



Game Design Document (GDD)

Project Title: **BedVroom**

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URL for project GIT repo: <https://bitbucket.org/chrislbw/3d-car-project/overview>

URL for project blog: <http://chriswesemael.tumblr.com/>

Youtube link: <https://www.youtube.com/watch?v=GOUW-Z3KL6Q&feature=youtu.be>

Kongregate Link: <http://www.kongregate.com/games/chipindip/bedvroom>

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1. Introduction

This document is to show and explain my 3D part 3 project. BedVroom is a 2 player local multiplayer racing game, essentially toy cars racing around a room. The document will show aspects such as the development process, software used and my thought processes/ideas during production

2. Scope

This Game Design Document is here, so that anyone who wishes to can better understand why I went about the project in the way that I did, and to clear up any misunderstandings that anybody may have when first looking at the project.

3. Target platform(s)

PC and IOS, However a slightly modified version was made for web, to provide user feedback.

4. Development Software

4.1 Engine software

Unity 4.6.1

4.2 Programming software

MonoDevelop

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4.3 Artwork software

Photoshop CS6

MSPaint

5. Specification

5.1 Concept

The Concept was to make a 3d racing game where the cars are toy sized, So the track is made of giant household items and the setting is in a bedroom/kitchen etc. Also to provide a 2 player experience where the players can compete against each other (mimicking a real car race) using a Keyboard input. It has multiple elevation changes combined with boost pickups that the players can use to gain an advantage. A racing game with a light/ happy atmosphere, while still providing the player with some challenge.

5.2 Story

Its the middle of the night and two brothers dont want to sleep. To amuse themselves they make a race track out of objects in the room, so that they can race each other with their remote control cars.

5.3 Setting

The game is set in a childs bedroom in the middle of the night, two bored children have made a race track to race their remote control cars around.

5.4 Game structure

The game contains a single level, that contains multiple sections the player has to navigate in order to reach the finish line

5.5 Players

It is a 2 player local multiplayer game (meaning it can't be played across a network) where the players compete against each other to be the first person to cross the finishing line. Currently there is no ability to play the game in a single player mode, however if I was to further develop the project I would implement a "Time Trial" mode to allow for this.

5.6 Actions

The players use the keyboard to race against each other around the track, they can use boosts which they collect as they race to gain advantages. They must use quick thinking and precision to guide their car around the track as fast as possible.

5.7 Objectives

The players are trying to beat each other by being the first person to complete a specified amount of laps, using as many of the shortcuts and pickups as they can along the way.

6. Graphics

6.1 Styles

The game has a very light, uplifting feel to it, mainly to reflect the joy that toys provide children with. It accomplishes this by using a well lit scene ,assets that are in a cartoon style and light uplifting music throughout.

6.2 Fonts

The game uses a mixture of “Arial”, Mickey (A custom cartoony font) and “FasterOne-Regular” (Makes each letter look like it is traveling quickly)

6.3 Colours

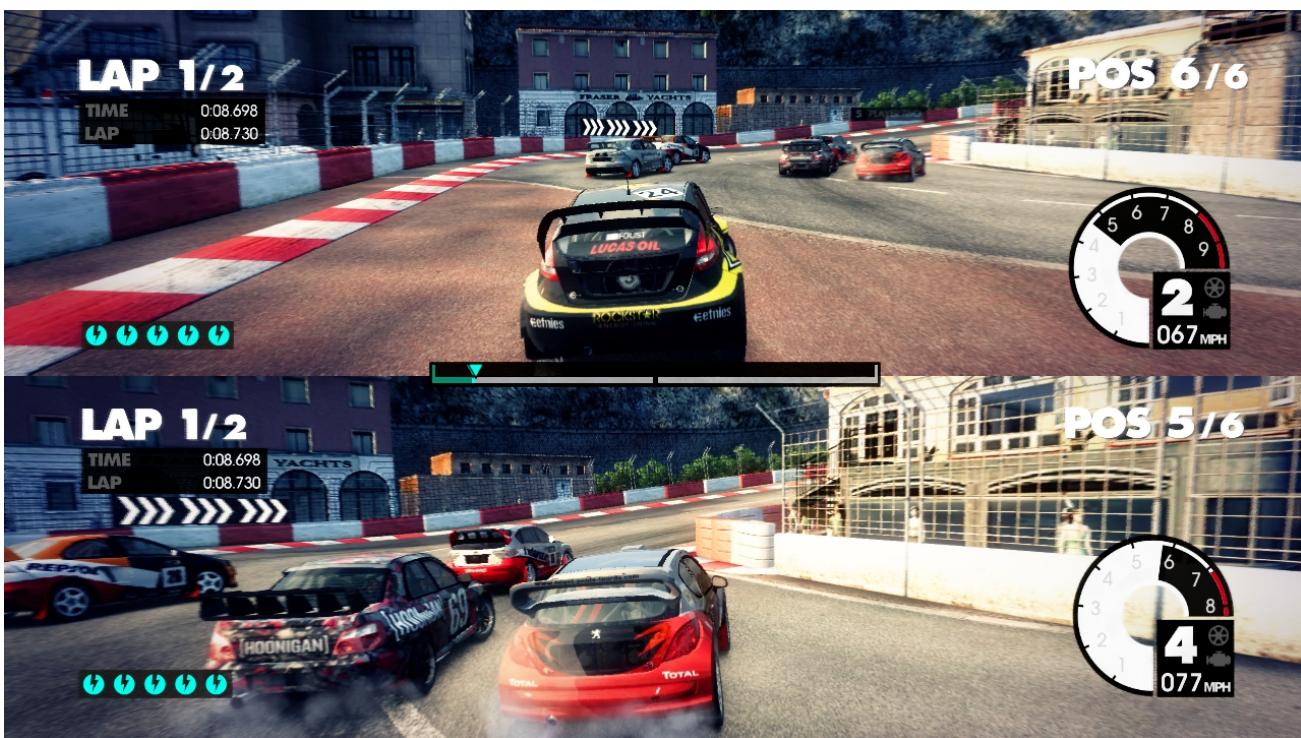
The game uses lots of light colours, mainly light wood colours such as #e7dbb1 a light tan ash, #b05f3e a light brown and #f1ead7 a very light cream. It also uses strong red, green and blue for bricks which are repeated throughout (#bf0000, #00bf00, #0000bf respectfully)

6.4 Influences

Super Toy cars was my biggest influence. It also uses very large household items to make the tracks, additionally it uses a large variety of powerups which make the racing more exciting



Second to this Dirt 3 provided the inspiration to do a “on top” splitscreen multiplayer.



Finally RC Toy Cars (ps2) game me the inspiration for the story behind the game and partially for the setting that I used.

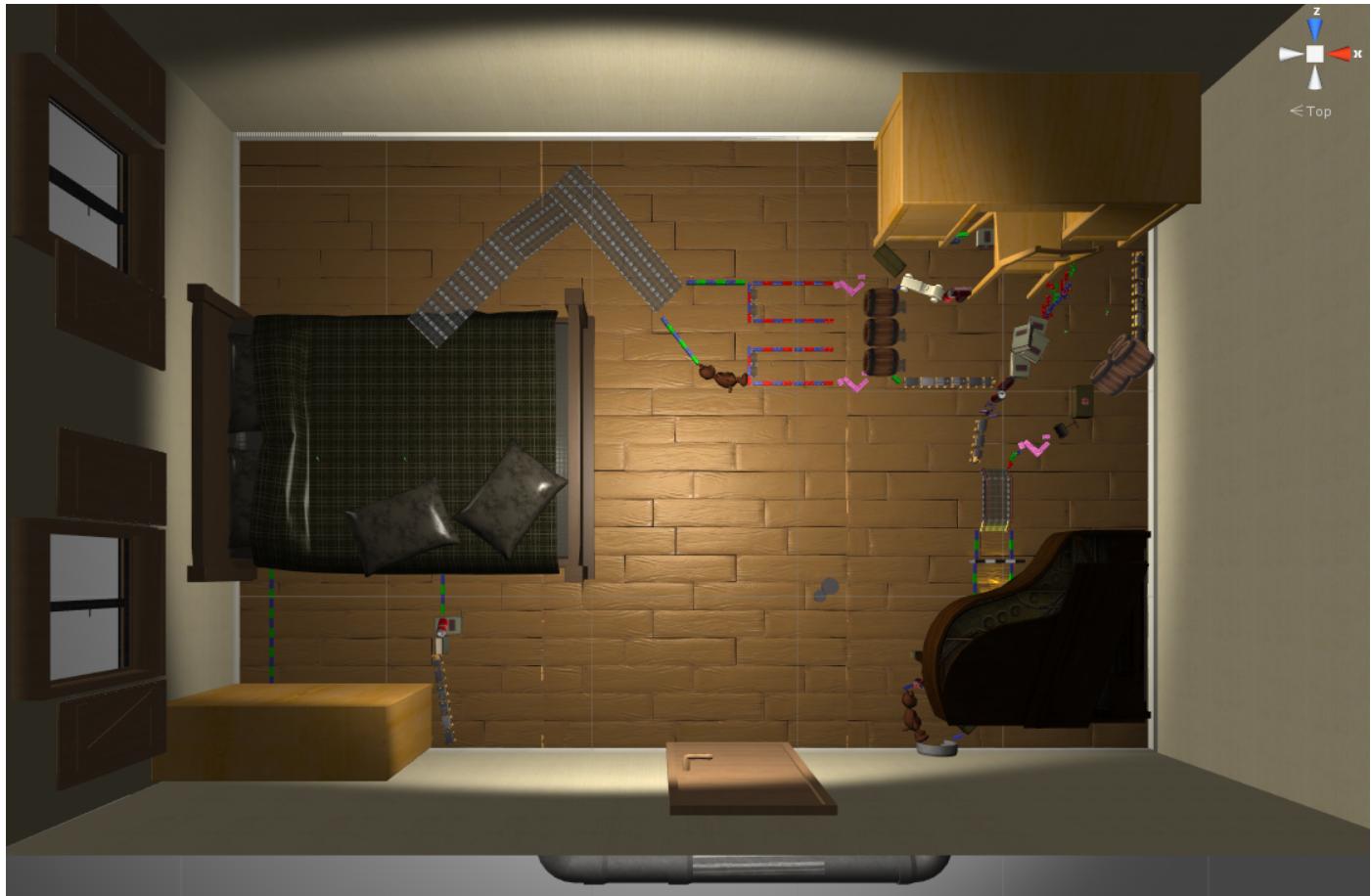


6.5 Look & Feel

A light Menu screen greets the player upon startup, to attempt to create before they start playing. Also allows them to navigate into the game using the buttons



Music is used extensively throughout the game to create an uplifting atmosphere. Below is a top down look at the entirety of the race level



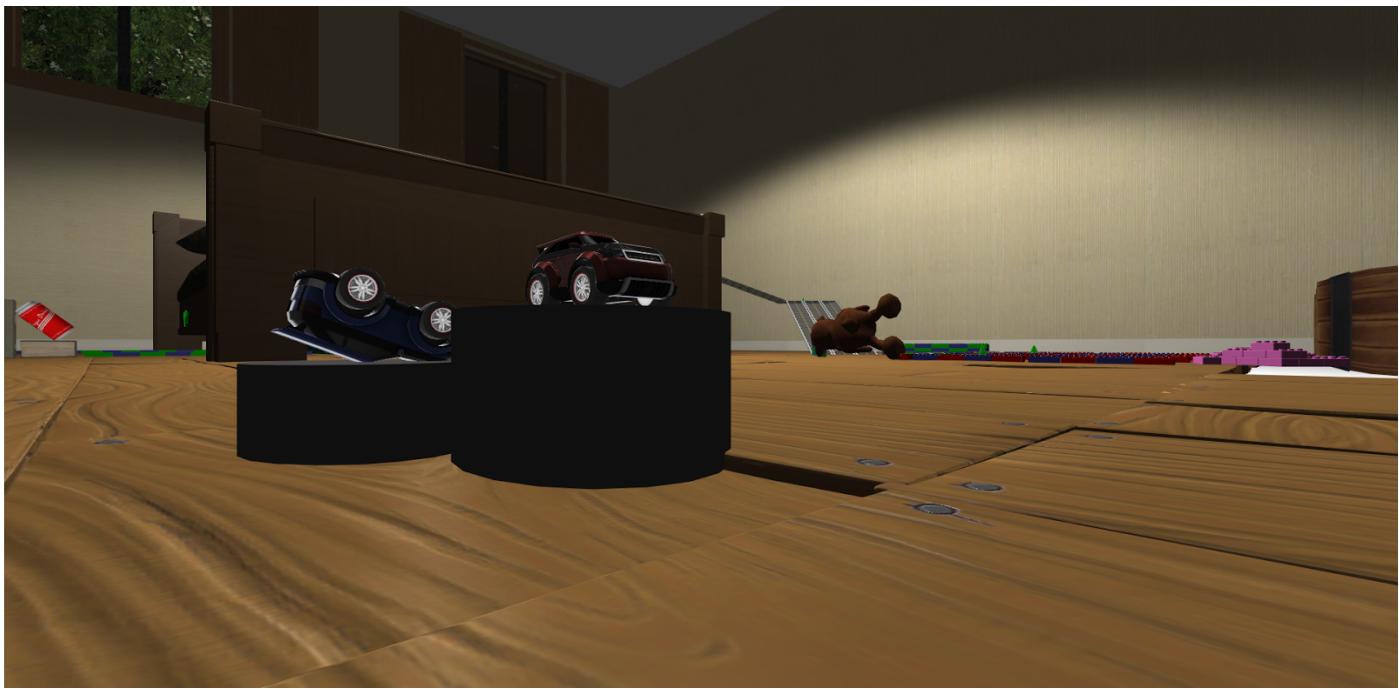
This is the views that the players will have when playing the game, with the players GUI's can be seen in the top corners of their screens respectively.

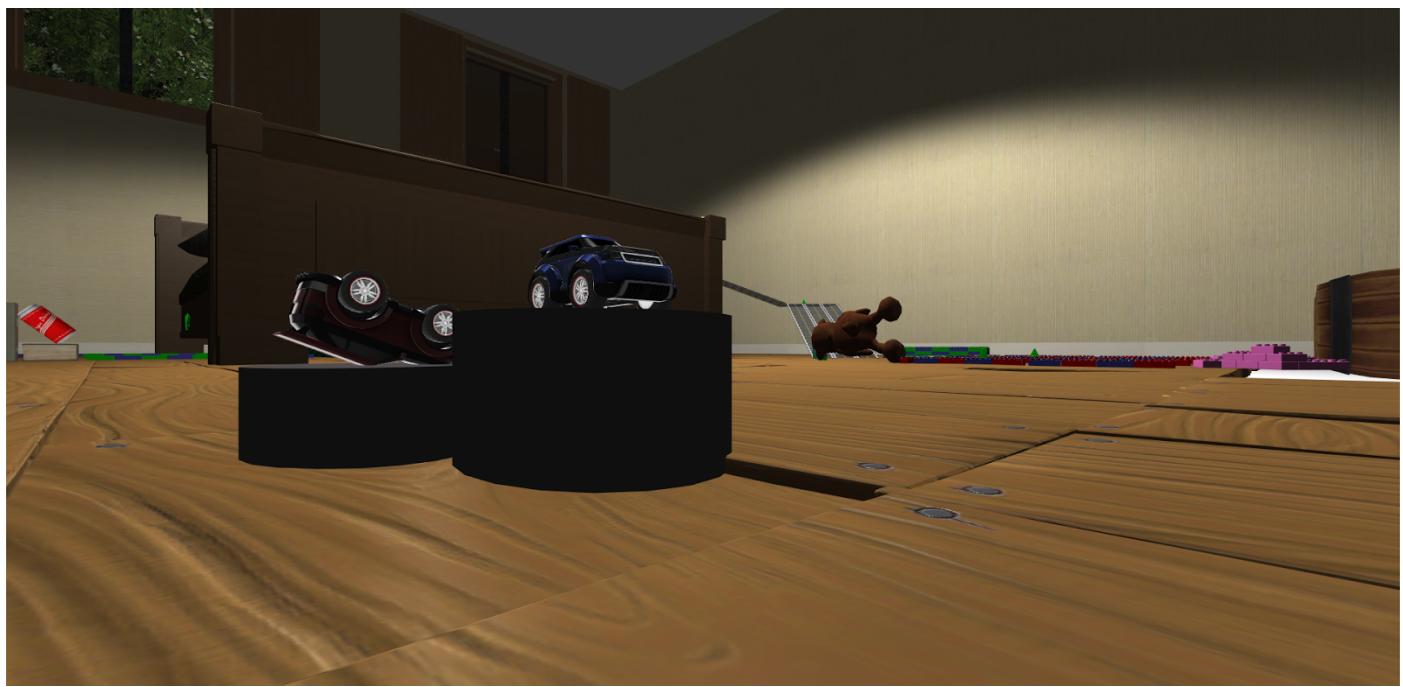


As can be seen below the pause menu appears over the top of the players cameras when used, However it could do with being made more visible in areas.



The following two screenshots are of the two different win screens (one for each player), when they load loud cheering is played.





7. Data storage

7.1 Local data

The Race Winner.

7.2 Online data

Nothing is stored online currently.

7.3 Social data

No social aspects are currently implemented into the game.

7.4 Statistical data

Game analytics.

7.5 Legal and Ethical Considerations

Target Age is 7+ this is because all of the aspects of the game are suitable for young children and promote healthy competitiveness. No foul language or scenes of a graphic nature are present.

8. Gameplay

8.1 World

The world is a confined room within a terrain that the player cannot leave, unless they complete the race.

8.2 Object types

The player can directly interact with all of the boost pickups (destroying themselves upon contact). They can also directly interact with some of the barrels that make up the scenes environment pushing them around.

The player can indirectly interact with all of the cameras that are present in the scene, they do this by passing the start finish line and by hitting other colliders around the race map. They also can effect the state of the start finish line, as it is deactivated by them crossing it, and it is reactivated when they cross the midway point of a lap.

Can add to their available boosts by collecting pickups.

8.3 Controls

The players use keyboard controls to handle turning, acceleration, reversing, boosting, flipping and resetting their car.

8.4 Direct control

ESC = Pause Menu

Player1

- UpArrow = Forward
- DownArrow = Backwards
- LeftArrow = Turn left
- RightArrow = Turn right
- RightShift = Boost
- / = Flip Car
- M = Reset Car

Player2

- W = Forward
- S = Backwards
- A = Turn left
- D = Turn right
- LeftShift = Boost
- E = Flip Car
- R = Reset Car

8.5 Indirect control

AI or other types of indirect control.

9. Supported hardware/platforms/devices

Keyboard, Mouse

10. Screens & Menus

10.1 Splash Screen





10.2 Game Interface



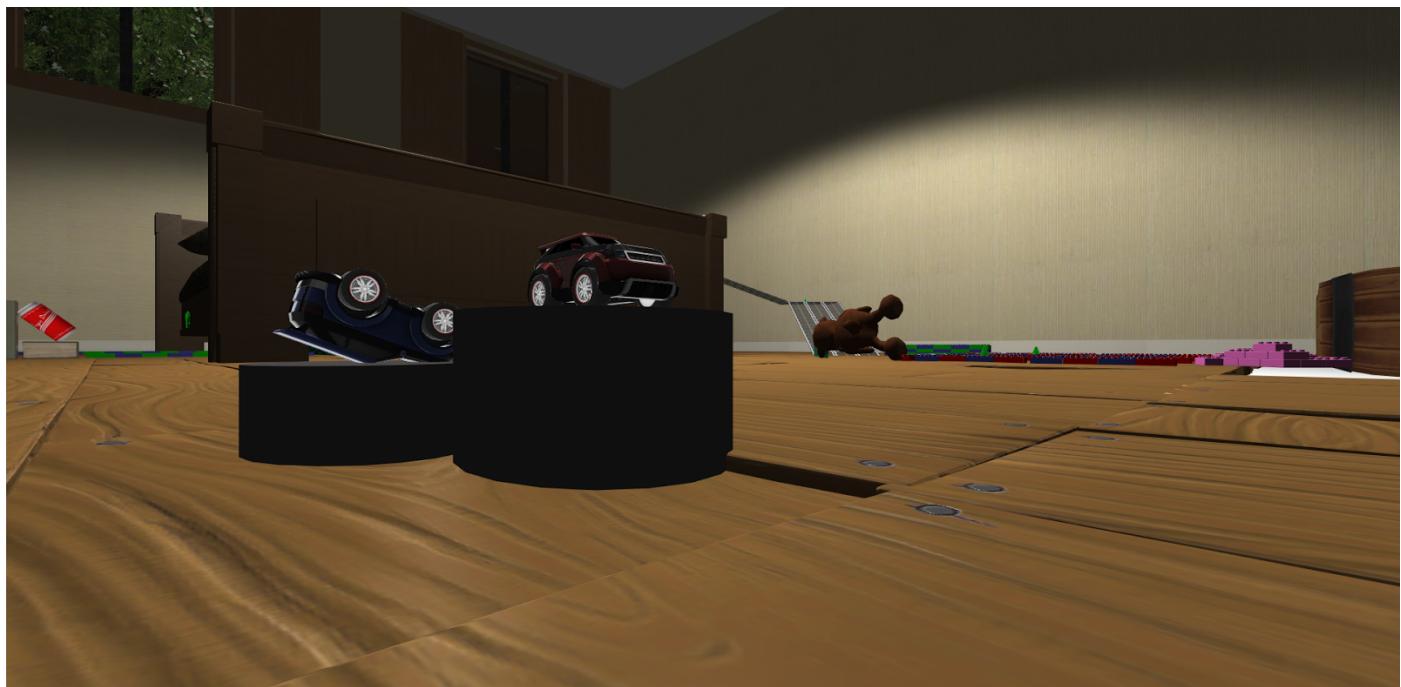
10.3 Pause menu



10.4 Options



10.5 Game Over



11. Credits

Iss-plymouth:- base scripts and base artwork

Kevin Macleod:- all of the background music used
"RetroFuture Clean" Kevin MacLeod (incompetech.com)
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"Feelin Good" Kevin MacLeod (incompetech.com)
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"Cool Rock" Kevin MacLeod (incompetech.com)
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"DrankinSong" Kevin MacLeod (incompetech.com)
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<https://www.youtube.com/user/Brackeys>:- Several useful tutorials helping with the GUI aspects

TurboSquid Free Base Model Assets:

- [nobicasa](#) - ToyTrain
- [SpecterArts](#) - 12oz aluminium can
- [ogsstyle](#) - Window
- [PlaceRebuilder](#) - Free Door
- [Artist Rendering](#) - Book 005
-Lego Block

Unity Asset Store:

- [Nobiax / Yughues](#) - Yughues Free Concrete Pipes
- Unity standard terrain assets
- Unity standard skybox assets