



Team Composition



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1.Design History

Date	Update	Responsible
31-10-2018	Creation of the document, first sections.	Logronio Gabriel
01-11-2018	Detailed Gameplay.	Logronio Gabriel
02-11-2018	Technical Spec.	Logronio Gabriel
08-11-2018	Detailed target audience and market analysis.	Linguerri Mattia
10-11-2018	Detailed obstacles.	Logronio Gabriel
11-11-2018	Added UI images.	Logronio Gabriel
20-02-2019	Revisioned GDD.	Linguerri Mattia
22-06-2019	Updated GDD to current release.	Linguerri Mattia
24-06-2019	Revisioned GDD.	Linguerri Mattia

2. Vision Statement

Dumb & Drunk is a funny and idiotic party game. You and 3 friends have taken a drop too much and now you are all dead drunk. But there's class tomorrow and you have to get to bed before falling completely wasted.

While built on the classic party game trademarks such as multiplayer, fast pace and colorful graphics, the game adds new features to make it more compiling:

- **Absurd controls-** The players are completely drunk and confused, and the game controls reflect it: they are pretty simple yet really hard to pull off. Each button controls a single player limb independently one from the other, rotate the arm, push things aside, stretch a leg to make a step. Moreover, they change at the beginning of every game and during a game too, making it impossible to train any muscular memory.
- **Funny obstacles-** Plenty of obstacles will slow you down, on purpose or not, making the epic journey back home even harder and never boring. Will you be able to dodge them?
- **Keep an eye on the balance-** the balance bar will warn you if you are about to fall: try to get your balance again tilting your smartphone in the right direction.
- **Unique environments-** Play in different cities, extremely stereotyped and each with their unique environment and obstacles, a mime will try to slow you down in Paris, taxis and hot-dog carts will bother you in New York and more!
- **Cooperate (or not?)-** At the beginning you'll play with a friend to try to collect more keys than the others, but once the first phase ends, you have to fight each other for the only bed, so you don't have to sleep on the hard and cold floor.
- **Artistic view-** Cartoonic style graphic: big heads and short limbs, colorful textures and funny graphic effects take the players in the right mood to have fun, psychedelic and fast paced music with hilarious audio effects will make the game even funnier!

Dumb & Drunk is a funny and hilarious yet frustrating party game that will keep you and your friends glued to the screen, match after match, each with different environments and obstacles!

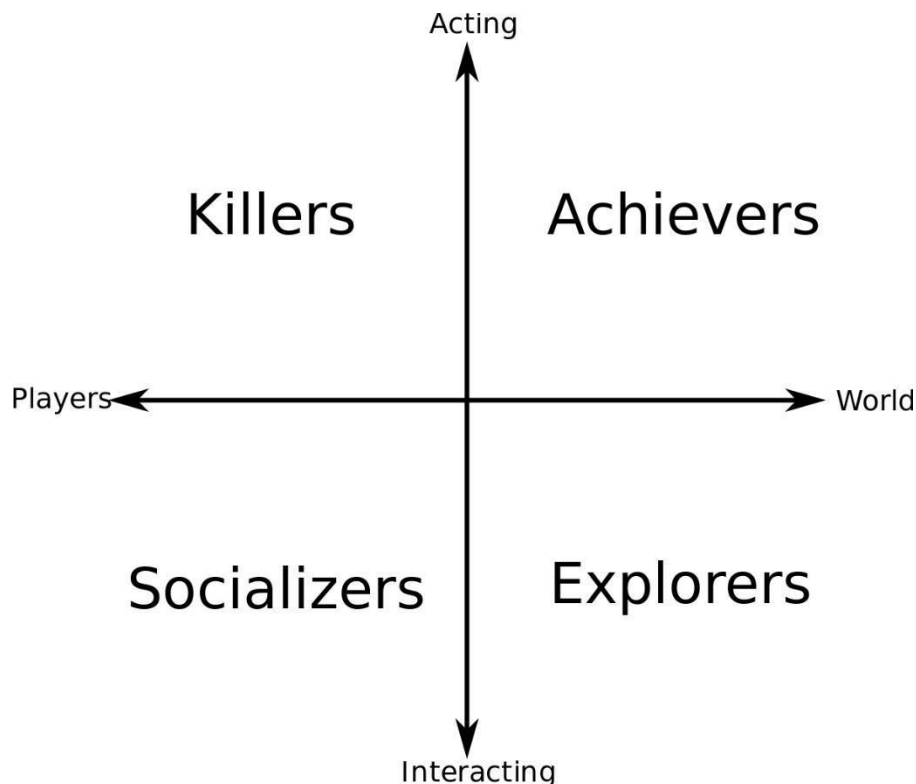
I'm not "drunk"! You are drunkleyf;gà...

3. Audience, Platform and marketing

3.1 Target audience

According to the Bartle taxonomy players can be divided in 4 types:

- Killers
- Achievers
- Socializers
- Explorers



Our game is a party game. Party games' purpose is to be used as an icebreaker in certain situations, facilitate interaction and provide entertainment and recreation. The goal of our game is to make friends play and have fun together, so we can say that a Bartle's type socializer player will enjoy the game more than others.

However Dumb & Drunk is a party game, so the Bartle taxonomy isn't perfect for this type of games, the real entertainment is given by the type of relation of the players playing together, so really every player can enjoy it if it's played with the right mates.

This game does not contain either violence or sexual reference, yet it contains bad language and alcohol making the game not suitable for younger players but instead from young adults onward, but with no distinction between genders.

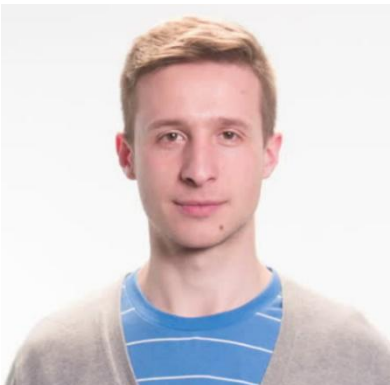
The game is set to release in Europe, North America and Asia. Being a game with alcohol references it might be banned in those countries in which alcohol prohibition is enforced, but because those countries are not the focus areas of our market it shouldn't cause major sale loss.

3.1.1 Personas



Name: Trevor
Age: 30
Location: New York City, US
Job: office worker

He doesn't like videogames very much, he prefers to stay outside in his free time playing basketball with his friends. He plays videogames sometimes with his friends when they just want to relax and have fun together.



Name: Christoph
Age: 22
Location: Frankfurt, Germany
Job: student

He loves videogames and he spend a lot of his free time on them, playing with his friends or alone. When he meets his friends in the evening they like to play party games together for having fun one of another. He also plays with his little brother, trying to make him enjoy videogames too.

3.2 Platform

The game is set to release on PS4 (using PlayLink system) and PC. The game is controlled using smartphones, only Android above 4.1 at the current state. A LAN is needed in order to connect smartphones to the console/PC.

System requirements: on PC the game should run smoothly even on low end systems if well optimized. The basic requirements for running a Unity game on desktop are:

OS: Windows 7 SP1+, macOS 10.11+, Ubuntu 12.04+, SteamOS+.

CPU: SSE2 instruction set support.

Graphics card with DX10 (shader model 4.0) capabilities.

4 Android smartphones with OS version above 4.1.

3.3 Market analysis

Top performers: analyzing the “party game” in the home consoles and PCs market the series with the most sales are:

Wii series (201,8 million) with highest sales for Wii Sports (rd: Dec, 2006, sales: 115.12 million);

Mario Party (39,6 million) with highest sales for Mario Party 8 (rd: May 2007, sales: 8,3 million);

Just dance (59 million) with highest sales for Just Dance 3 (rd: Oct, 2011, sales: 10,4 million);

The age target of our game is much more restricted as seen before, and as many children and pre-teens are not suitable for the game the sales are much lower.

As saw in the release dates of the highest sailing games the party games genre market is currently pretty low, mostly for the lack of new game ideas and uniqueness, that's the reason we target this game genre hoping to bring a new game that can liven the market.

All these games have been released solely on consoles, therefore the PC market has not been explored yet.

PlayLink for PS4 is a system that is expanding quite fast, making possible to play on console without using controllers. Very nice games have already been released for this system.

Features comparison: while maintaining the simple controls typical of the genre, the hard combination and coordination of them make it different from the rest of the games. The target audience is also really different, not targeting children and pre-teens but more young adults and adults.

Sales expectations: 10.000/15.000 copies.

3.4 Competitors

Wii series



The Wii series is a series of exergaming simulation games for the Wii and Wii U video game consoles published by Nintendo. The series features control schemes that simulate real-life activities with various combinations of the Wii Remote, the Wii U GamePad, and the Wii Balance Board.

Mario Party series



Mario Party is a party video game series featuring characters from the Mario franchise in which up to four local players or computer-controlled characters compete in a board game interspersed with minigames. The series is known for its party game elements, including the often unpredictable multiplayer modes that allow play with up to four, and sometimes eight, human players or CPUs.

Just Dance series



Just Dance is a rhythm game series developed and published by Ubisoft. It's a motion -based dancing game for multiple players, with each game featuring a collection of songs each with their own dance choreographies. During each song, players mirror a dance performed by actors on the screen, following commands that appear on the screen, and are awarded for their accuracy.

4. Legal Analysis

The game title is original and therefore free from copyrights, however the title can be shortened into "D&D" which is copyrighted.

The assets used for the characters are original and made by the graphic designer of the team, while some could be made using Fuse (Mixamo's version from Steam) so they are all free from copyright. The music and sounds are made by the sound designer of the team, so both are completely original.

We used the following external software:

- Unity Personal 2018.2.14f: the project is made for a university course and the group doesn't currently make more than 100k dollars in annual gross revenues, so Unity Plus/Pro are not needed.
- Blender, an open source software released under the GNU General Public License
- Wwise Starter: the production budget is less than 150k dollars and the sound assets are less in number than 500
- Mixamo's Fuse: from August 22nd, 2017 Mixamo's Fuse is no longer supported as acquired by Adobe (Adobe Fuse CC) but the Adobe's version lacks many contents that are in the Mixamo's version.

5. Gameplay

5.1 Core Gameplay

The game is a 4 players physics-based couch coop-and-PvP party game controlled using smartphones about 4 friends who must get back home but are too drunk to move properly and so will be hard to control.

To spice the things up the square and the garden are full of obstacles that will hinder and slow them down.

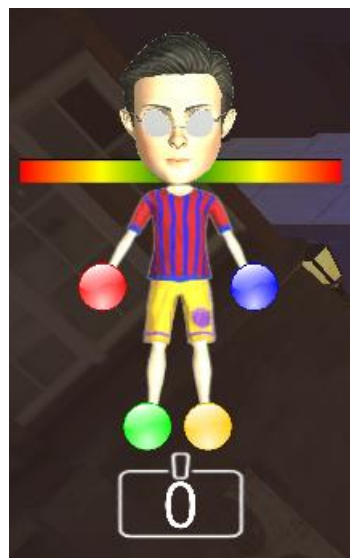
In the first phase the players are divided in 2 teams and they need to collect more keys than the other team in one minute. In the second phase, the two winner players will face each other in a speed-run through the garden, the first of them who will reach the front door will be the winner. During this phase, the other two players will try to hit them shooting beer bottles and making them fall. A match is divided in some rounds, every player gains a point for every phase he wins, so every round he can gain from 0 to 2 points. The first player to reach 10 points, is the winner of the match. When a player falls, a mini-game starts on the smartphone. Minigames consist in tapping or swiping on the screen or tilting the phone.

There are 3 different difficulties in the game, every player can choose the one he prefers:

- Easy: no change of the buttons
- Medium: button change when the player falls
- Hard: button and axis change when the player falls

UI

The player state is shown in the UI. The players have to pay attention to it in order not to fall.



Balance bar

A horizontal bar placed over the head of each player shows their current balance. The pointer (head) on the bar starts in the middle and the player has to try to keep it away from the outer parts of the bar: if the pointer reaches either the left or the right red zone the player will fall, losing time while trying to get back up. The bar swings randomly right or left simulating the unstable balance of a drunk person, moreover moving the player towards a direction or tilt the phone will also push the pointer towards that side, i.e. taking a step with the right foot will move the balance towards the opposite side.

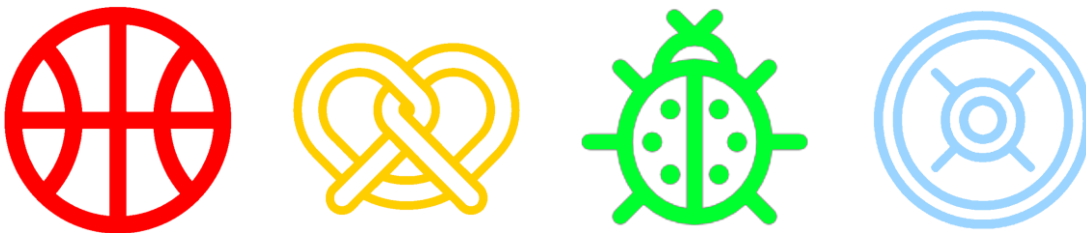
Player's body

The player's body in the UI shows which button needs to be pressed to perform a specific action (moving a specific limb). In some difficulties, when the player falls, the buttons are randomly changed, so the player must pay attention to it.

Player's score

The player's score in the match is visible under the player's body.

Sights



In the second phase the players who lost the first phase have to shoot beer bottles to the other two players in order to help one of them to win. They need to control the "sight" titling the phone and press the button on the screen to shoot.

Controls

The controls are semi-randomly selected at the beginning of each match making it useless to try to train a muscle memory.

4 buttons control:

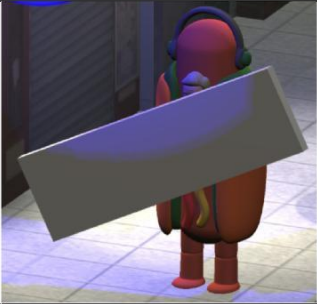
- Right arm
- Left arm
- Right leg
- Left leg



An analog controller is used to give the direction of the movement to the player. Tilting the phone, swiping and tapping on the screen are used to control the player and for the minigames.

Obstacles

Along the way home the players will meet various NPC (depending on the city where they are) who will try to hinder and slow them down. They are different for each city and can be divided in: stationary, slow moving and fast moving.

New York

Taxi	
	Stationary obstacle
Fire Hydrant	
	Stationary obstacle
Fast food mascot	
	Stationary moving obstacle
Old granny	
	Slow moving obstacle

Drunk Tramp		
		Slow moving obstacle
Hot dog cart and seller		
		Fast obstacle

Paris

Box of baguettes	
[image]	Stationary obstacle
Falling flowerpot	
[image]	Stationary obstacle
Dining people	
[image]	Stationary obstacle
Street artist playing and a couple dancing	
[image]	Slow moving obstacle
Mime	
[image]	Slow moving obstacle
Baguette seller on bike	
[image]	Fast moving obstacle

Pick-ups

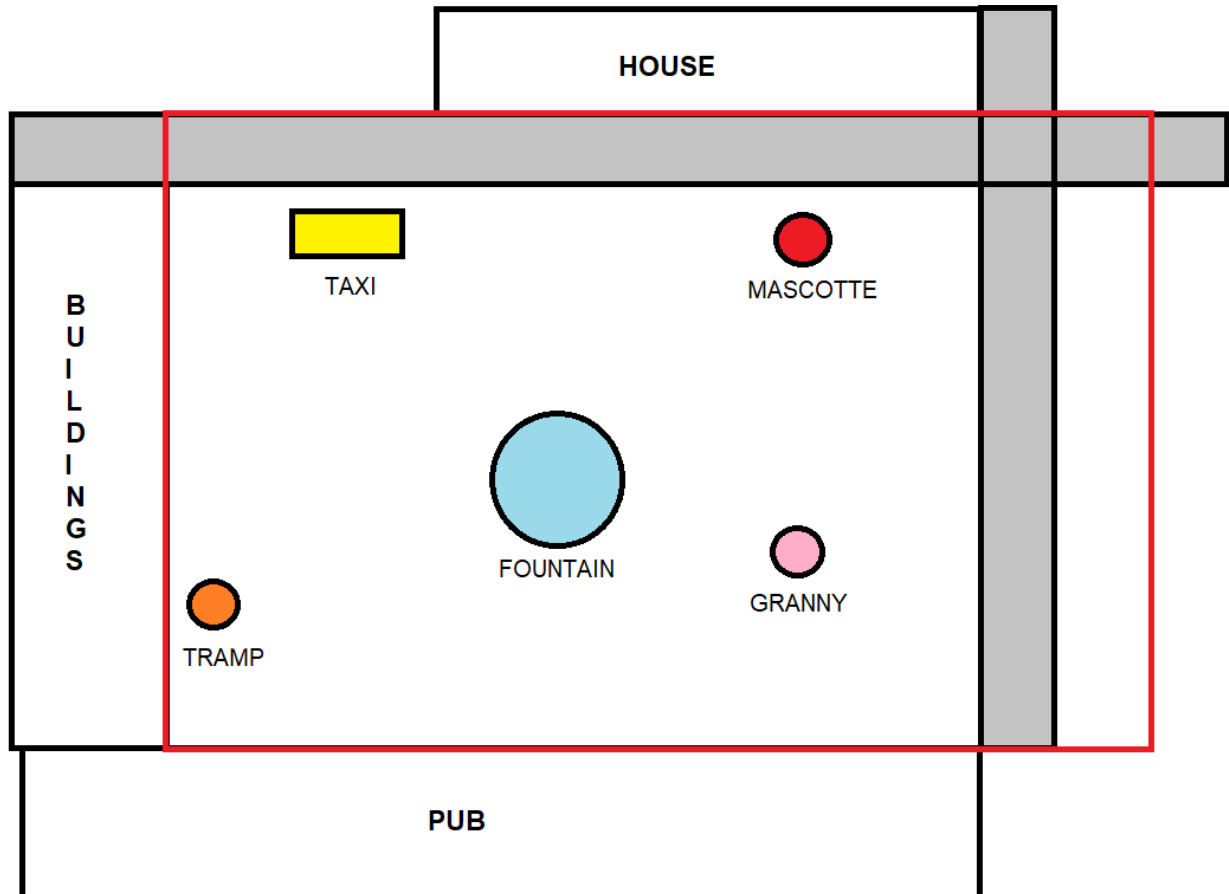
Keys

Keys are randomly spawned in the square. When a player falls, he drops all the keys he has collected until that moment. All the players can pick up the keys dropped.



5.2 Level and Map

The map for the first phase is composed by a square and two streets. On the bottom there's the pub where the players are, and on the top there's the gate of the house the players have to reach. In the center of the square there's a fountain. Obstacles and keys are displaced all over the map. The red rectangle is the area in which the players can walk.



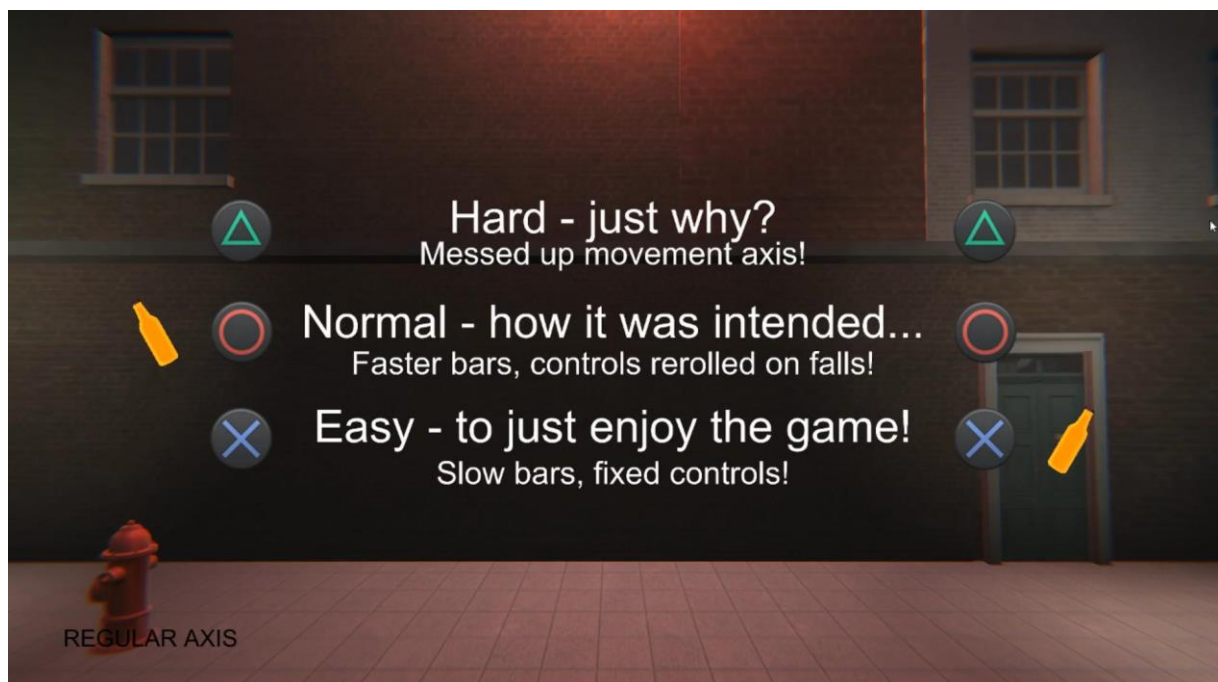
The map for the second phase is the garden of the house. There are trees and bushes that hinders the player, but the main challenge is given by the other two players shooting at them, so the path is straight and quite free from obstacles.

5.3 Screens

Starting screen:



Difficult selection screen:



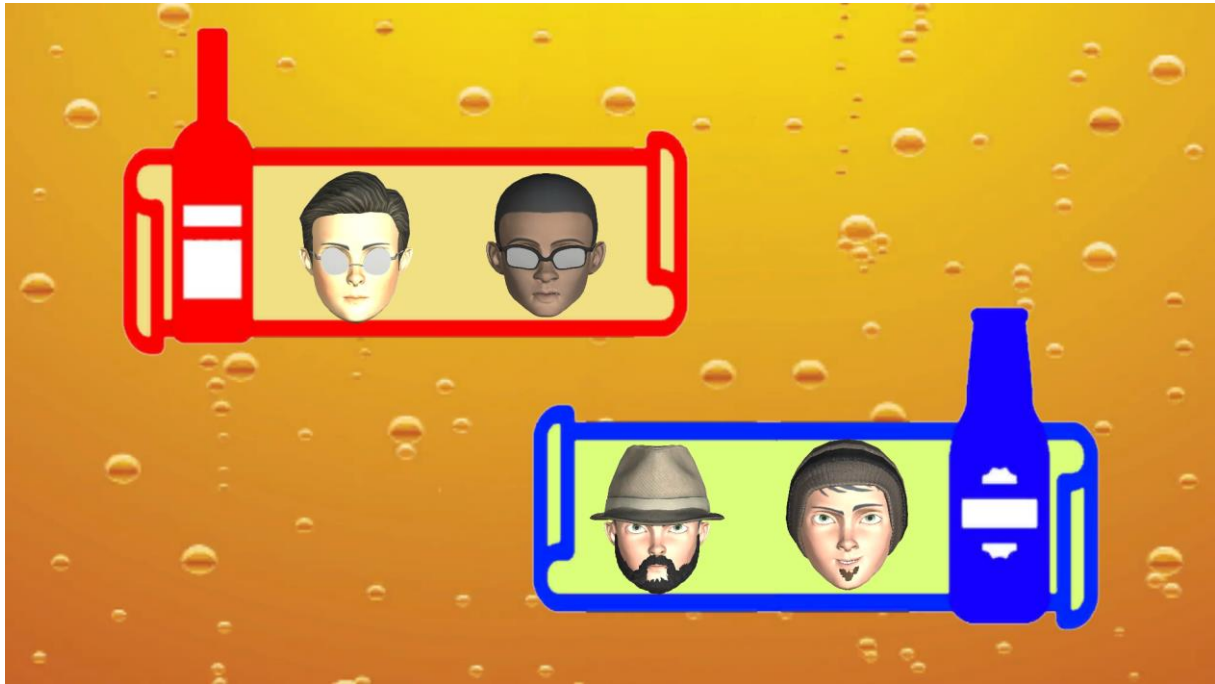
Menu:



Connection screen:



Team selecting screen:



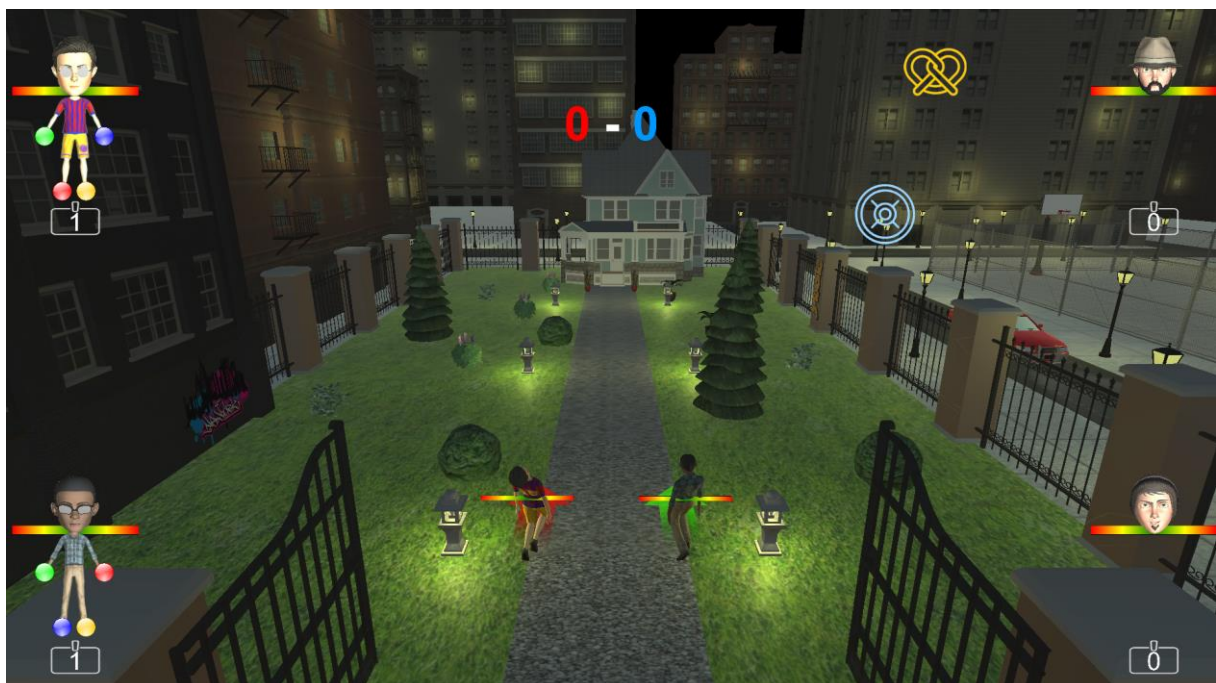
Loading screen:



First phase screen:



Second phase screen:

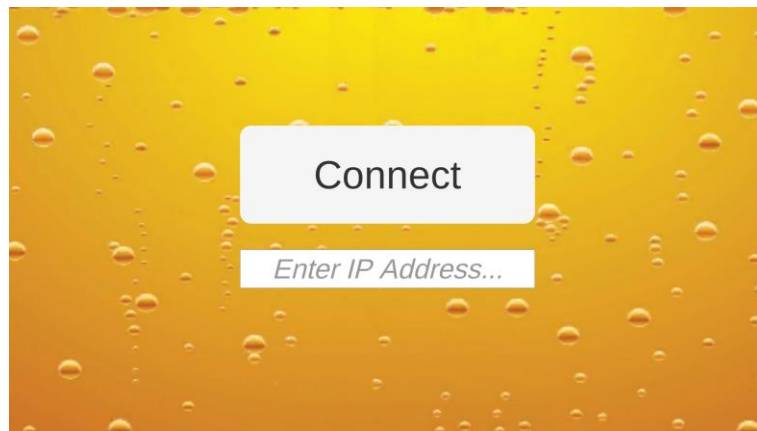


Victory screen:



Smartphone Screens:

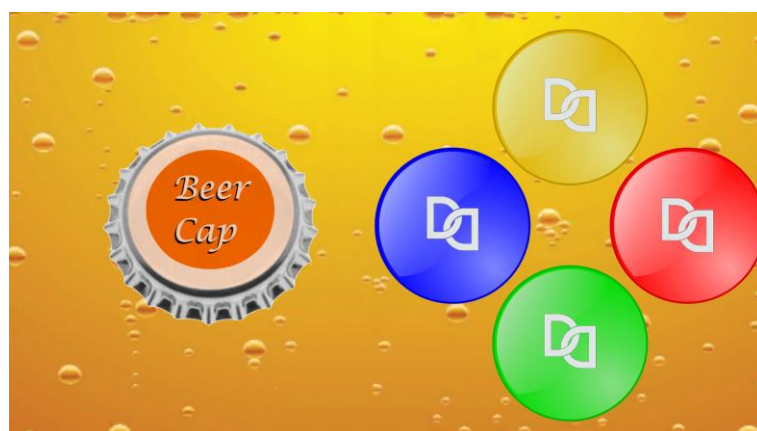
Connection screen:



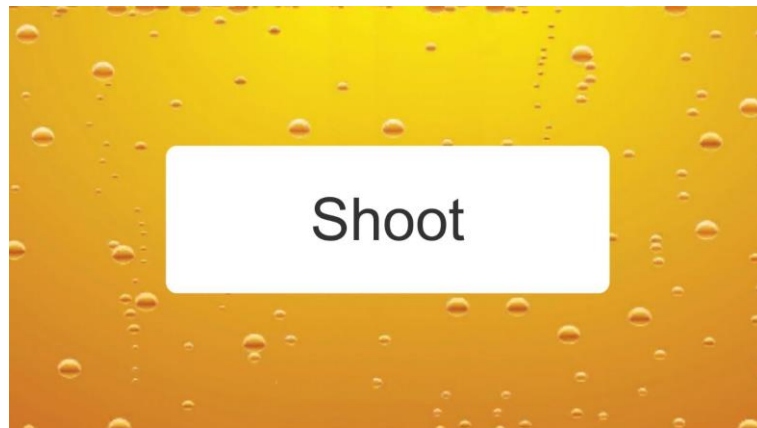
Waiting screen:



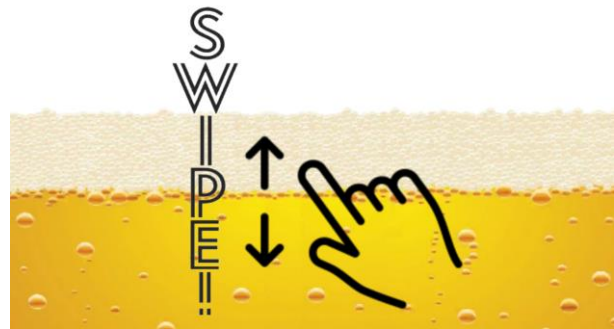
Controller screen:



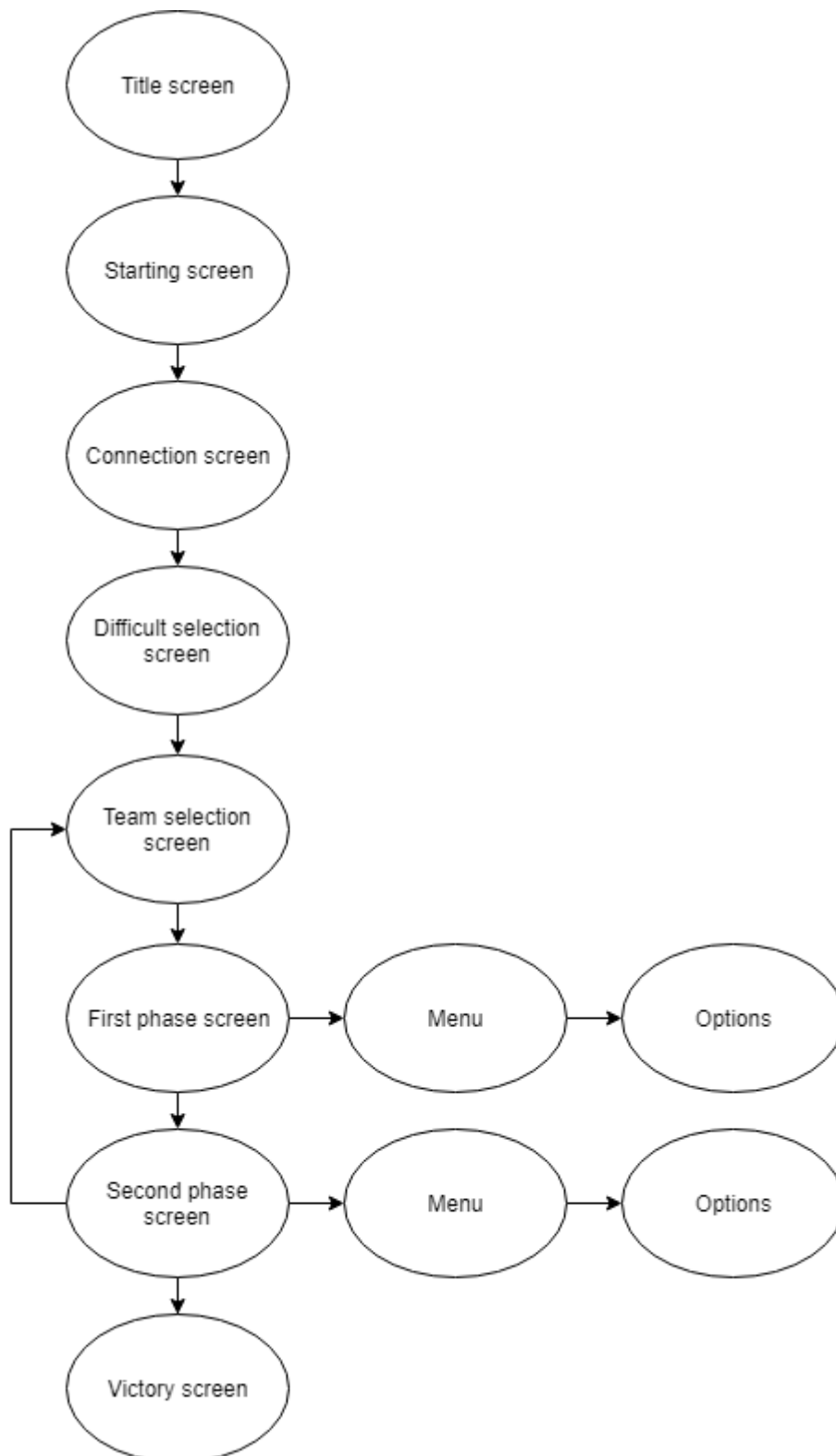
Shooting screen:



Minigame screens:



5.4 Flowchart



6. Game characters

6.1 Players

The players embody four friends (very different from one another) that have just been to the pub and drank too much. They need to return home because the next day they have class at university.

Cheng Yi:



Born in LA from a Chinese family. He's a sporty guy: he practices a lot of sport in his free time and doesn't miss his favorite sport team games. He loves football and basketball and he supports Barcelona and Lakers.

He studies Kinesiology at university. His best friend is Maurice, they moved together in NYC because they're inseparable. No one knows what they talk about, though.

Dennis Huber:



Born in Berlin, Germany. Move do NYC to study journalism. He loves German cuisine: sausages, Sauerkraut and pretzels. He thinks he's the best beer drinker in his friends' group, but he's the one who get drunk first. He's a student at the university and in the spare time he writes articles about German fashion.

Maurice Moore:



Born in LA. His best friend is Cheng, but they're completely different. Maurice is a nerdy person and he loves insects. He studies entomology at university. In his free time Maurice likes to read book about insects, watch documentary about insects and listen podcasts about insects. Sometimes, when he feels really crazy, he read something about other stuff... for example spiders.

Mike Power:



Everyone has a friend who is completely obsessed with the gym. Mike is that friend! He doesn't have time for work or university, he spends all day at the local gym, where everyone knows him and make him feel like a VIP. He was born in NYC from two very estimated teachers. Clearly, he didn't follow his parents path.

6.2 Obstacles

The obstacles can be either people or objects.

The people obstacles are:

New York

Drunk tramp: he thinks to be a war veteran but it's just because of his alcoholic habits. If you ask him, he fought in Korea and Middle-East and on weekends he adds the civil war too.

Old granny: she's not the classic grandma who cooks all day for her grandsons, she's a sporty granny and she does jogging at the night too. Really slow jogging, but still jogging.

Hot dog cart and seller: with so much drunk people around this cart makes big money. What a disgrace to take advantage of these people... yes just ketchup please, no veggies.

Fast food mascot: dressed as an hot dog, he spins his sign attracting people towards the fast food. Let's pretend that the yellow stain between his legs is mayonnaise.

Paris

Dining people: talking, laughing and chewing as loud as possible... Well at least they are not taking pictures of their food.

Street artist playing and a couple dancing: oh so romantic! If only he wasn't doing the floss and he wasn't doing the hype dance...

Mime: he is either well known mime all around the world or he thinks to be a fish that has just been taken out of water. I don't know, I'm not good in charades.

Baguette seller on bike: with his classic beret and mustaches, he brings baguette to the people. No jokes on croissants, he wants to keep his head on his shoulders.

7. Story

The players take the roles of four friends and roommates. After a meeting again after the holidays they decide to go out and have a drink together, and another drink... and another one... they have LOTS of drinks together and now they are dead drunk.

But they remember that classes start the following day and they can't miss it to make a good impression on the professor.

They get out the bar and start walking back home. Luckily home is very near, and they can't get lost. Just put one step in front of the other and they slowly walk their way back home, but suddenly they realize they lost the keys in the square, so they need to find them while all the world seems trying to annoy them.

Gina, the old lady of the flower shop, is jogging slowly in the middle of the square, preventing them from going over her, this will take an eternity! As they decide to cross the road a car passes fast on the road, just few centimeters from them. Lucky for not too long: a cat sees and charges them. The jerk... I mean the cat wants to make them fall at all costs, but a passing dog makes it run away. After all the obstacles two friends reach their home gate before the others, but as they enter they remember that just one of the beds is usable: they rush towards it as the first one to enter the room will get to sleep on the bed, while the other will have to sleep on the floor. Who will arrive first?

Backstory: Cheng, Dennis and Maurice have passed the holidays back in their hometowns and had just comeback right before the start of the semester. All four then decide to go out to celebrate before setting up the rooms, they will later find out that was a huge mistake!

Narrative devices: the story is explained in a short cinematic before the loading screen.

Game world:

The game can be set in various cities all around the world, each of them with their uniqueness in environment and obstacles.

The map is similar in all of them: a square towered by a lot of buildings all like each other and a series of lamps that light the streets. The square is full of obstacles and leads to the main gate of the building where the characters live in, it leads to a small courtyard in which the players must walk for a little before finally arriving at the front door which represents the end of the game.

8. Media list

The game requires 3D Assets for:

4 Players: the model must be divided in different parts, each moving independently.
NPCs obstacles both human (granny, group of students, etc...) and objects (car, boxes, vases, etc...).

Environment: a square with buildings, lamps, trash cans, etc.

The game requires animations for:

NPCs and moving objects, while the main characters will need minimal animations as they will be guided by the players.

The game requires sound effects to enhance the immersion in the game and a background music keeps the player active.

9. Technical spec

The game has been developed using the Unity game engine, because it was already been used by most of the team members and it has been taught during the course lessons.

The sounds database is created with Wwise and integrated into Unity using its own plug-in. The game characters have been created using Mixamo Fuse, modified using Blender to make them more suited to the game style and mood before getting imported into Unity. The game environment and 3D objects are modeled using Blender and imported in Unity.

The game is meant to be run on either PS4 or PC and controlled by Android smartphones to play in multiplayer on the same screen.

The game is for 4 players in couch-coop/PvP mode playing on the same screen, with a 2v2 mode: 2 players in co-op racing against other 2 players, but in the last phase the members of the same team will face each other.

10. Current release and future work

The game we developed is not finished, new versions will be released in the future. In the current situation there's only one city (New York), difficulty and menu are not implemented.

Another improvement we want to develop is a record storing and ranking system, to make the replay value of the game stronger.

Currently it's available only on PC and using Android mobile devices. Our goal is to develop the game for PS4 using PlayLink system and develop the controller for iOS devices too.