

Deep Raved - Final Report

DRATTARI *

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1 Introduction

Deep Raved is intended to be a fast-paced, mini-game based board game. We want to make a party game to give us more flexibility in the game we are going to make. Mini-games allow you to focus on creating short, fun experiences, rather than having to test and strain an initially interesting idea. Putting it all on a board makes the experience all the more compact and controllable.

The name Deep Raved was born from an amalgamation of what we felt best represented the idea of the game we wanted to create. A rave perfectly encapsulates this idea of high energy and chaos.

1.1 Information Sheet

Product Type: Video Game

Genre: Party Game

Style : Action / Puzzle / Turn-Based

Platform: PC, Windows

Engine: Unity 4.1

Number of Players: 1 to 4

Rated: T-M

1.2 Case Study

Deep Raved, when completed, is meant to be fun above all else. What are video games if not interactive entertainment? As former Nintendo of America COO Reggie Fils-Aimé said, "If [the game] isn't fun, why bother?". We want our players to have fun, but we also want them to hate each other during a game.

Our goal is to give players an adrenaline rush through a fast-paced, chaotic game that is not too demanding in terms of brainpower but still fun to play with friends, so it is in our interest to make Deep Raved as polished and interesting as possible.

For us, this project is a great learning opportunity. First of all, it is an opportunity to work as a group, which means an active effort on our part to be coordinated and work smarter towards the completion and quality of the project. Secondly, it allows us to use what we have learnt so far in a concrete environment, namely video game development, to really test our skills and learn new ones.

1.3 Our Team

- **Aymeric Faivre:** Even though the game is in a nightclub he had never put a single foot in a party. The reason ? Constantly sleep deprived and “is too old for that”.
- **Pavitrans Sambath:** The stand-in for our absent mascot. An eccentric focused on making this project work.
- **Dorian Wolff:** Also known as the bad joke machine, has a creative spirit and keeps on polishing his programming skills. However, he can be quite short sighted.
- **Christophe de Pontac:** Needs to go to sleep rather than write this sentence.

2 Project Description

2.1 State of the art

The first party-games were not really party-games per se. In the early days of home video game consoles, sports games and what are commonly called family games took the place of modern party games, with a similar interest in multiplayer and fun for all. The Games series and Track and Field series, which came out in the early to mid 1980s, mainly on the NES (Nintendo Entertainment System), were probably the most famous early examples of the genre. It was a simple but revolutionary game at the time: a collection of sports-based mini-games that could be played by several people. If you’re looking for the first party-game, there aren’t many choices one can make, it’s either an adaptation of a TV game show or simply Mario Party.

The most popular games in the genre are staples of what a party-game should be, such as Mario Party, Wii Sports and the Jackbox Party Packs. All of these games have an indirect effect on our project for one obvious reason: they have the soul of a board game. The Mario Party series is the most popular of the two, where Nintendo used its famous characters to draw attention to this simple but effective virtual board game. They really revolutionised the concept of board games in the way they implemented the board. While the mini-games are the core of the game, they are not entirely necessary to win the game, allowing anyone to play it, as it requires no skill level. There are however some drawbacks to this formula, for example the mini-games and the game in general can easily become slow if they stagnate.

Wii Sports is another famous gem from Nintendo, intended as a family game that exploits some capacities of the new Wii remote, it still is a widely popular party game. Since the game is a collection of sports related games, it still attracts a lot of people without having to be extremely over the top. Though popular, Wii sports isn't perfect, there is no dedicated mode to play all the games and the reliance on motion controls can make the experience somewhat uncomfortable. The Jackbox Party Packs are way more recent than the other examples, their popularity being strongly influenced by streaming culture. Jackbox Party Packs are ensembles of mini-games that heavily rely on the players' ability to entertain the others, most games being text-based and asking the players to actively write something or choose the best line in the given game. These Packs constitute virtual board games on their own, it's not surprising to see how popular they are. The problem with this reliance on language and the player is that it limits the scope of potential players. For one the games are mostly exclusively in English because certain references and puns wouldn't apply otherwise. Secondly the players can simply be at fault for not making the game interesting enough, if you're not funny the game will quickly become stale.

All of these are great inspirations for what this project should become.

2.2 Synopsis

Deep Raved is a 2D party game, similar to Mario Party.

The main characters enter a rave organised by a certain Quetzalcoatlus Tardatus, aka **Drattardé**. What they don't know is that the rave takes place in a seemingly labyrinth-like complex and that they are trapped there at the mercy of Drattardé and his strange games. They will have to play these games and gather what they can to find a way out of this place, even if it means fighting each other.

In Deep Raved the players advance on a board with different tile effects. From time to time they will land on a tile that will launch a mini-game, a bonus, a shop, or even a curse if they are unlucky. As they move through the mini-games and the board, they will earn a currency that will allow them to obtain equipment and talents. If they are lucky or good at the mini-games, they can also get quality equipment for free. After a certain number of rounds, players will find themselves in an arena where they have to use their equipment to fight a boss.

3 Gameplay

3.1 Before Playing

On a split screen, the host¹ chooses the number of players who will play² and the duration of the game by defining the number of rounds. As the game can only be played with 4 people, if the host chooses a number of players lower than 4, the remaining places will be occupied by bots. During this time, the other players will not be able to interact with the menu.

Next, all players have a personal menu where they can choose their unique colour and class which determines their basic equipment and unique skill. When they are ready, each player must click the launch button to join a waiting room, and when all players are ready, the game launches.

3.2 Initialisation

3.2.1 Board

First of all, the Bonus tiles are placed. These are the boxes that helps you during the game. Next, the Shop tile is placed randomly on a Bonus tile, the Bonus tile being the one that allows you to buy skills and weapons. Cursed tiles are then placed on the remaining squares, as well as Event tiles.

3.2.2 Players

The players are placed on the starting square which is off the board. They roll a die and the player with the lowest value starts. If there is a tie, the dice are rolled again until one of them has a lower value.

¹The player who created the game

²Between 1 and 4

3.3 In-game

3.3.1 King Pong

- Number of players : 1 vs 1 / 1 vs 3 / 1 vs 1 vs 1 vs 1

- Goal: Place the ball on the enemy's side.

Each time the ball hits a paddle, it gains considerable speed. The winner is the one with the most points after the time limit. Additional round for one point if necessary or best of three.

- What is done:

A game of Pong is playable by two players on one device. A point system has been implemented and is kept tallied during the game, though no ingame UI is displayed yet. Speed and size of every element is adjustable if need be.

- What is ongoing:

Debugging of the acceleration factor, currently unplayable if enabled. Further work on AI and multiplayer. Enhancing the visual aesthetic to better.

3.3.2 Focus Or Else - 007

- Number of players : 1 vs 1 / 2 vs 2

- Goal

Bring the enemy's HP down to 0. Each Player has X lives and can choose to Charge, Defend and Attack. After each choice, the previous choice will only be available for a short time.

- Charge makes the next Attack stronger, but leaves the player vulnerable. Can be stacked.
- Attack deals damage according to the current Charge.
- Defend makes the player invulnerable for a short time but cannot Attack.

If at the end of the game nobody is already dead, the player with most HP wins³.

- What is done :

The turn-based combat is implemented with some minor problems such as the ability to do multiple actions during one turn.

- For the UI :

Attack button and defense button are working but the Load button is not working. A dialogue box telling the player which turn it is, if the player attack was successful or not and what the opponent is doing.

³tie breaker if necessary

- For the HUD :
The HUD is working, inside there is the name of the player and its health bar that reduces each time the player takes damage.
- What will be done for the next defense :
The game will be fully working without any minor problem and the AI will be created.

3.3.3 Fighting your Demon - Spam the line

- Number of players : vs all
- Goal:
A wave of enemies stands between the player and the finish line. To defeat an enemy, one must press the button indicated above it. For instance, if a 'K' is displayed above an enemy, pressing the letter 'K' on your keyboard would kill that enemy. This game will test your reflexes and attention.
- What progress has been made for Spam the Line?
Last defense, we managed to gather all the sprites and gameObjects needed to make a first working version of the game. Today, player movements have been updated. The player can move anywhere on the screen, whereas before, it could only move from top to bottom. Enemies are now perfectly well spawned on the screen. They are now set to constantly follow the player. Besides, there are now two different types of enemies, namely BigEnemy and SmallEnemy. Both of them inherit from the same data class, but have different speed and size. For the player to kill an enemy, it has to press the key displayed above the enemy. The tricky part is that the keys to kill enemies are updating all the time.
- What needs to be done for the next defense?
The end screen is missing, and a few minor issues need to be fixed. I am planning to build an AI to spawn the enemies in a more clever way

3.3.4 Spawn Colors

- Number of players : 1 vs 1 vs 1 vs 1
- Goal:
The first player chooses a colour which is represented either by the colour or the letter. The next player must complete the initial line before extending it. If a player makes a mistake, they lose.
- What is done:
A full solo game is playable. The player can choose a color to add to the required sequence when they reach the end of the list, otherwise the

player needs to click on the correct color in the given turn of the sequence. It is possible to enable a full loss that resets the current sequence if the input is wrong. Basic sounds, visuals and animations have been added, in particular an animation to show if a glass has been clicked and a sound if the correct element of the sequence has been clicked.

- What needs to be done:

Further work on multiplayer. Additional visual and sound cues for the better understanding of the gameplay and actions. Further work on current sprites.

3.3.5 Anarchy Road

- Number of players : vs all

- Goal:

Each player is on a different map, they progress through a horizontal obstacle course, randomly generated, with distinct dodging mechanisms (slide, jump or other). Hitting an obstacle slows down/stuns the player. The player who has gone the farthest in the time limit wins. The player slowly gains speed to make the obstacles more difficult to clear. The setting is a nightclub while the obstacles are drunk people, tables, stools and any other dangerous opponents one might encounter in a nightclub.

- What is done :

A whole functioning script for the player's movements, including features like single jumps, animations for multiple actions, attacks (with space bar), different key recognition for the same movements but changing based on the player's preferred play style. (ex : up arrow = 'z' key) Implemented a parallax background, where all bugs were fixed. This mini-game also has a countdown timer and a death state message, even though this does not stop the game - yet. Finally, the greatest feature of this game is the random tile generating on the scene, two games won't be the same when the game will be finished.

- Ongoing :

Currently designing levels researching the implementation.

- What needs to be done :

Finish implementing multiplayer, add an AI for enemies and possibly for missing players, and add an end screen.

3.3.6 Can't run straight

- Number of players : 1 vs 1 vs 1 vs 1

- Goal: Kill of your enemies.

Each player moves their characters on a top down map. Each time they make a move, a trail is left behind. If the player touches one or more friendly trails, he crosses it. However, if the player hits an enemy trail, their trail gets erased and the player is placed back in his team's respawn zone. After 3 lives, the player is considered dead.

What makes this games hard is that every few seconds, the players in the game have their speed increased, making it more difficult to drive his character.

- What is done :

The player can move and create a trail that can kill the enemy and make it's trail grow or not by pushing the space bar.

- What will be done for the next defense :

- Spawn base
- Player Lives

3.3.7 Bonus 1 - Bool Ball

- Number of players : 1 vs 1 / 2 vs 2
- Goal: Put the ball in the enemy goal. There are no rules, you can hit the ball with any part of your body you can even hit your enemies. You can give powerful to weak hits called “strong hits” or “light hits”. Strong hits are less accurate, but if performed near another player they will be temporarily stunned. The winning team is the one with the most points, or in the event of a tie, the one that knocks out more people.
- No substantial work has been made on this game since its not a priority for the time being.

3.4 Endgame

Once all the rounds have been played, a final mini-game is launched, namely a Boss Battle.

3.4.1 Boss

The player who won the most mini-games becomes the boss and fights the remaining players. All players are equipped with the gear they have gathered since the beginning. The boss receives a significant boost in power and extra skills. The group that wins the battle, wins the entire game.

3.4.2 Post-game

A small scene plays out depending on the outcome of the ending, the game's leader-boards are displayed, and players are then sent back to the waiting room.

4 Technical

Because the game's atmosphere needs to be rave-like, the sound and visuals are really important to immerse the player in the game.

4.1 Development and Software

Since Deep Raved is a video game, the project will be made using the **Unity** software, coded in part with **Visual Studio** and **JetBrains Rider**, in the **C#** programming language. Additional software and programming languages will be used for the website and the audio.

4.2 Audio

Technical implementation for audio sources has been made, no sounds are currently played in all situations to refine the audio experience when every corresponding situation is fully operational. Music has been searched and selected for the all project but no current implementations have been made to focus our attention on technical details.

4.3 Visuals

Using the Unity software we can use and create 2D assets that can be integrated in the project. A lot of Assets have been added to the project, some from opensources other made by hand, this allows our minigames to be a bit more visually pleasing and comprehensible. For most games further work on UI needs to be done, to better present the concept of each minigame on a given round, though an even more refined visual aesthetic can greatly help the atmosphere.

4.4 Multiplayer AI

The multiplayer component in our mini-games is at its current state insufficient. Due to a lack of experience on our part, it has been a struggle to manage to implement multiplayer on any of our games, but this still allowed us to better conceptualize how our games in some capacity. Multiplayer and AI are our main concerns for the next defense and every game will be playable in multiplayer and have AI except for Can't Run Straight because its AI is the hardest of all to implement due to multiple factors.

5 Schedule

5.1 Task Management

In Charge: X ; Substitute: O

| | Dorian | Pavitrán | Aymeric | Christophe |
|--------------------|--------|----------|---------|------------|
| Board | O | | X | |
| Weapons & Talents | X | | O | |
| King Pong | O | X | | |
| Pitfall | X | O | | |
| Colors | O | X | | |
| Focus or Else | | | X | O |
| Can't run straight | | | X | O |
| Spam the line | | | O | X |
| Boss | X | X | X | X |
| Audio | | X | O | |
| Graphics | X | X | X | X |
| Multiplayer | | O | | X |
| A.I. | X | X | X | X |
| Website | | O | | X |

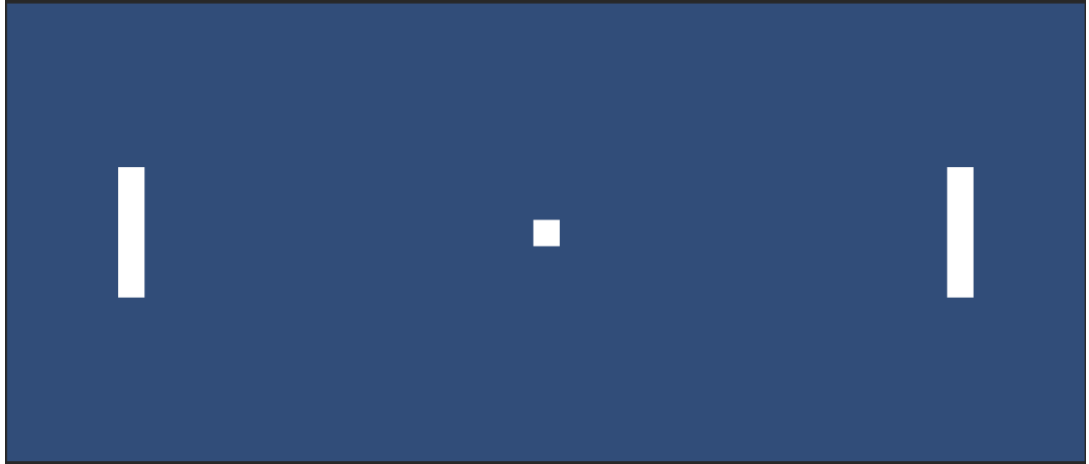
5.2 Schedule

Task Management In Charge: X ; Substitute: O

| | Presentation 1 | Presentation 2 | Final Presentation |
|-------------------|-----------------|-----------------|--------------------|
| Mini Games | 50% | 80%(currently) | 100% |
| Boss | 0% | 10% (currently) | 100% |
| Website | 75% | 100% | 100% |
| Multiplayer | 40% | 100% | 100% |
| Audio | 0% | 50% | 100% |
| Graphics | 45% | 60% (currently) | 100% |
| A.I | 0% | 25% (currently) | 100% |
| Board | 25% | 10% (currently) | 100% |
| Weapons & Talents | 10% (currently) | 50% | 100% |
| Bonus | ~ | ~ | ~ |

6 Mini-Games preview

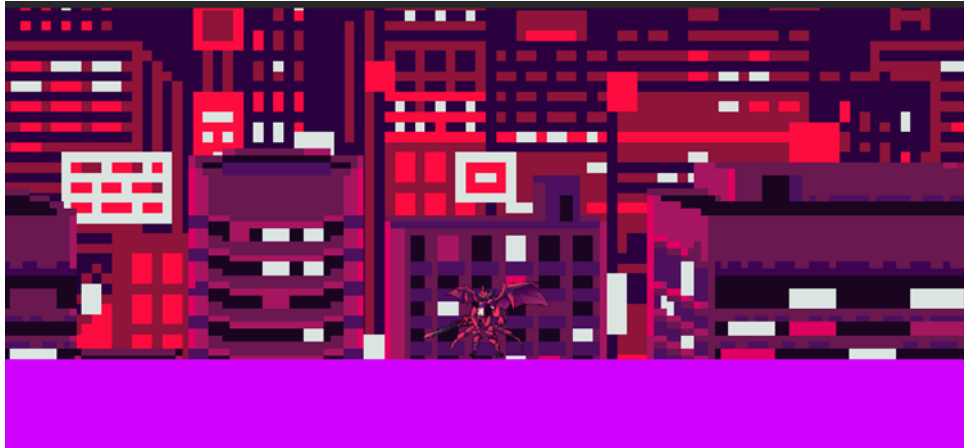
6.1 King Pong



6.2 Spam The Line



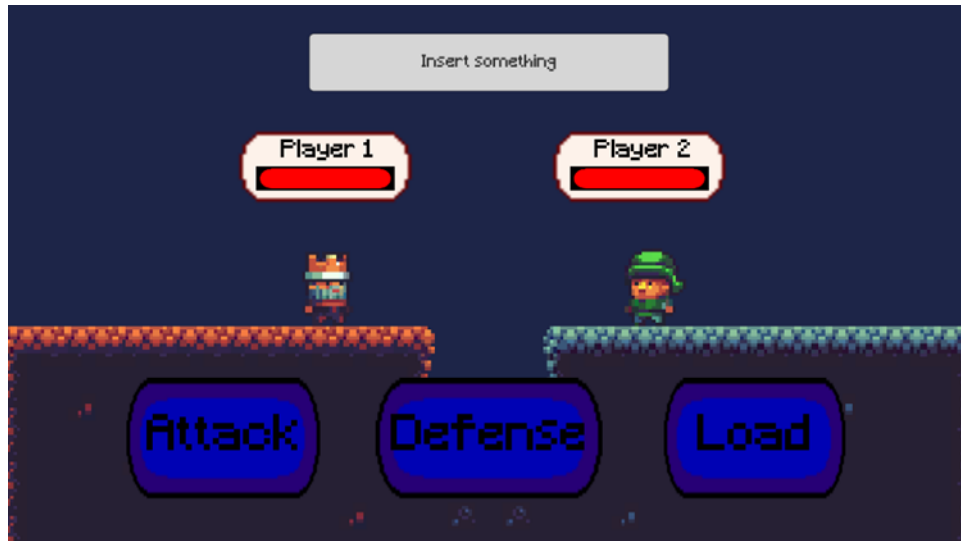
6.3 Anarchy Road



6.4 Can't Run Straight



6.5 Focus or Else



6.6 Spawn Colors



6.7 Conclusion

After a lot of trouble implementing the multiplayer we have decided to modify the board so there will now be a waiting screen where you can select the next mini game by voting and the weapons class talent will be deleted.