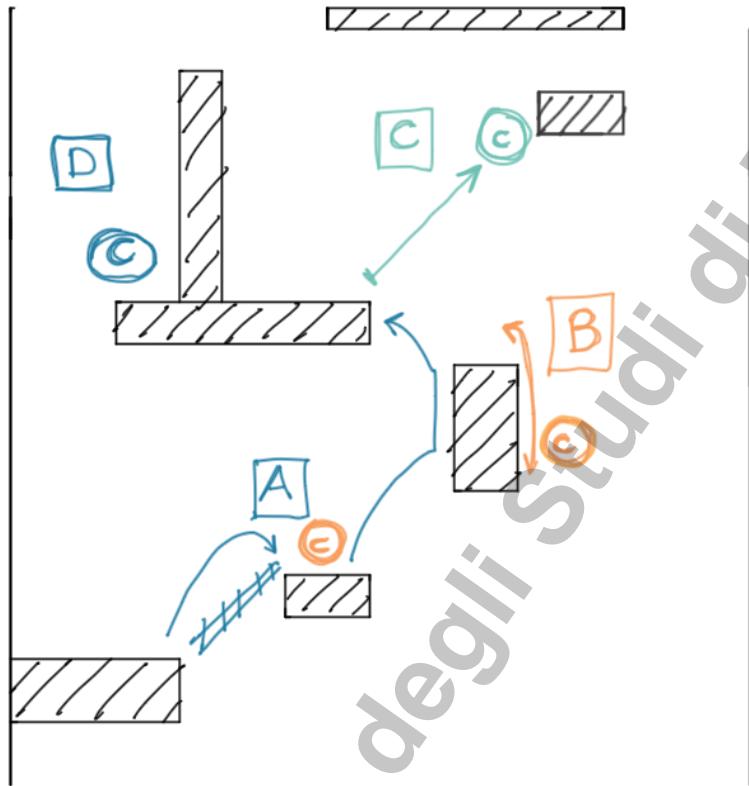
In section (A), players can overcome the first vertical block in different ways: they can try to climb the wall, and depending on its height they might succeed, or they can use a gadget such as the springboard to propel each player up to the ledge. Then they can bridge to the next gap by placing a ladder and using it as a bridge.

The team can then pick up an item (2) and prepare to climb the next section (B).

If they can manage their positioning correctly they can get to the top only by wall-jumping, otherwise they can use another springboard again, a ladder, or throw a drone with a rope.

They can get another item (2) and then find a way to bridge the gap (C). Their opponents might have placed a "wind generator", which would prevent the team from jumping across the gap, and they'd risk falling down. If they have a "platform gun" they might shoot small platforms to fill the gap in order to prevent a fall, or they might try to bridge it with a ladder.

## Part 2



In this example we show how “stamps”/currency (which is useful to purchase items to help players better overcome certain obstacles) can be positioned in order to create different levels of risk-reward challenges. For simplicity’s sake here’s represented as circles with a C in them (they look like coins), in the actual game the image is likely to be different (i.e. stamps).

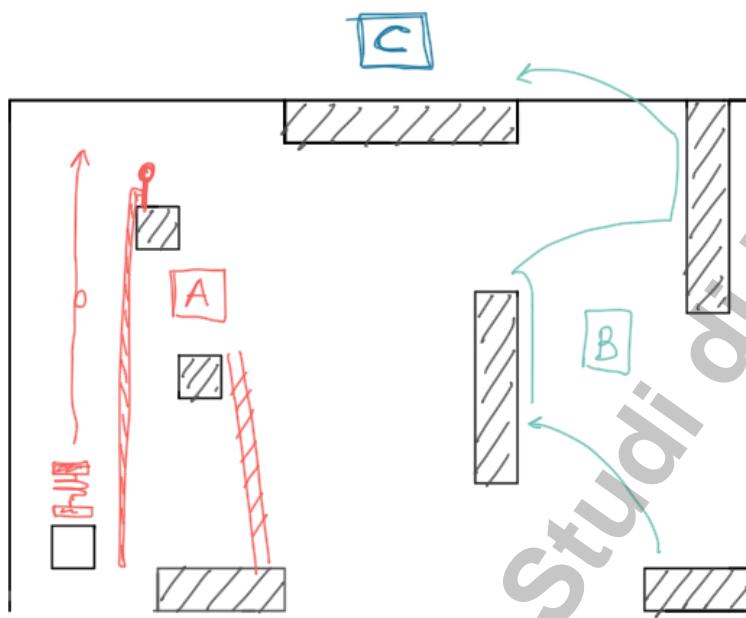
The currency at (A) is on the path the players will likely go through, so it’ll be an easy pickup, plus it might hint at one possible path.

The coin at (B) represents a different risk, because a player may fall down, only to hang idle because of the rope mechanic. A skilled player might even pickup the coin while their teammates are still performing other actions (e.g. the wall-jump).

The coin at (C) is a risky detour, since players will likely waste gadgets (i.e. springboard) in order to reach it more safely, or try to jump at it, likely falling and risking bringing other teammates with them.

The coin at (D) is instead a safe detour, but might be worth it only if the team is ahead of the opponents.

### Part 3



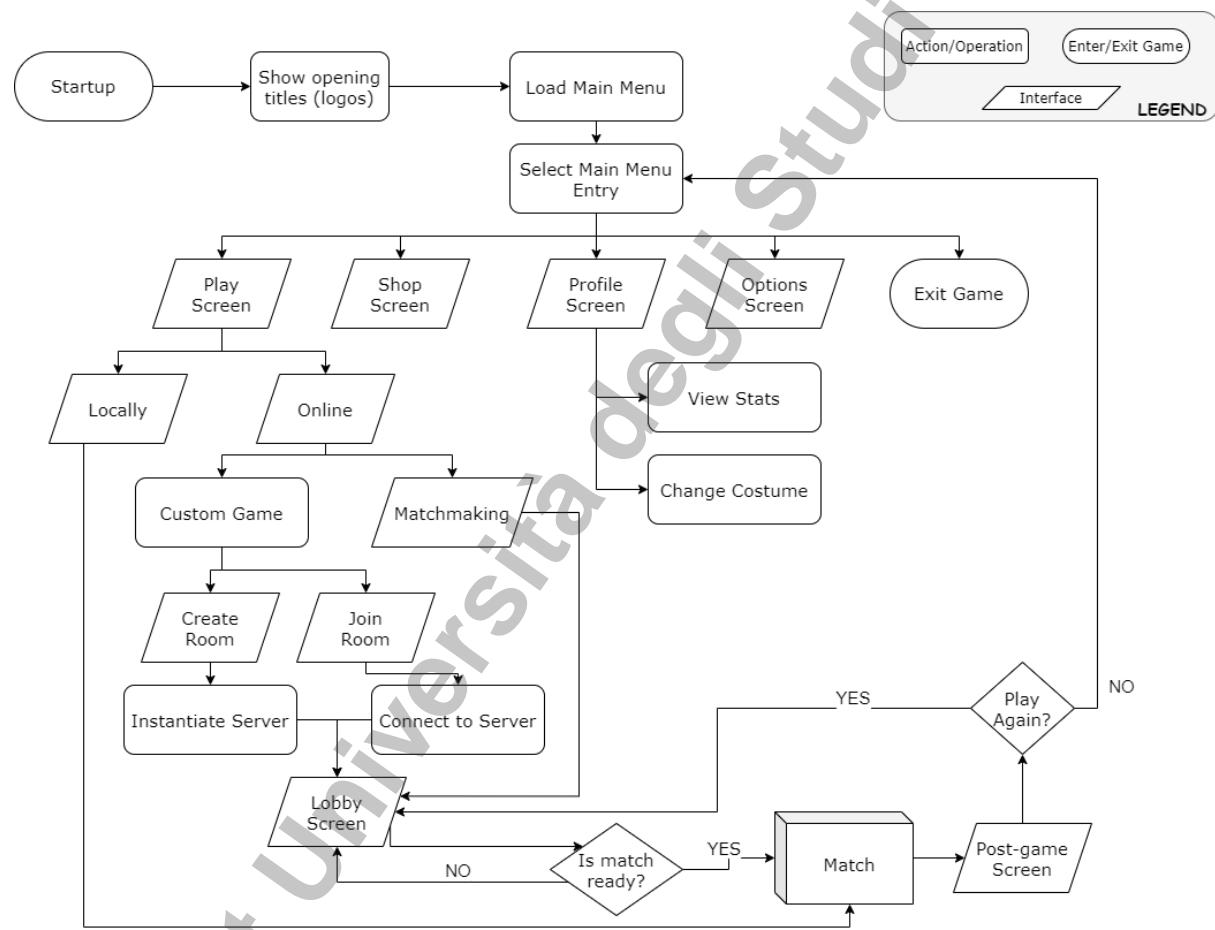
This part represents the end of the level, and the player's objective is to reach the summit (C). They can use the remaining gadgets (if any) to ease their final steps, or they can resort to their platforming skills (B). Other teams might have placed gadgets to obstruct them, for example glue to make a block sticky, or using "offensive" gadgets to displace the team that is one step from victory.

## 5.6. Flowchart

### User Interfaces Flowchart

#### General Overview

In menus, to keep the flowchart easy to read, it's implied that there's always a button to get back to the main menu/previous screen.

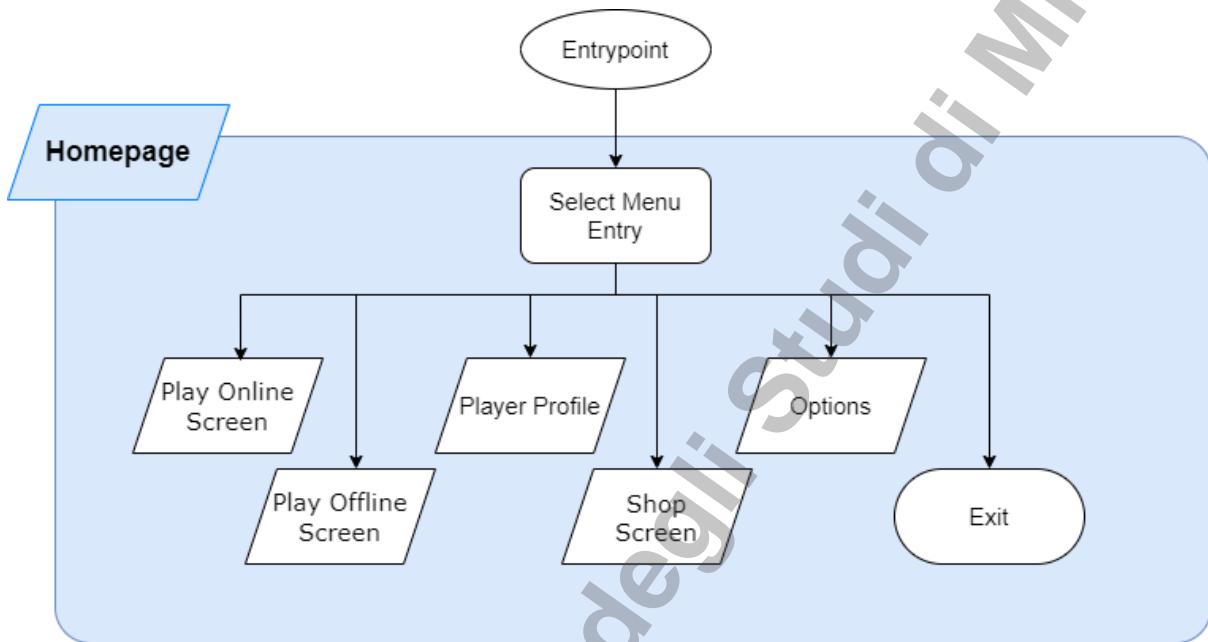


#### Main Menu

In the main menu the player has the following options:

- *Play Online*: loads a screen where the player can choose whether to join a lobby or create a new one. Players can join lobbies by entering a code (custom lobbies) or via matchmaking.
- *Play Offline*: loads a lobby in the 2v2 mode for 4 players with a split-screen.
- *Player Profile*: loads a screen where the player can customize their character, see achievements and check stats.

- *Shop*: loads a screen where the player can spend the in-game currency that they gain through matches.
- *Options*: loads a screen where the player can customize the game parameters such as video and sound settings, and remap inputs.
- *Exit*: quits the program.

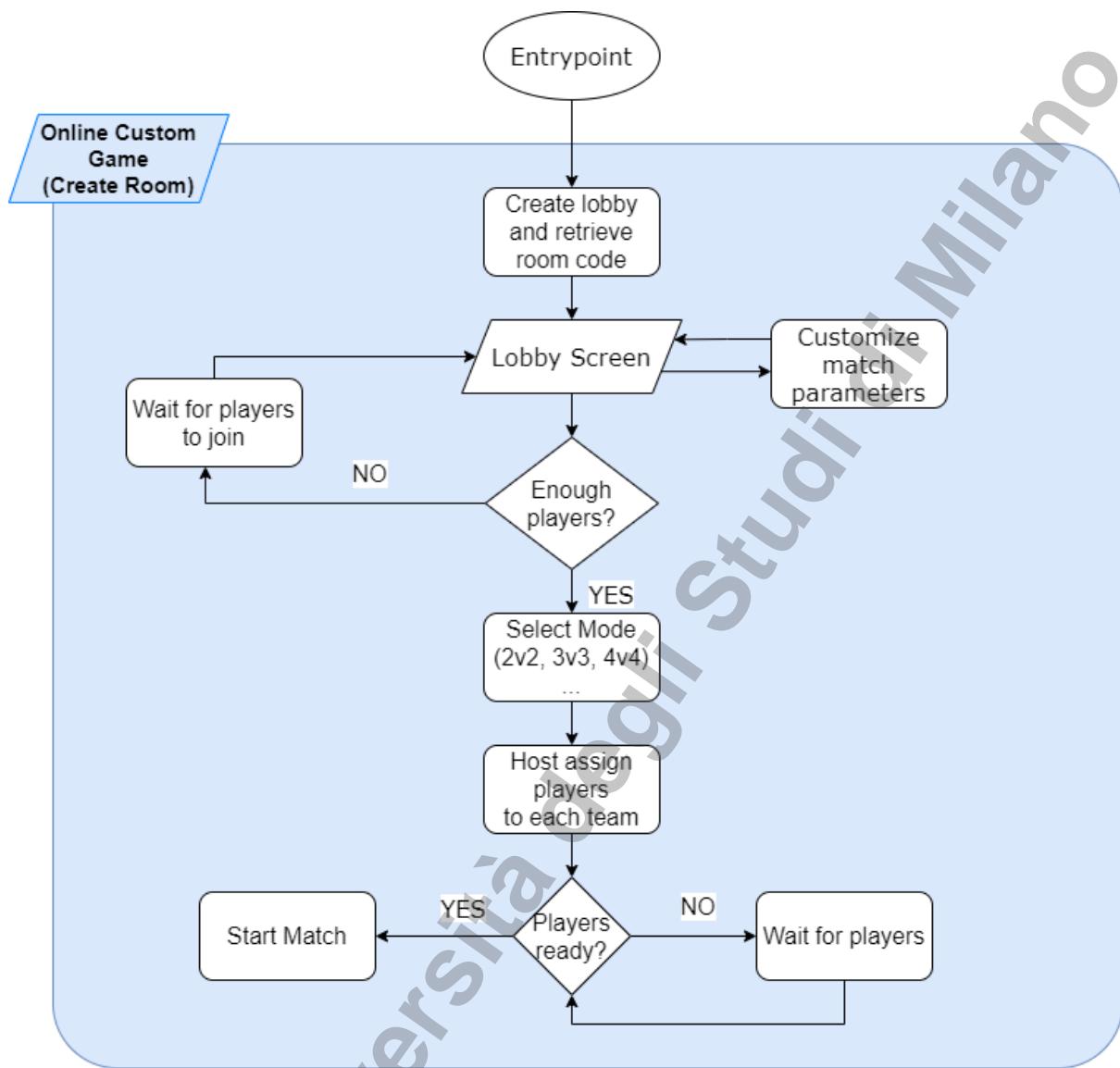


#### Online Game - Create Room

This screen allows the host to pick between different modes (explained in section 5.4) and tweak additional parameters, such as game modifiers (less time, tweaks to rules) or the match privacy (public or friends-only).

The host then assigns players to each team.

When every player confirms that they are ready to play, the match begins.

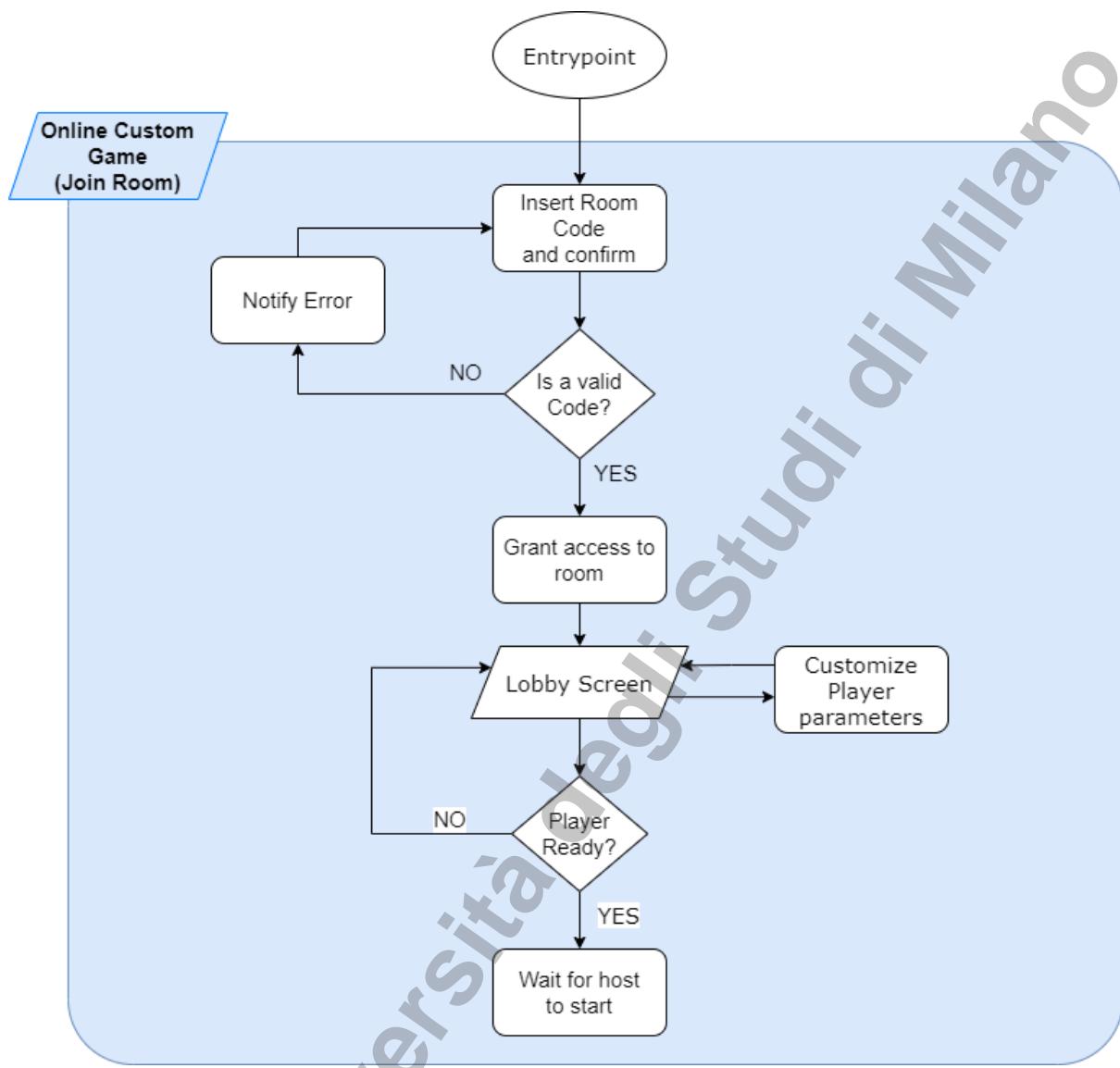


### Online Game - Join Room

In this screen the player has to input the code of the room they want to join. If the code is not valid, the player is notified and can input another one. Once in the room, the lobby screen is shown and the player can customize their character. When the player is ready, they can select the "Ready" option and the match will start as soon as everyone else is ready.

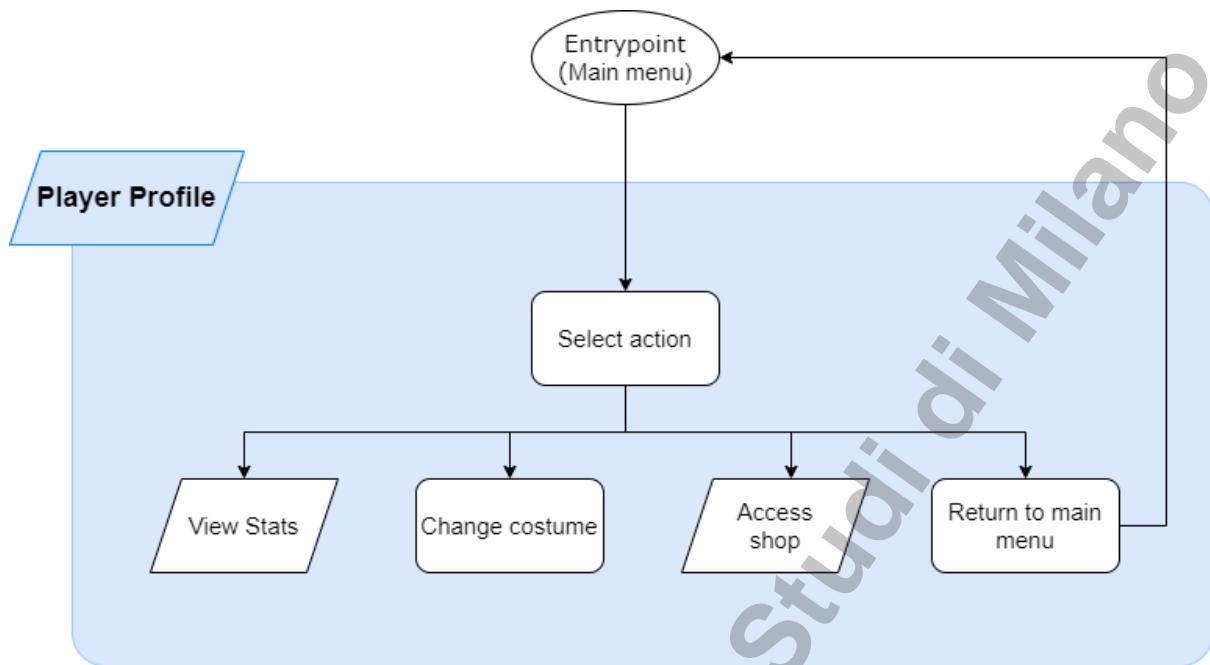
### Online Game - Matchmaking

If the player decides to queue with the matchmaking, they see a loading screen and when a match is found the lobby screen is loaded. When every player is ready the match starts. Lobby size can vary depending on the number of available players found in a time interval.



### Player Profile

In this screen the player can change their appearance by switching owned costumes, buy a new one by opening the shop screen, or check out their stats. In the stats screen, players can see a breakdown of the time they've played, values about actions performed in-game (e.g.: times they have used a gadget, total wins, total currency collected...) and unlocked and unlockable achievements.



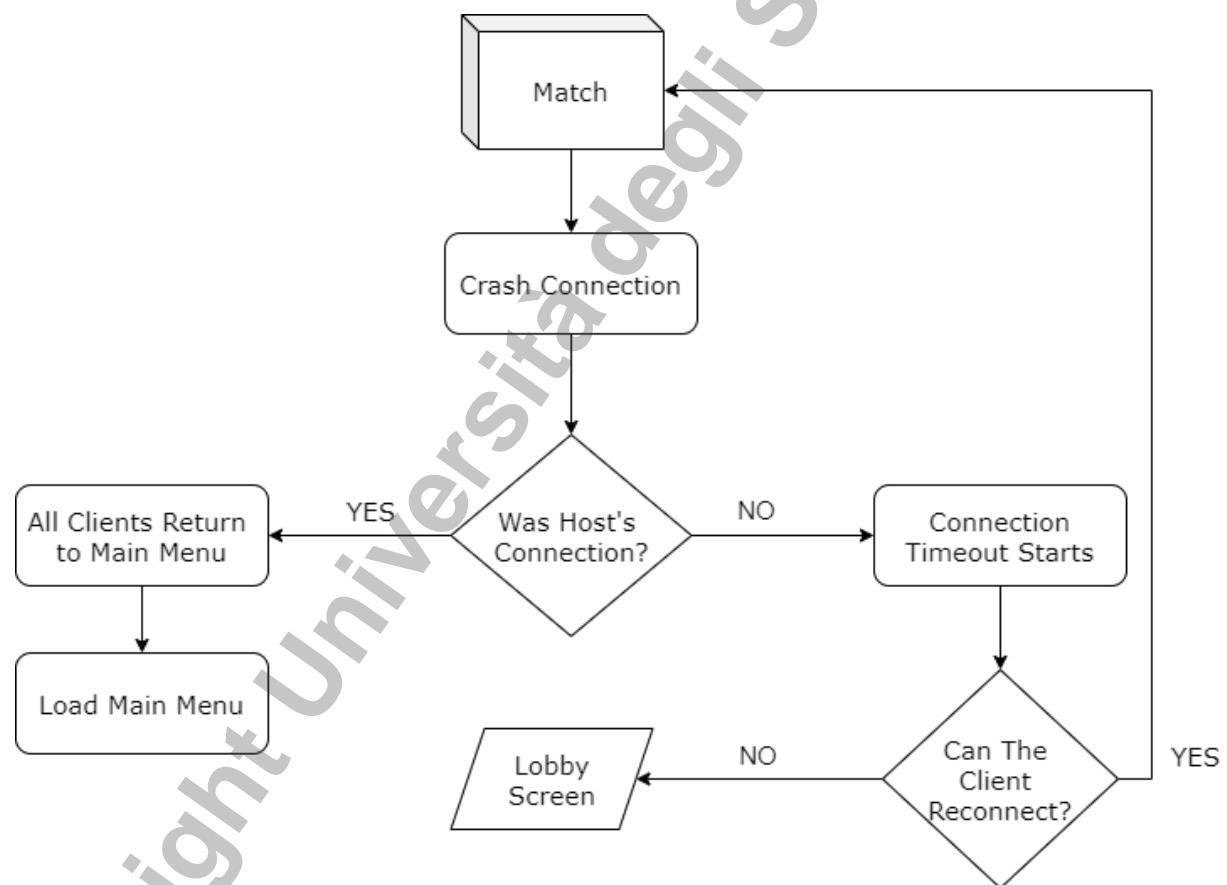
## Handling Disconnections

If a player disconnects during a match (power outage, Internet connection interrupted, OS freeze...), meaning that the server hasn't received a player input for 10s, a count-down starts and the game stops for everyone.

If that player is able to reconnect in that period of time (which lasts 15-30s, so that the other players don't get too frustrated or bored) the match resumes, with no penalties for the players. This is useful to account for unstable internet connections.

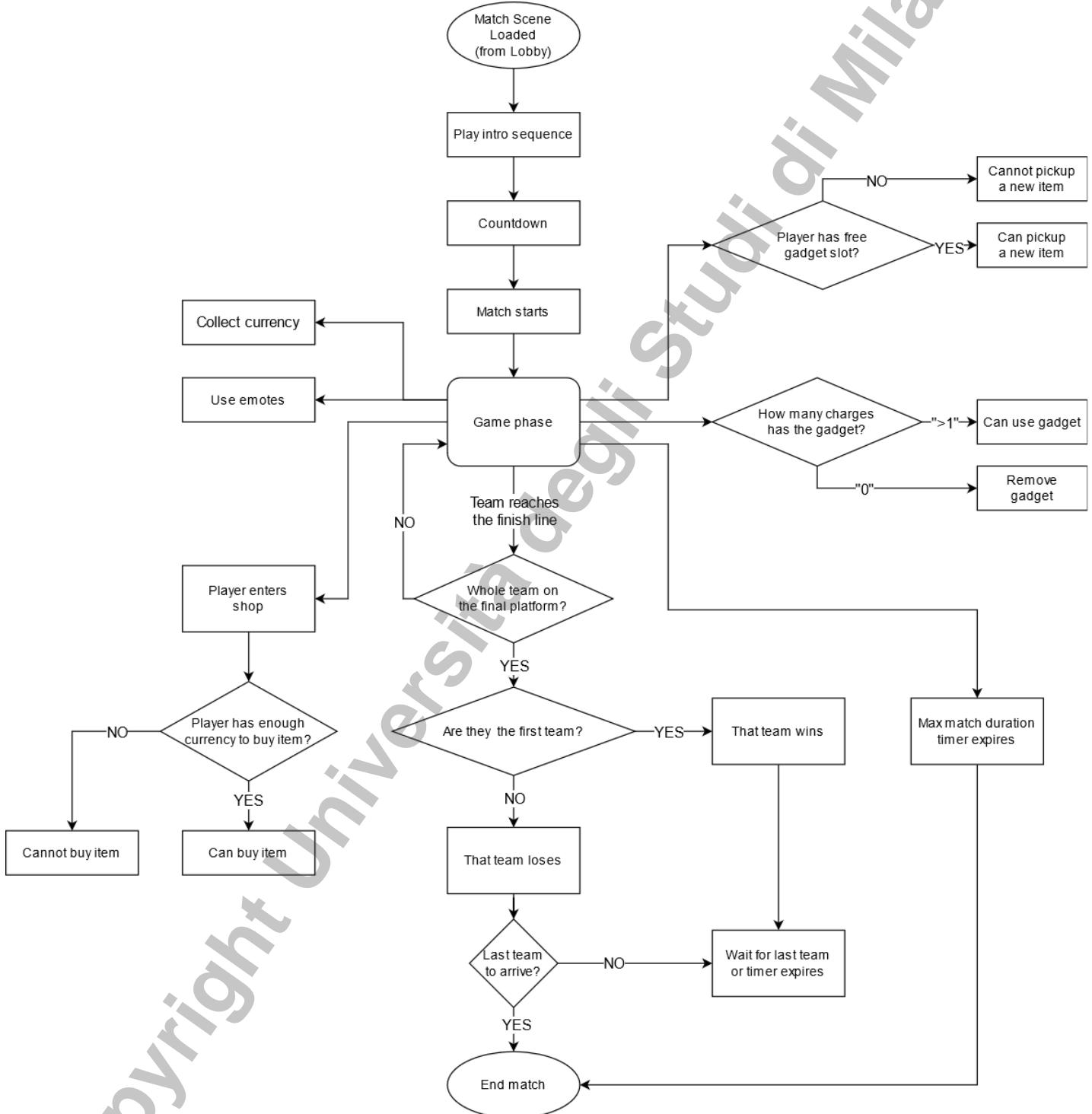
If that player is not able to reconnect, the match ends and the team closest to the finish line wins.

In case the match mode is a custom lobby, and the host is one of the players, should the host crash the match is interrupted and all players return to the main menu.



## Match flow

The following flowchart illustrates the most important interactions of players within a match, as well as the possible match endings.



## 6. Game characters

### 6.1. Character design

Characters have a coherent, minimal cartoonish style: solid colors and simple geometric patterns are preferred to high-quality and detailed textures. Clothing might have more vibrant/neon colors to give a more futuristic look.

For player's characters, the character's general appearance can be customized by choosing between a range of parametrized options (different genders, skin color), while their clothing is chosen depending on the selected costume.

Costumes provide a new unique geometry to the player model, but the overall color is dependent on the team's assigned one.

Characters have a bounding box of 1-by-2 (width-by-height) units. They cannot crouch, therefore maps are designed to accommodate their height.

Characters are not fully voiced, they instead talk gibberish, in a similar fashion to *Fall Guys* and *Animal Crossing*, to partially cut costs, and because we would actually need a decent variety in voice lines to not bore the player after the third match.

### 6.2. Types

#### 6.2.1. PCs

The Mailman: the character the player controls, can be customizable as specified before. They always have a backpack, regardless of the costume. The color of the clothes (different shades for the same team, different color for different teams) is the primary visual clue to identify a player's character.



The team color reference is the following:

TEAM 1: #F509C2  
TEAM 2: #3B98F5  
TEAM 3: #F5A622  
TEAM 4: #56F52F

They have different animations for walking, running, jumping, climbing, using gadgets, falling and idling. They play some noise/"voice lines" when falling, hitting the ground, jumping, or using gadgets.

### 6.2.2. NPCs

- The Merchant: is the NPC present in shops (one by each side of the map, can slightly vary in appearance but the uniform they wear is always the same). They should have a unique silhouette and unique animation and voice lines to welcome the players once they arrive at the shop. They react to players purchasing gadgets on sale, depending if the player has enough currency to buy a certain gadget, as well as players leaving or entering the shop area. They are situated in a different layer from the players, specifically behind a counter. They follow the player closest to a gadget on sale, while they are inside the shop. Their look should be odd and capture the player's interest.

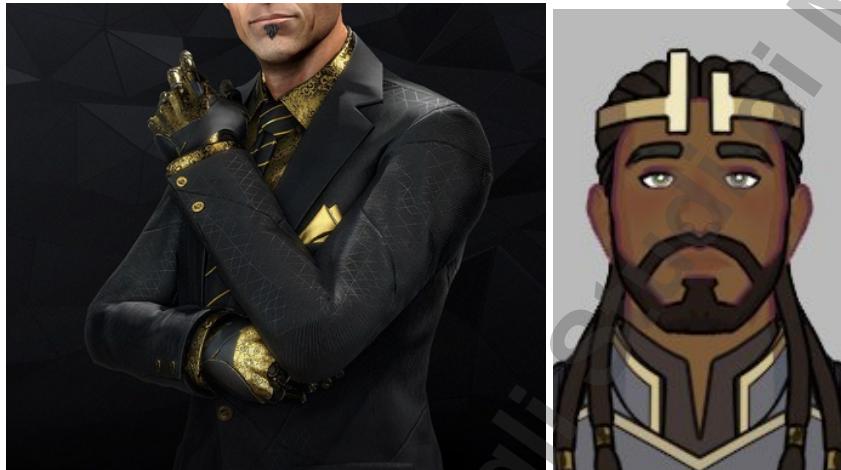


Sources: *Crypt of the Necrodancer*; Mikael Noguchi

- The Prince: is the NPC at the top of the building that players have to reach. They have a unique silhouette and animations. Once a team reaches the finish line, a scripted sequence starts in which players' characters move towards the prince, and give him the letter. The prince has a voiceline of surprise

and then reads the letter, then plays a surprised and excited animation.

His clothing style could be a hybrid of classic elements, such as a crown, with a minimalistic touch, and gold decorated clothes, with geometric patterns. Vibrant colors are recommended.



Sources: *Deus Ex: Mankind Divided* (Square Enix); *The Dragon Prince* (Netflix)

## 7. Story

### 7.1. Premise

In a futuristic Capital City, the Prince is always at the center of the attention, and still a bachelor: every noble family would like to have their heir becoming part of the Royal Dynasty, but in order to do that, they first need to court him, and the Prince is submerged daily by many love messages and gifts. But whenever a Blackout occurs, it's a matter of principle for nobles to have their love letters delivered on time: that's when Royal Mailmen come into play.

Each noble family sends their trusted team of Royal Mailmen to deliver gifts to the Prince: these intrepid couriers need to climb the Royal Skyscraper, evade security, traps, and many hazards! But they must be wary: other competitors are literally behind every skyscraper corner!

The first team of Mailmen to deliver a gift to the Prince during the Blackout will surely impress him (and the mailmen will get a raise)!

## 8. The Game World

The game takes place in a futuristic city, in particular on the exterior of the Royal Skyscraper.

The city grows in height, with incredibly tall skyscrapers, the tallest of which is the Royal Skyscraper. To differently characterize the various (vertical) levels the players climb through, we can define different architectural styles and color palettes to code the different levels. It also gives the idea that the city has been built over time in stacked, heterogeneous layers. At the lowest level, where the players start, there should be a more degraded setting: only the poorest live in the lowest levels of the city. The richer one is, the higher they live.

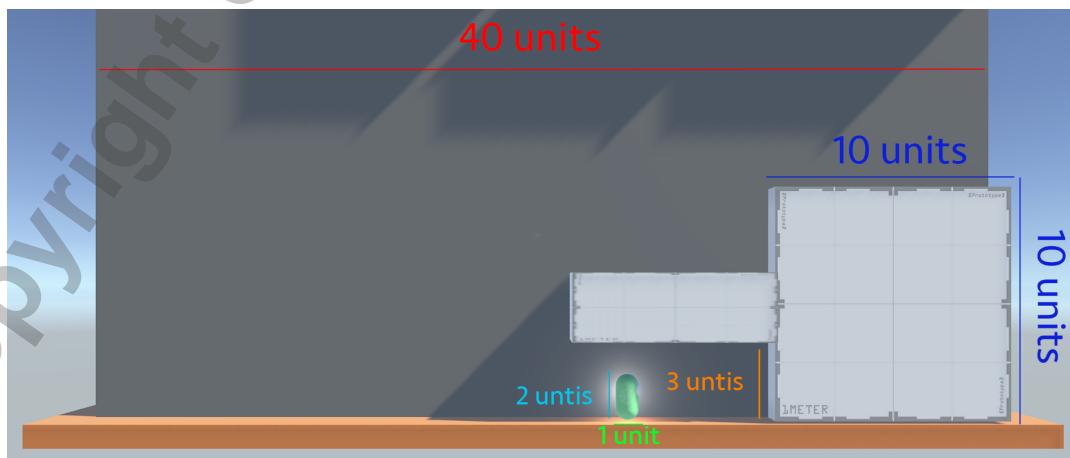
Since we're not aiming for a high-fidelity, photorealistic style, we should play on the colors, light, contrast, and few clear and distinct visual elements. A more minimal style could be actually beneficial to ensure visual clarity.

The Royal Skyscraper itself should have elements that show that it is "Royal", such as gold details, or intricate elements. A possible style could be a fusion between the neo-gothic style and arabic elements.

Players climb and move on balconies, roofs, external emergency stairs, ledges, maintenance platforms, air ducts, pipes, bovidos or similar protruding elements.

### World scale

If we take the player as a base unit of measure, and say that they are 1 unit-wide and 2 units-tall, then the map will be 40 units wide. Each block that constitutes a section of a level is a square of 10-by-10 units. In order to let players have an easier time moving their characters, it's better to have ceilings, and corridors at least 3 units-tall.

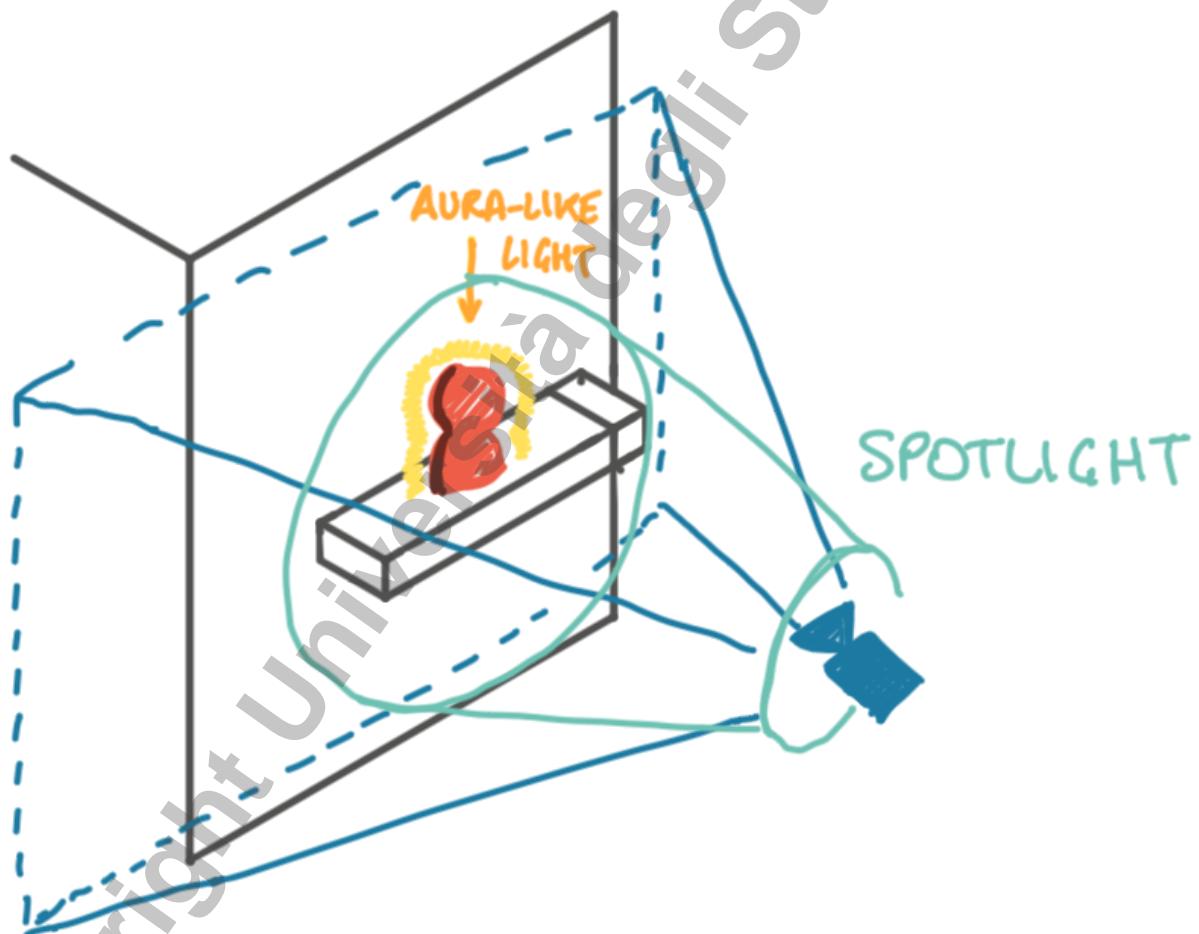


*The player is the green capsule.*

## Light reference

General global lighting is static, and each side of the building is dimly illuminated (a blackout has occurred in the premise, at least for the most prominent illumination systems). Spot lights of different colors can be used to enhance the appearance of certain sections (i.e. light filtering out blurred windows, neo signs).

Players have a spot light attached to improve visibility in darker areas, and the effect is aura-like. Depending on the situation (i.e. the match takes place at night) a spotlight could also be added in the same direction of the camera following the player's character.



## Visual References

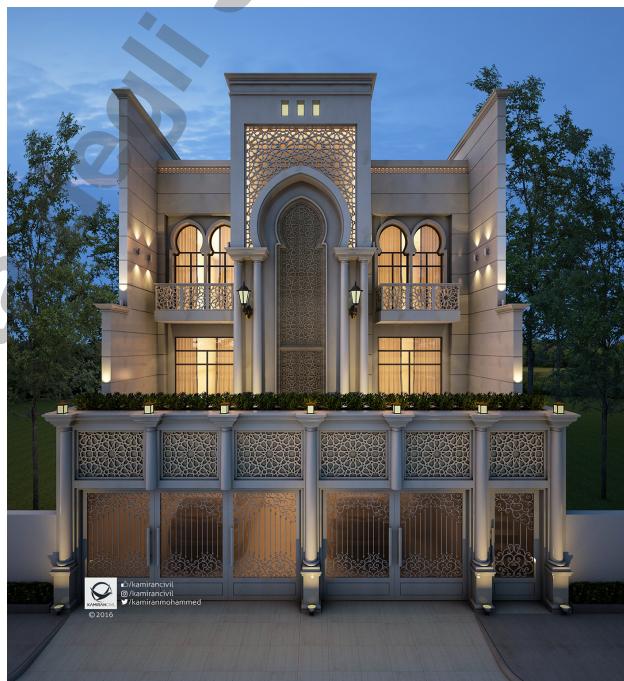
Here's a collection of images that should convey the feeling of certain areas.



*Source: Concept arts from the cancelled "Star Wars 1313" videogame.*

On the left, an example of the lowest level, a damp and dusty sci-fi slum.

On the right, an example of an upper level, but clearly not one for rich people.



On the left, an example of the neo-gothic style, very common in North America, on the right, a render of a modern house with elements inspired by arabic architecture.



Source: *Monument Valley 2* (left), *Tokyo 42* (right)

A minimal, non-photorealistic visual style with vibrant colors and good use of lights is not detrimental to the dramatic elements of the world.

## 9. Media List

- Player
  - 3D Model (with rigging)
    - 3 Base models (masculine, feminine, non-binary)
    - Different textures for the clothes to match the team colors (red, blue, yellow, green)
  - SFX
    - Jumping Sound
    - Climbing Sound
    - Landing Sound (can differ for each material)
    - Walking/Running Sound (can differ for each material)
    - Various “voice lines” for different emotions/actions
      - Winning
      - Losing
      - Using gadget
      - Falling
      - Climbing
      - Hitting the ground
  - Animations
    - Idle
    - Walking
    - Running
    - Jumping
    - Climbing
    - Using Object
    - Falling
    - Emote - Winner
    - Emote - Defeat
- Merchant

- 3D Model (with rigging)
  - 4 slight variations of the model
  - Same color and uniform
- SFX
  - Shop bell sound
  - Purchase succeeds sound
  - Purchase fails sound
  - "Player arrives" voice line
  - "Player leaves" voice line
- Animations
  - Greet players (when they arrive or leave)
  - Idle
  - Purchase animation
- The Prince
  - 3D Model (with rigging)
    - Unique silhouette
  - SFX
    - "Reads letter" voice line
    - "Player arrives" voice line
  - Animations
    - Greet players
    - Surprise
- Gadgets
  - Ladder
    - 3D Model with textures
    - SFX
  - Grappling Hook
    - 3D Model with textures
    - SFX
  - Springboard
    - 3D Model with textures
    - SFX
- Environment
  - Background elements
    - Other skyscrapers
    - Buildings
    - Lights
    - Clouds
    - Skybox
    - Birds
  - Foreground elements
    - Building elements
    - Platforms
      - Balcony
      - Terrace

- Emergency ladder
- Sidewalk
- Landing dock
- AC Units
- Trashcans
- Railings
- Lights
- Background sounds
  - Wind
  - Ambiance sound
  - Traffic noise
- Soundtrack
  - Match
  - Post-game
  - Main menu
  - Shop menu
  - Title screen
  - Trailer
- UI Elements
  - Buttons (Gamepad, PC)
  - Panels
  - In-game elements
    - Gadget Icons
    - Gadget Frame
    - Cooldown Indicator
  - Typeface(s)
- Brand
  - Logo
  - Banners for social media, store pages...
  - Business card
  - Website
- Store page assets
  - Logo
  - Video Reel
  - Screenshots
  - Animated Videos/GIFs to showcase core mechanics
  - Banners for sections
  - Poster (for promotional events)

## Format requirements

Images will be in PNG format:

- Icons will be 512x512 pixels in resolution.
- Textures will be in PNG, with 2048x2048 pixels in resolution.
- Background images will be at least 2048x2048 pixels in resolution, and less than 4092x4092 pixels.

Audio files will have to be in MP3, WAW, OGG, AIFF format with at least 22KHz.

Videos will have to be in MP4, MOV, WEBM format, in 1080p@30fps.

3D models will have to be in FBX, DAE, DXF, and OBJ.

Fonts will have to be in TTF or OTF.

## Sound references

To give a general and rough reference to what kind of music we want to have in our game, here's a short list. We want a light-hearted music, sufficiently frenetic. Synth could be a good instrument to underline the futuristic setting of the game.

Intro/Climb: <https://www.youtube.com/watch?v=ZUWUiAkRx1c>

Climb: <https://filmmusic.io/song/7015-neon-laser-horizon>

Menu: <https://www.youtube.com/watch?v=Mgl0MSCIFYY>

# Prototype

- Most core mechanics are implemented, notably:
  - Movement system
  - Rope between players (with some rough edge-case)
  - Camera system
  - Win conditions and most of the ruleset will be implemented
- The Shop mechanic is **not** implemented!
- All game modes are implemented (2v2, 3v3, 4v4, 2v2v2, 2v2v2v2), but the focus is mostly on 2v2.
- The map could be randomly generated, but for demonstration purposes, we have made a map specifically for playtesting.
- **Partial** animations are implemented
- Scripted animated sequences (intro sequence, win sequence) will likely **not** be implemented
- No scoring system
- No achievements
- No stats tracking
- Gadgets
  - Limited selection
    - Ladder
    - Grappling hook
    - Springboard
    - Glue
  - Found only in boxes
- Menu
  - Limited features, mostly to showcase screens.
  - No shop (for cosmetic items)
  - Customization options aren't available
- Network
  - No online matchmaking
  - No online lobby system
  - Direct IP connection only
  - No local multiplayer
- **Graphics assets will be placeholders**
- Music and sound will be placeholders
- Options and UI of a lobby differ from specifications, to simplify the playtesting experience