**EXHAUST BURNER**



Game Design Document

Fernando Caballero, Enrique Azcón, Iñaki Romanos, Manuel Lorenzo

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# 

# 

# Overview

## Genre

* + Racing Arcade Game

## Core Gameplay Mechanics Brief

* + Drive

## Targeted platforms

* + PC/Android

## Monetization model

* + Digital distribution
  + No Microtransactions or in-game purchases

## Project Scope

* + <Cost> 7.400€ approx.
  + <Time Scale> 1 month
  + Core Team
    - Iñaki Romanos
      * Gameplay Programmer and AI Programmer
      * 1.200€ / month
    - Fernando Caballero
      * Gameplay Programmer and 3D artist
      * 1.200€ / month
    - Manuel Lorenzo
      * Gameplay Programmer and Graphic Designer
      * 1.200€ / month
    - Enrique Azcón
      * Gameplay Programmer and Level Designer
      * 1.200€ / month
  + <Licenses / Hardware / Other Costs> 4 unity premium 150€ licenses)
  + <Total Costs with breakdown> 4.800€ on salaries, 600€ licenses, 2000€ marketing ads

## Influences

* + - Games
      * Art of Rally
      * Super Toy Cars: Offroad

## The Elevator Pitch

Exhaust Burner is a low poly, retro car game with arcade controls and physics. It has 2 different tracks where you can race against the AI and your goal is to beat them all in a race to become the best on the grid.

## 

## Project Description

A racing game created by university students which resembles classic arcade racing games. Our game has simple mechanics that aren’t very hard to master. We have created two tracks for the player to choose from. We’ve also given the player a selection of seven songs from different genres to choose from to have as the game’s soundtrack, which can be selected or changed any time in the menus as well as the music’s volume and the ability to mute the current song in case you want the game to be silent.

The main objective of the game is, obviously, to win the race. To do so, you must take the turns correctly, you must release the acceleration button, in order to avoid having the car drift and lose momentum, speed and maybe some positions, and start accelerating in the middle of the turn to gain traction again and recover your speed fast. The AI cars have more horsepower than yours, which means they achieve higher speeds than the player’s car, but that comes at a cost for them, since they have trouble turning because they go very fast. This is what the player must take advantage of; he must take the turns better and in less time than the rest of the racers in order to achieve an advantage over the others and win the race.

# What sets this project apart?

* + Arcade controls that give you that feeling of playing with toy cars.
  + An interesting AI that gives a *cool* driving vibe.

## Core Gameplay Mechanics

* + Driving
    - Drive the car through the track trying to overtake your competitors
    - You apply power to the rear wheels and rotate the front wheels in order to move the car.

# Story and Gameplay

## Gameplay (Brief)

The game has peculiar, unique, fluid and dynamic vehicle movements.

The vehicles are well balanced since even though the player’s vehicle is slower, it balances out with the worse turning abilities of the rest of the racers.

## Gameplay (Detailed)

The game has peculiar, unique, fluid and dynamic vehicle movements in which, in case the player tries to turn very sharply, will lose control of his vehicle and he will have to accelerate to top speed again which will take the player more time to do a lap and he will probably lose some positions.

The vehicles are well balanced since even though the player’s vehicle is slower, it balances out with the worse turning abilities of the rest of the racers. Which means that if the player manages to turn correctly without drifting or crashing with the guardrails , the player will maintain his momentum, unlike the rest of the racers who will lose their speed and will have to gain it again, and this will give him an advantage and will help the player escalate positions in the race

# Assets Needed

## 2D

* + Textures
    - Ground
    - Track
    - Menu buttons
    - Track picture selection
  + Models
    - N/A

## 3D

* + Environmental Art Lists
    - Trees
    - Rocks
    - Pumpkin
    - Snowman
    - Cars
    - Environment
    - Tracks
    - Guardrails
    - Buildings

## Sound

* + Outside (Ambient)
    - Soundtrack
    - Crowd
  + Inside
    - Motor
    - Tyres
    - Start lights

## Code

* + Character and Checkpoint Scripts
    - Player Car Controller (also manages IA)
    - RacerController (referred to collisions with checkpoints)
    - Checkpoint Data
  + Ambient Scripts
    - UI, menu and Game Controllers (lap time, lap count, position, checkpoint array, HUD, menu navigation, etc.)

# Schedule

## Model and acquire 3D assets

* + 4 days
    - Model all assets
    - Acquire assets and textures

## Player movement development and AI development

* + 1 week
    - Develop basic control
    - Apply it and create AI

## UI and Menus development

* + 4 days
    - Develop basic menu
    - Develop the UI along with the Race Controller (Lap time, Lap count, position, etc.)

## Fixing Bugs

* + 2 weeks
    - Fix bugs and have a functional first version
    - Have a first patch in case there are still bugs