Design Document
for

DESERT RUN

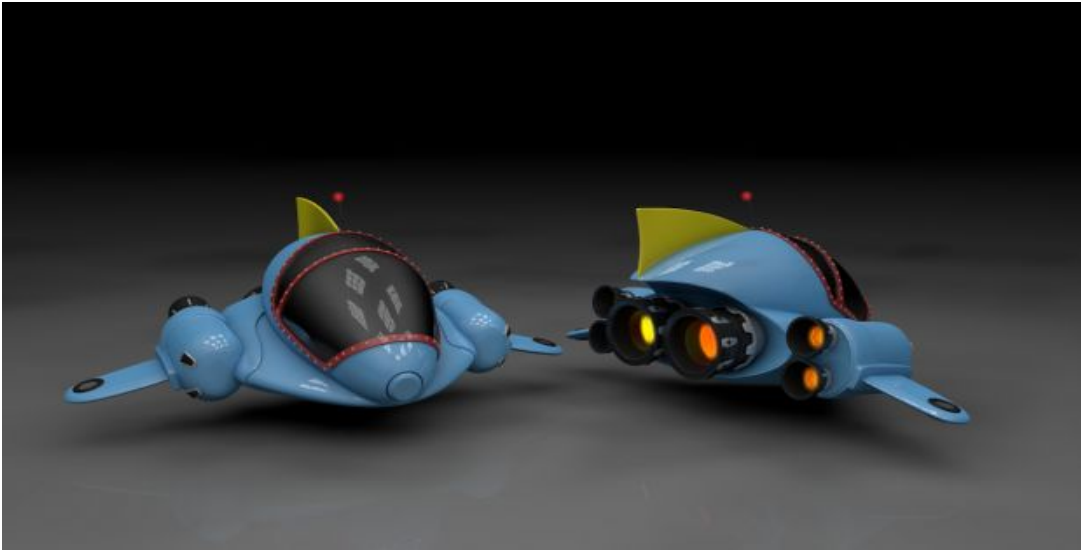# by

Team Nauticult

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INITIAL PREMISE:

Desert Run is an infinite 3-D virtual reality runner akin to *Race The Sun* in which the player assumes control of a spacecraft and must avoid obstacles to reach the end of three levels using the Oculus Rift's VR motion controls. Initially, the game would transition between three levels: Marina (an underwater level), Terra (a ground-floor earth level), and Nebula (an airborne level). This was back when the game still existed under the codename *PolyRunner,* which prominently featured a hydroplane that the player would control to navigate through ever-changing landscapes.

Controls: The gameplay of Desert Run is completely void of any button presses, relaying all controls through the Oculus Rift's headset. Nuanced motion controls allow the player to control the spacecraft through a range of force and angle-sensitive tilting. Hovering over a menu option for long enough allows the player to "click" on the specified item.

Inspiration: *Desert Run* draws its inspiration from infinite runner games like *Race The Sun* and *Rhythm Racer,* while drawing its aesthetics from desert backdrops, most specifically, Area 51.

FINAL PREMISE:

Objective: After reconsidering our lack of central theming with *PolyRunner,* we decided to tighten focus on a particular aesthetic and set of circumstances. You, the player, assume control of a stolen spacecraft while trying to escape the hazardous, unending terrain of Area 51, with the authorities hot on your trail.

Setting: *Desert Run* takes place in the middle of the desert near Area 51. The player is trying to escape from the area in a broken stolen spacecraft.
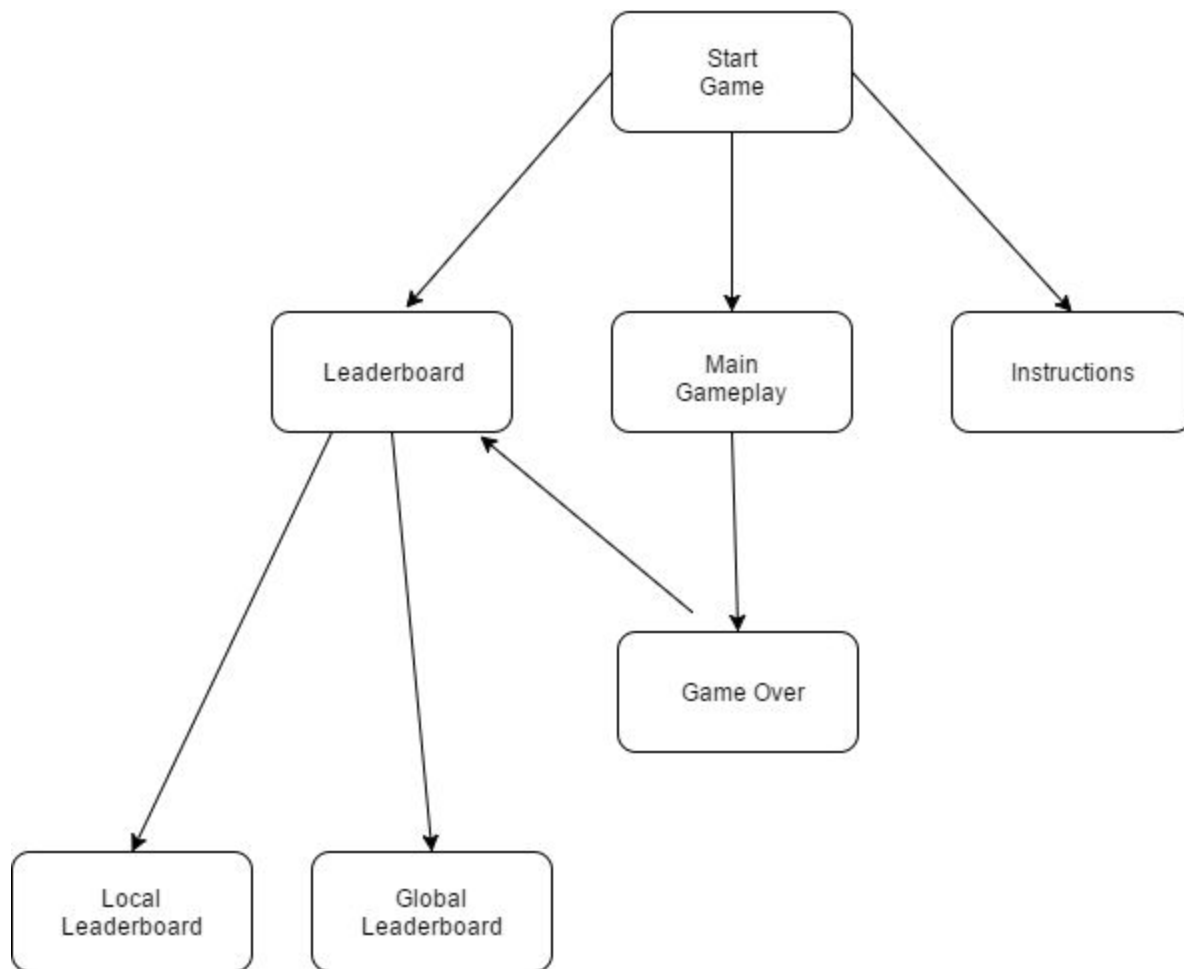
Edge: As of right now there are not a whole lot of games out for the Oculus Rift. There are a few other endless runners but they are extremely simple and don't provide a lot of obstacles. Our game is providing a different variety of objects for the player to interact with and keep track of.

Game Experience: When the player first starts the game they will be fully immersed into a desert like world. They will see a large start button that they will need to hover over before they can start playing. Once this is done the player will see their ship which has a fuel gage and a score attached to it. The farther the player goes the higher their score will be. In the world the player will be immediately introduced to a small maze that will teach them the basics of maneuvering their head by trial and error. Once the player reaches the end of this the world will open up to them and they will have to avoid obstacles that are in our randomly generated waves while they also look at their fuel bar and try to find their next fuel pack. The player hitting an obstacle will lower the fuel gage on top of the fuel gage decreasing every second. It's up the the player to find more fuel packs before the gage reaches zero. This give the player constant objectives. The game ends if your fuel gage reaches zero. When the player dies they will be shown a high score board where they can try to beat past scores or their friend's scores.

<u>Desert Run Word List</u>

- Desert
- Endless
- Interactive
- Cartoon
- Escape
- Panic
- Fast
- Space
- Area-51
- Chase
- Challenging
- Tight-squeeze
- Rushing
- Adrenaline
- Excitement
- Bright
- Contrast
- Hyperactive
- Hectic
- Frantic
- Heart-pounding
- All-ages

GAMEFLOW:

Start Game → Leaderboard, Main Gameplay, Instructions

Leaderboard → Local Leaderboard, Global Leaderboard

Main Gameplay → Game Over → Leaderboard

Test Plan and Test Report

Round 1 Testing:

What head movement did people think was more natural when trying to turn the ship?

Result:
People felt that is was more comfortable to tilt their head to direct where the ship when instead of turning their head from left to right.

Round 2 Testing:

How fun were the obstacles when they were randomly put anywhere compared to the randomly generated waves that were designed by someone?

Result:
The test showed that a combination of generated waves and some randomly placed obstacles increased replayability as well as adding a challenge to things the player had to avoid hitting.

Round 3 Testing:

Do we have enough contrast in our colors where players can easily tell obstacles apart?

Result:
There were some areas where it was hard to see the difference between different obstacles so the colors of the obstacles were made to be bright and vastly different. There was one part where there are a bunch of little dark half walls. There has been sand added in way that makes those pieces look more apart while still keeping the difficulty up. This specific part has not yet been tested with players but the developers have themselves have see a vast difference.

Round 4 Testing:

Is adding a fuel gage to the ship that continuously goes down during play causing the player to search for fuel packs too hard and distracting to the main focus of the game?

Result:
It was decided that the fuel gage component was a good way to keep the player engaged with miniature objectives while avoiding obstacles. Although, it was thought that the fuel gage continuously going down was too distracting and took away from the fast pace that was wanted in the game. Now the gage goes down when you hit an obstacle and continues to go down until you get a least one fuel pack which will also replenish your fuel pack.

Future Considerations:

If **Team Nauticult** were to continue working on *Desert Run* with the affordances of unlimited time, funds, and resources, we would like to incorporate the following into the final version of the game:

- A gripping intro cutscene
- A swarm of Jeeps following behind the player at all times, visible if you make the risky decision to look behind yourself
- A wider variety of interactible/static assets
- Changing terrain (height and texture of floor)
- SICK MOTION BLUR
- Dominos that fall upon reaching their trigger radius
- Particle effects for degrading state of player ship/when ship crashes
- Robust soundtrack
- Online PvP race matchmaking
- Free-access level editor where fans can make and publish levels of their own