

3GB3 - A5
RoadRider

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Assets Used

8 Bit Composers Super Pack LE (Free) 1.0
Carvi Media Entertainment

Free Barrel Model Pack 1.1
Black Horizon Studios

CRC12 – Free Demo 1.5.2
Alex Barbulescu

Hungry Zombie 1.0
Andryuha1981

Skybox Volume 2 (Nebula) 1.0
Hedgehog Team

Standard Assets 1.1.4
Unity Technologies

TrackGen – A Procedural Track Generator 1.01
Marcus Vinicius da Silva

Unity Particle Pack 1.3
Unity Technologies

Unity Samples: UI 1.2.1
Unity Technologies

Hand Painted Bottle 1.1
Antonio Neves

Road Blocker 4.0
Rakshi Games

Change Log

Script files I wrote code in:

- Events.cs - for game events
 - attached to the Vehicle Controller prefab, which contains the player controlled car
 - entirely my script
- RealTimeTrack.cs
 - (TrackGen – A Procedural Track Generator by Marcus Vinicius da Silva)
 - generates the entire environment besides a few game objects at start (4 torches, 2 zombies, 1 box collider, 1 vehicle)
 - the generation of the track in this script is not my work
 - the generation of the public GameObjects in this script is my work
- CarController.cs
 - (Standard Assets by Unity)
 - this script is not my work

-only added code to save current speed into PlayerPrefs

Issues Before:

- car does not get destroyed upon death and exists for a 3 second duration before returning to the start screen
- endless falling if you back up off the track at the start
- coins give inconsistent number of points
- [critical bug] obstacle generation y location is incorrect, maybe due to track slope
- [critical bug] obstacle generation x location does not work correctly at some ranges of track, somehow due to the track generation implementation
- no coin collection (only one point system for score existed)

Game Design Goals:

- powerups (partially implemented)
- two score systems (to be usable in a store):
 - zombie count system
 - coin count system
- store (partially implemented)
 - related components are existant - UI button location, currency (coins and zombies)
- obstacle for instant death
- collect currency personally for player

Fixed Issues:

- car now gets destroyed upon death
- falling off the track by backing up at the start will now result in death
- coins give a consistent number of points
 - first tried OnTriggerExit, but coins did not immediately disappear
 - resolved using a boolean in Update() to identify when a coin is triggering, which is to stop incrementing the score after the one necessary increment occurs

New:

- two assets - Hand Painted Bottle, and Road Blocker
- spawning locations of coins
 - coin x positions are next to each other (not totally random)
 - randomly disrupts a fluid line of coins to start a new line of coins at a new random x position
- [removed] added dust particles generation
 - turned off the generation
 - the algorithm spawned a new GameObject at random places along the track
 - this gave bad performance, should implement by making them spawn relative to the car
- added sandswirls generation beside the track
 - rotation is set to be the same as the adjacent track piece rotation
 - sand doesn't travel in its GameObject set rotation, and instead moves in the same global direction
- made each spawn frequency GameObject public, so their value can be changed in Unity
- added flash upon track piece spawn
 - can't be seen at distance
- counts number of hit zombies

- this is intended for achievements or currency
- added speed value, displaying with score and zombie count for now
- added new barrier obstacle, deals 10dmg when hit at a speed < 35KPH, death otherwise
- added count for coins
- added powerups (no active use yet)

Polished:

- lowered frequency of barrels
- better spawning location of torches
 - spawns at an edge of the track
- increased field of view
- moved UI from top to below the car

Existing Issues/Improvements:

- [critical bug] obstacle generation y location is incorrect, maybe due to track slope
- [critical bug] obstacle generation x location does not work correctly at some ranges of track, maybe due to the track generation asset
- an efficient algorithm needs to be developed for spawning particle systems; to avoid performance issues
- if by chance you are launched into the air by a collision:
 - the camera view is horrendous
 - you may fall too far from the track to hit intended colliders, and fall infinitely
- possible to get stuck on the edge of the track
- add: track has a lifetime, and falling off for being too slow should result in death
 - forces player to achieve store items (better powerups/vehicles) to survive on track longer
- [important] improve UI (ex. Speedometer)