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Assessment No.4 - Racing Game

Game Design and Development With Unity 3

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Elevator Pitch

Taking the type of race style of Death Race and combining it with Trackmania where speed is key and sabotage is the winning spree. The other players will not be your only enemy, the track will try to work against you and try to kill everyone that drives on it.

Schedule

Week 1

- Work on document
- Plan workload
- Draw concept art
- Basic driving system

Notes :

Week 2

- Start with bear bone mechanics
- Plane environment assets
- Block out map
- Lay track
- Model environment assets

Notes :

Week 3

- Model all environment assets
- Finalize code

Notes :

Week 4

- Test
- Add "Nice to have's"

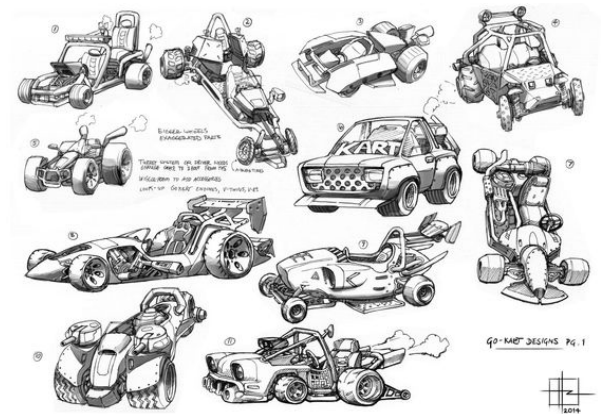
Notes :

Inspiration

CARTS



(Purewal)



(Zischkau)

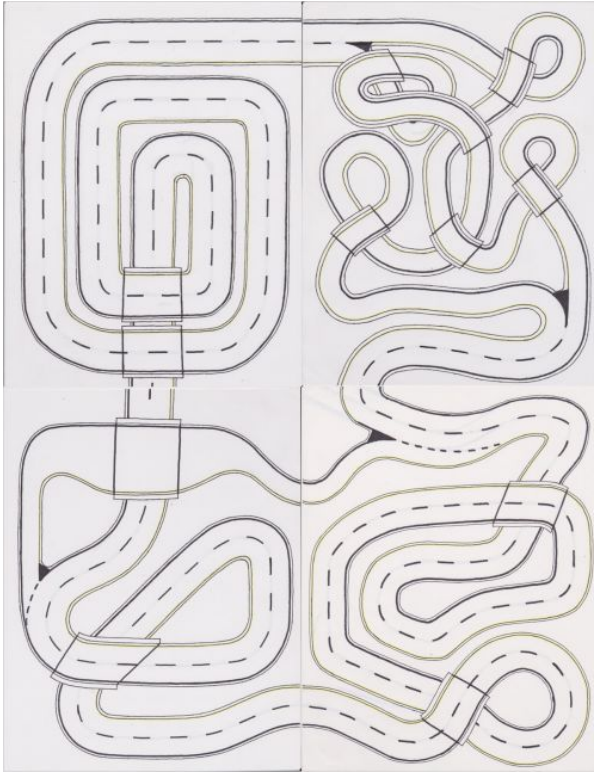


(Kumar)

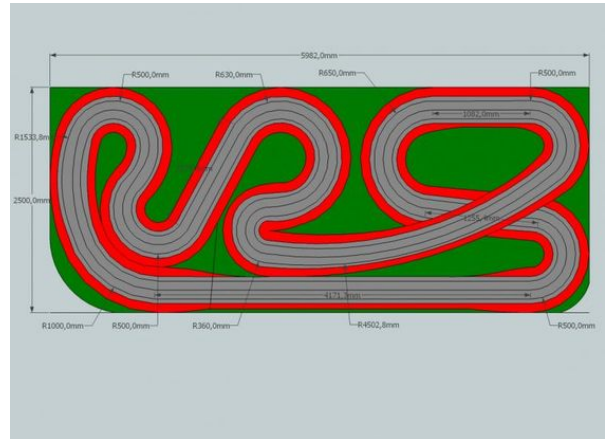


(Kumar)

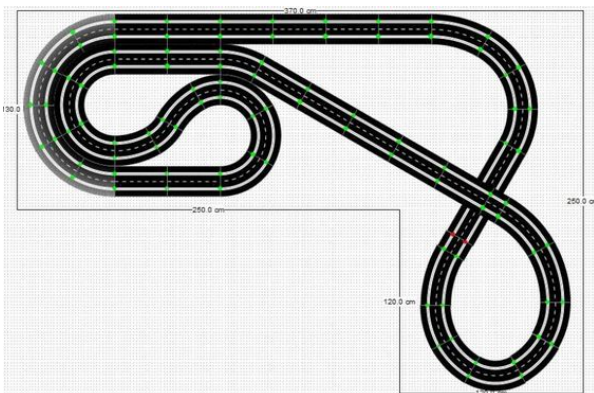
Track Idea



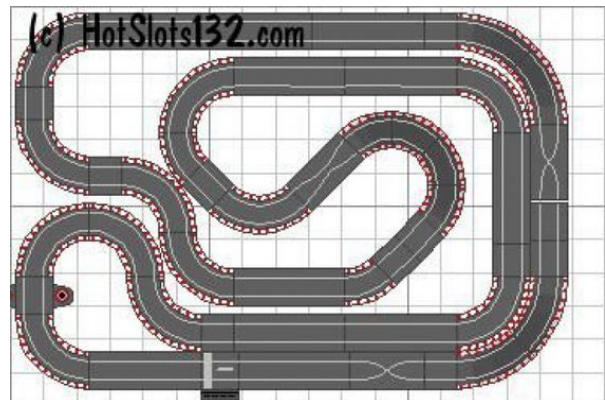
(Geek Alabama)



(plus)



(SkullKiller83)



(Pinterest)

Overview

Core Gameplay Mechanics

- Car movement
- Combat between cars
- Time
- Track have traps

Targeted platform

- Windows

Assets Needed

3D

- Go karts
- Start pole
- End pole
- Flag points
- Mystery power up
- Regain health power up

Code

- Spline system for track
- AI
- Kart steering
- Health bar
- Power ups
- Death if too far behind
- Start
- End
- Lap system
- Kart placement
- Exit system
- Resolution settings
- Sound settings
- Save system
- Difficulty of AI set
- Gain health by power up

Audio

- Kart sounds
- Winning sound
- Background cheering
- Death sounds
- Start horn
- UI interactions

GUI

- Pause system
- Start menu
- Controls menu
- Loading screen
- Exit menu

Graphical User Interface(GUI)

- Start menu
- Options
- Controllers viewing
- Exit
- Pause menu
- Ingame informations
- Game over menu
- Winner menu
- New high score

Sound

- Kart sounds
- Winning sound
- Background cheering
- Death sounds
- Start horn
- Ui interactions

Visual Effects

- Smoke for engine
- Tyre spinning smoke
- Driving
- Exose flame
- Recover health
- Running out of health kart in flames
- Kart explosion
- Victory sparks
- Wall sparks

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3rd party assets in project

I used the following assets to help with my game

Unity Karting Microgame

<https://learn.unity.com/project/karting-template>

- 1.With environment assets
- 2.Formulas in code
- 3.UI help
- 4.sound in background