

Requirement Specification

Summary-

Drive your car on the infinite plane, racking up points by flying through the air and achieving maximum drifting. Avoid obstacles and try to get the high score!

Gameplay Basics-

The game is an endless runner 3D driving game. You rack up points for staying alive, but get large bonuses for doing tricks off ramps, and maintaining a smooth drift. Avoid obstacles on the road, and drive through pickups for enhancements. The car's speed increases with time, making it harder to react.

Gameplay Details-

The endless level has straight sections with ramps where you can perform large jumps, and curved sections where you must drift to avoid falling off. Gain extra points for doing well on jumps and drifts. For jumps, land full flips, gain even more points for combinations and unique strings of movement. Use nitro fuel to influence your movement even more. For drifts, ride the line between falling off and playing it too safe. Avoid obstacles by jumping over or going around. Close calls get you more points.

Pickups:

- **Point token:** Simple way to get more points.
- **Multiplier:** multiply your point acquisition. Varying levels.
- **Nitro Fuel:** juice up your nitro pedal.
- **Shield:** one free collision without death.
- **Missile:** destroy an obstacle directly in front of you.
- **Precision Time:** slow down time for a short duration as your senses are enhanced.
- **Sluggish Time:** (negative effect) makes the car hard to control for short duration.
- **Divider:** (negative effects) divides your point acquisition. Varying levels.

Menus, Interaction, and Presentation-

There will be a main menu featuring the vehicle speeding forward. The title is displayed in stylistic font, and there is a prompt asking the player to "Press Any Key to Begin". There will also be a quit button to exit the game.

Once the game begins, there will be a window with an explanation of how to play and controls. This will also prompt the user to press a key to continue.

The game can be paused by hitting the "Esc" key. This will allow the player to resume the game, or go to a "help" screen which will display the controls and goal of the game. The pause menu will also let the player quit the game.

Upon a game over, the game will display a Game Over screen that displays the score. It will prompt the player to "Play Again" or "Quit".

The Heads Up Display (HUD) will consist of the current score, the power up being held, the car's speed (analogous with level difficulty).

Art Style, Visual Flair-

The art style will be low-poly 3D models. The backdrop will be inspired by 80's synthwave aesthetic. Lots of neon colors, dark blues and bright pinks. We will need models for the player car, pickup icons, ramps, and main track. 2D textures would be ideal for background elements. The menus and HUD will need 2D textures as well.

Sound-

The game will feature a looping song throughout. Once it reaches the end, the song will restart. The song will have elements of synthwave, with arpeggiated basslines, large pads, and sharp leads.

The game will also have sound effects (SFX) for various actions. The car will have an acceleration sound, a drift breaking sound, a thruster sound, a flip sound. There are sounds for power pickups, successful combos, and collisions with obstacles. Lastly, the menu will have a start game sound, a click sound, a pause sound, an unpausesound, and a return sound