

# Game Proposal

## Game Description

### Overview

Elements Racing is an action racing game where the player controls his avatar's vehicle through a lap-based race track.

The race starts on a dirt track with the drivers controlling their earth car, a go-kart-like, four-wheeled vehicle.

Along the way, the player collects coins of three different kinds (earth, water and fire). As soon as he has collected three coins of a kind, three things will happen:

1. A count-down of 10 seconds will be triggered. When the count-down reaches zero, the world will transform into the new type (e.g. collecting three water coins results in the world being flooded, fire coins cause the roads to be transformed into lava and earth coins dry out the world converting it back to its initial state).
2. The players car starts transforming into a new vehicle, allowing it to be manoeuvred in the transformed world (attached floating devices for the water world, heat shield for lava and wheels for earth).
3. All coins he has collected so far will be lost.

The transformation of the world will urge other player to do one of the following in before the count-down reaches zero:

1. Complete the collection of the coins of the kind into which the world is transforming and get the corresponding upgrade, exactly as the player triggering the transformation did.
2. Complete the collection of any other kind of coins which will stop the transformation in progress and trigger the count-down for the new transformation instead.

If the other player fails to do one of the above in time, his vehicle will not be able to handle the new environment. It will still be able to move, but much slower, while constantly decreasing the player's energy bar. Once that energy bar is empty, he loses a life and respawns in the same place where he died but in the vehicle adapted to the current world. His energy bar is now full again but all his coins are lost.

The game is won either by a player completing the three laps of the race course first or by his opponent losing all of his lives.

## Environment Types

The **Earth** type environment consists of a dirt track. Only the wheel-based vehicle can be used on the dirt tracks. The water and the lava vehicles will run aground.

In the **Water** environment, all roads are flooded and can only be traveled on with the water vehicle. The earth or the lava vehicle will drown.

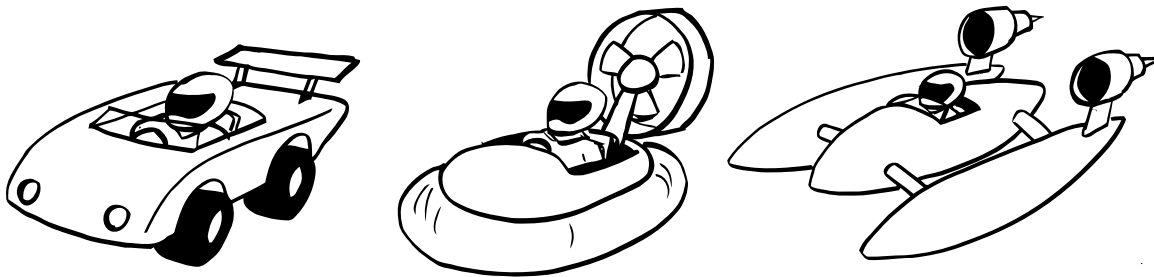
"The floor is lava" is the theme of the **Fire** world. The earth car or the water vehicle will immediately burn so it is only possible to survive in the fire vehicle.

## Vehicles

The **Earth Car** is a go-kart-like, four-wheeled vehicle. It can only be navigated in the earth environment. It will only move slowly in water and lava and drown respectively catch fire when the energy bar is empty.

In the water world, the player controls **Water Vehicle**, a floating vehicle similar to a hovercraft. It is not able to handle lava for long and will move slowly on the dirt track. It is being destroyed when the energy bar is empty.

Moving through the fire world requires the **Fire Vehicle**, a heat-resistant vehicle covered in titan. It floats on lava but is too heavy to keep fully afloat in water. Like the water vehicle, it will run aground in the earth environment.



## Coins

There exist three kinds of coins - earth, water and fire - which are scattered across the course. The player collects them by driving through the coins and keeps them in his inventory. Collecting three coins of a kind will trigger the count-down transforming the world. Coins are dropped by being hit by another player or by crashing into obstacles. Triggering a transformation will make the player lose all the collected coins as will dying by not being adapted to the transforming world.

## Transformation

Whenever a transformation is triggered, the players will be displayed a count-down starting at 10 seconds. Once it reaches zero, the world transforms into its new type within seconds. These transitions are possible:

Earth to Water: Giant water outlets flood the track and the water level in the roads rises quickly.

Earth to Fire: The giant outlets thrust out lava, covering the roads.

Water to Earth: The water level decreases revealing the previously covered dirt track.

Water to Fire: Lava comes out of the outlets converting the water into lava.

Fire to Earth: The laval level decreases in the same way the water level does when changing form water to earth.

Fire to Water: Water comes out of the outlets converting the water into lava.

## **Goal**

The player's goal is to either finish the race first or be the "last man standing" by having his opponent lose all three life. This offers a way of possibilities to play the game since it introduces a strategic component in addition to the classic racing mode.

## **Platform**

In the first version, the game is played in a split-screen setup on a Windows or Mac OS X computer. It may be deployed on the OUYA console later on.

## **Technical Achievement**

We consider the transformation of the environment to be the main challenge and one of the most critical points. Since it should create the impression of the world transforming over time and not instantly by just switching models and textures, this may involve combining multiple effects such as geometry transformation, particle effects and mesh animations.

Another key features is the behaviour of the vehicles on ground, in water and in lava. It is to be implemented in a way that makes controlling the vehicles both easy and fun.

## **"Big Idea" Bullseye**

The big idea behind our game is the combination of the classical racing concept with a different aspect of knocking out enemies. This allows for a far more strategic way of playing than offered by existing games focusing on only one aspect.

From a technical point of view, the transformation of the environment is clearly the part which will make our game outstanding in that matter.

## **Development schedule**

We collected ideas of possible features and grouped them into layered categories sorted from absolutely crucial to nice-to-have extras:

### **Functional Minimum**

- Race mode on a lap-based track
- Simulate driving in a wheel-based vehicle
- One basic course
- 2 player setup with split-screen
- Platform: Windows and Mac OS X

### **Low Target**

- Transformation between earth and water world
- Water vehicle floating on water surface
- Coins to trigger transformation
- One detailed course

### **Desired Target**

- Transformation between earth, water and fire world
- Fire vehicle floating on lava surface
- Life points being lost when world changes and player hasn't transformed in time

### **High Target**

- Detailed levels with short
- Two to three highly detailed courses

### **Extras**

- CPU players
- Network mode
- Additional items such as weapons or turbo boosts