

Danish Driving Simulator

"A Demolition Derby Party Game with Guns"

DH2650 Computer Game Design

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Danish Driving Simulator (DDS) is a PC local party game based on the concept of bumper cars. Up to four players attempt to defeat the other players on different maps using unique weapons. With plenty of different ways to win along with constant progression, this game is directed to players of all ages looking for a quick and easy game to play and bring out at parties.

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1. Document Versions

Milestone	Description	Date
	Document Creation	31.10.2018
0.8	Concept	09.11.2018
1.0	First Prototype GDD	16.11.2018
2.0	Final Game GDD	18.12.2018

2. Overview

DDS is an action packed top-down arena shooter, with cars! Destroy your friends with wide range of inappropriate weapons. The local multiplayer and the game atmosphere is perfect for parties.

2.1. Main Concept

Massive Damage is a Local multiplayer party game. Each player controls a car equipped with weapons. The game objective is to destroy the opposing players by either inflicting enough damage or knock them off the map. Damaged opponents are knocked further. Points are gained for kills and survival. The movement of the car is forward/reverse and steering. The game is meant to be played with multiple controllers. The playfield is always visible to all players. Throughout the game players will get increasingly better weapons and tools. Destructible environment might open up new paths, block them or create a knockout zone.

TODO SCOPE, number of levels, cars, weapons, etc.

2.2. Unique Selling Point

describe you unique selling point in one paragraph

TODO describe target audience party games and how game is easy to learn,play and addictive. sense of competition

3. References

wc3 game

destruction derby

full auto research on similar games, what are the core features, how does your game differ?

4. Specification

description of target group, platform, art style, who to attract of how to attract

4.1. Player(s) / Target-group

DDS targets party gamers. Due to its place in a more relaxed setting rather than being a competitive game, it should attract more casual gamers. The difficulty in the controls might set the game's age target group at around at least 10+.

4.2. Genre

Local multiplayer; Action; Party game; Cars; Destruction; Top down; Tanks; Arena; Destructible environment; PvP; Arena Shooter;

4.3. Forms of Engagement

thinking of Hunicke's 8 kinds of "fun" - what would you like to focus on?

(1. Sensation - Game as sense-pleasure 2. Fantasy - Game as make-believe 3. Narrative - Game as drama 4. Challenge - Game as obstacle course 5. Fellowship - Game as social framework 6. Discovery - Game as uncharted territory 7. Expression - Game as self-discovery 8. Submission - Game as pastime)

4.4. Game Flow Summary

Initially all players will start with low power weapons and vehicles which they may upgrade through playing the game and winning. These upgrades will improve the game pace and feature set at hand which will keep players stimulated.

5. Gameplay and Mechanics

be specific about the core game features

also, add here a map of your environment or a picture of your world if necessary interaction with environment. how map created, how map react

5.1. Main Objective

what is the goal / main objective of the game? Win lose conditions

5.2. Game Mechanics

what objects will be in the game? very important section: what are the core mechanics? be specific

5.2.1. Cars

The base driving mechanisms has realistic car physics. Cars are controlled with acceleration, reverse, left and right steering.

5.2.2. Combat

Cars may have weapons equipped which can be fired in different directions and deployed at any time depending on the weapon. Some weapons may have cool-downs.

TODO describe all weapons

Collision

Cars may collide with eachother, the boundaries of the map, objects placed on each map, and weapon projectiles. Collision forces are exaggerated with extra forces added to simulate a bouncing effect upon collisions between cars and weapon projectiles. The more damaged a car is, the greater its collision bounce force becomes (Similar to Super Smash Bros).

Weapons

5.2.3. Maps

describe physics, maps

Economy

5.3. Characters in the Game

who are the characters in the game? how many players what caars etc, customization

5.4. Controls

describe the controls of the game also, add here a controller diagram if necessary for both controllers

5.5. Replaying and Saving

5.6. Cheats and Easter Eggs

6. Setting and Character

6.1. Mood and Emotions

what mood and emotions does the game create (can change e.g. for every level / section)

6.2. Story

the story of the game

6.3. World/Environment

what is the settings of the game , different maps

6.4. Art Style

The art style of the game is not of focus. Assets used for cars, weapons, materials and effects are all free and can be found in the appendix.

6.5. Strategies

how to play and win

6.6. Inclusion

Who can play the game

6.6.1. Diversity

Who will play the game and how can players express personality

6.6.2. Accessibility

Color blind? Sound to enhance visuals? Alternate control schemes? Custom controls?

7. Interface

Player information is located in each corner of the screen during gameplay (top-left, top-right, bottom-left, bottom-right).

description of front end such as start screen, menu screens,..

7.1. Start Screen

7.2. Menus

7.3. HUD

7.3.1. Control Displays

tutorial how, controls display

7.4. End Screen

7.5. Visual System

7.5.1. Rendering

7.5.2. Lighting Systems

7.5.3. Camera

The camera is constantly covering the whole map during gameplay. The camera shakes when large collisions or explosions happen.

7.6. Audio

7.6.1. Sound Effects

7.6.2. Music

8. Technical Bible

what technologies is the game designed for, what is the target platform, what technologies are used for the development?

The game is developed in Unity3d, which allows for its port to several platforms. However, throughout this project the game will be run on PC only.

8.1. Target Systems

Developed for Windows PC, possibility for port to consoles and other Operating Systems. Mobile ports would require further optimizations and redesigns in the control systems. They would also compromise the use of DDS as a "party" unless online multiplayer is implemented.

8.2. Hardware

DDS requires a Windows PC that can handle low-stress on graphics and processing power (most PCs released 2012-). The storage required is under 500MB (small game). For the full experience, four controllers are required. Xbox One and PS4 controllers are supported and tested. Others such as Xbox 360 may work but are not guaranteed.

8.3. Development Systems/Tools

The game is created in Unity3d. Organization within the team is managed using:

Communication: Slack/Messenger Version Management: Unity Collaboration Work Management: Trello

Individual development blogs are also made by each team member.

TODO describe how map created software sound tools?

languages

8.4. Assets

Assets are all free and retrieved from the Unity Asset Store. Further information can be found in the appendix at

TODO where from get all assets, appendix

8.5. Installing

TODO how to install?

9. Marketing and Publishing Strategy

describe here your plan how to get attention for your game (e.g. send to youtubers, twitter strategy, events)

what platform sell why

steam? free to play or pay?

free to play or low cost

events

10. Versions

Below is a table illustration each milestone of the game. Significant milestones will have their own subsection below.

Milestone	Description	Date
	Official Start Date	31.10.2018
0.1	Presentation of Concept	09.11.2018
0.8	Version 0.8 Hello World	16.11.2018
	Final Game	18.12.2018
	End of Project	01.04....

10.1. Version 0.8 Hello World

A full functioning game mechanic demo. Detailed models and music are outside the scope. The game should support up to four players. There should be at least one playable map.

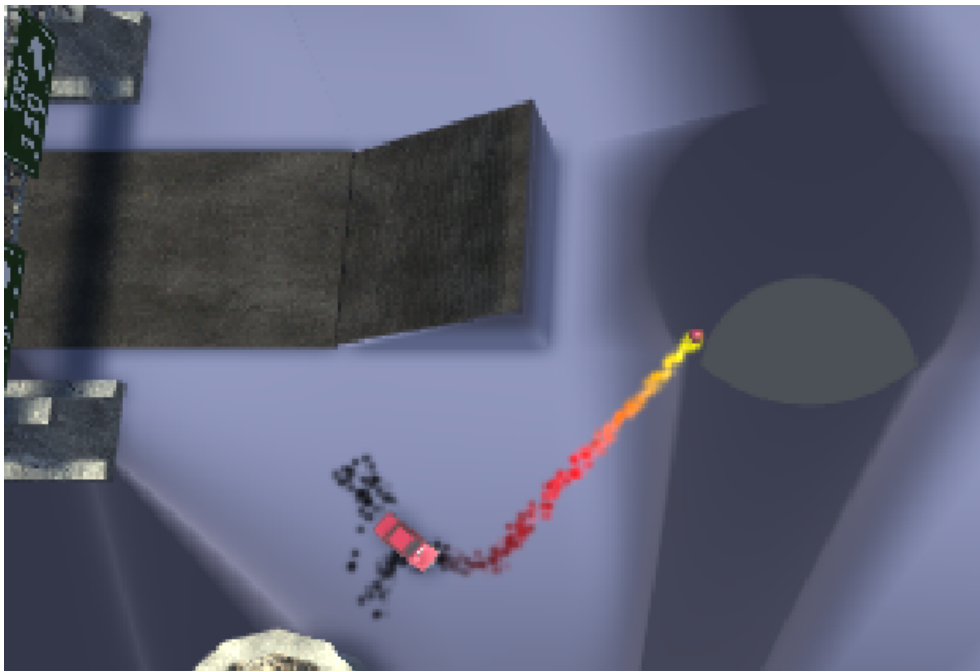


Figure 10.1.: Zoomed in screenshot of v0.8 gameplay

11. Team and Credits

most important - who are you, who takes what role?

Programming:

Art:

Design:

Sound:

Documentation:

Additional Credits (e.g. sources of art, audio,..)

Appendices

A. First prototype

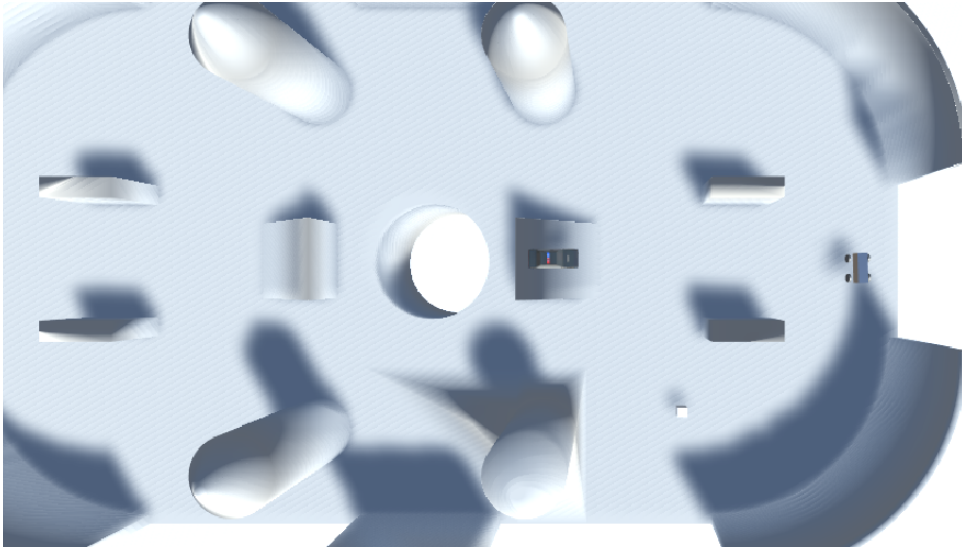


Figure A.1.: First prototype map and car

B. Version 0.8 Hello World Screenshots

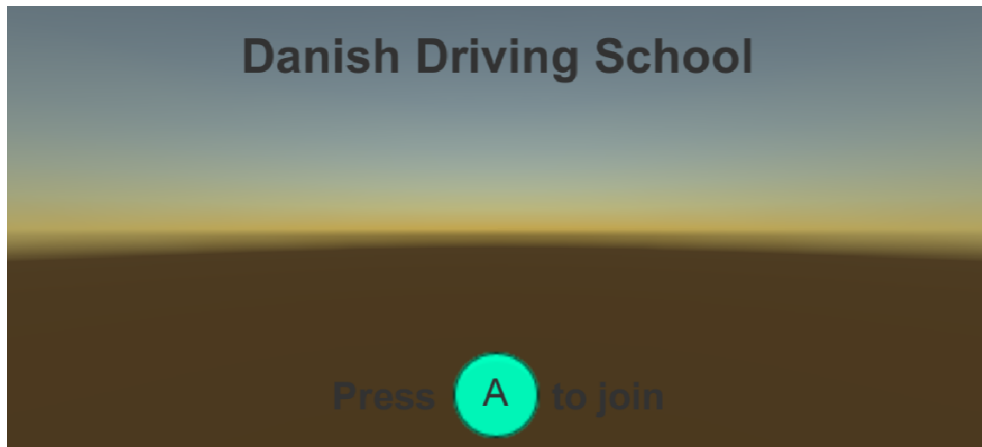


Figure B.1.: Main Menu

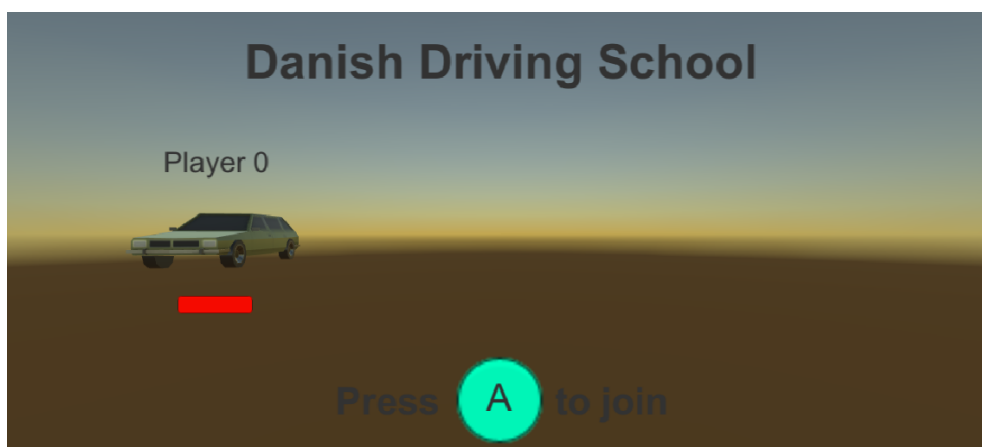


Figure B.2.: Main Menu with joined player

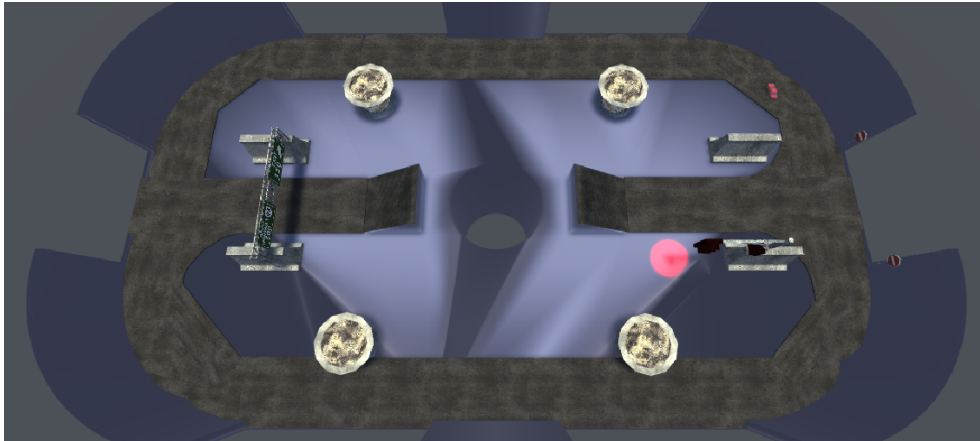


Figure B.3.: Screenshot of v0.8 map

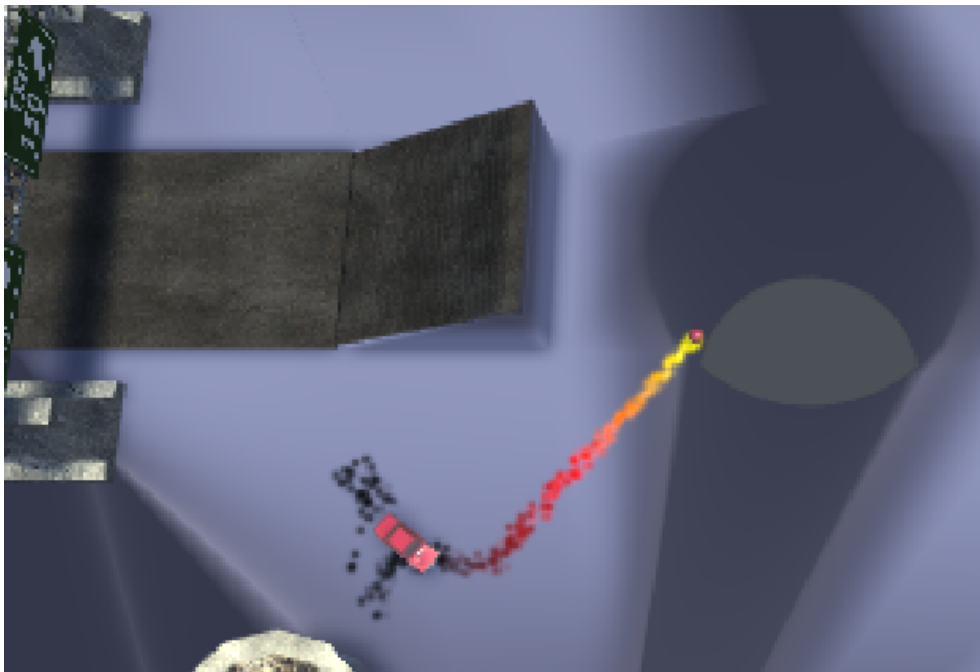


Figure B.4.: Zoomed in screenshot of v0.8 solo gameplay

TODO add all car models, all maps all weapons etc