

# GAME DESIGN DOCUMENT (GDD)

## Game Name:

"Need for Speed: Dead Racer"

## Genre:

Racing, Arcade

## Game Elements:

- Driving a car
- Avoiding random incoming vehicles
- Get new hearts on the road to revive
- Speed of the car gradually increases

## Player:

Single player

## Technical Form:

2D graphics

## View:

Top-down

**Platform:**

Windows, Linux

**Language:**

Python (Pygame)

**Device:**

PC

**GAME PLAY**

In this game, the player controls a car on a three-lane road. Game starts with a menu contains a Start button.

The objective is to avoid the random cars on the road. As the player progresses, the speed of the car gradually increases, making the game increasingly challenging. The player is able to see the speed shown in the corner. The player can brake as well. If the car crashed into the edges, the speed will decrease, but the health remains unchanged. The game ends when the player's car crashes into another car after losing three hearts. A stunning music is playing when the game is open. When crashed we hear its sound. We have also horn and brake sound.

## **Game Play Outline**

- Opening the game application
- Game options: Start, Quit, Select the car
- Modes: Single Player
- Game elements: Player's Car, Player's Health, Incoming Cars, Car's speed
- Game levels: The game continues until the player crashes
- Player's controls: Arrow keys for switching lanes
- Winning: High Score based on distance covered and unlocking new cars
- Losing: Crashing into another car or into the edges and then losing the all three hearts of the player's health
- End: Display Score and option to replay
- Why is all this fun? The gradually increasing speed of the car adds a thrilling challenge to the game. Unlocking new cars makes the player willing to play more and more.

## **Key Features**

- Simple, yet engaging gameplay
- Increasing difficulty level
- High score competition
- Showing the speed
- Unlocking new cars

# **DESIGN DOCUMENT**

## **Design Guidelines**

- The game should be easy to understand but difficult to master.
- The graphics should be 2D and visually appealing.

## **Game Design Definitions**

- Winning: The player wins by achieving a new high score.
- Losing: The game is lost when the player's car crashes into another car and loosing all three hearts.
- Transition between levels: The game gradually increases in speed as the player proceeds.
- Main focus of the gameplay: The main focus is on dodging incoming cars and surviving as long as possible. The player can get hearts appearing randomly on the road. The hearts are used for reviving.

## **Game Flowchart**

- Menu
- Car shop
- Game Play
- Player Control: Arrow keys to switch lanes

- Game Over: Crashing into another car or the edges and losing all three hearts.

## **Player Definition**

- The player controls a car and their goal is to avoid incoming vehicles to get the highest score.

## **Player Properties**

- Health: The car has three lives; The player can get more health by getting hearts on the road; Losing all three hearts ends the game.
- Actions: Switching lanes to avoid incoming cars.

## **Player Rewards (power-ups and pick-ups)**

- The reward is the high score achieved by driving longer distances.
- Player can get new cars by unlocking them
- Player has three hearts as health in the beginning.
- Player can get more hearts as they appear randomly on the road.

## **User Interface (UI)**

- Arrow keys are used to switch the lanes.
- The interface displays the current score, car's speed, the high score, the player's hearts, incoming cars.

Creators - Sponsored by ***Rockstar Games***:

Mohammad Reza Elahi, Mahshad Esmati, Aram Moradian, Hossein Rezaghali Gol