Elements Racing - Interim Progress Report

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Activities since pitching the game Idea

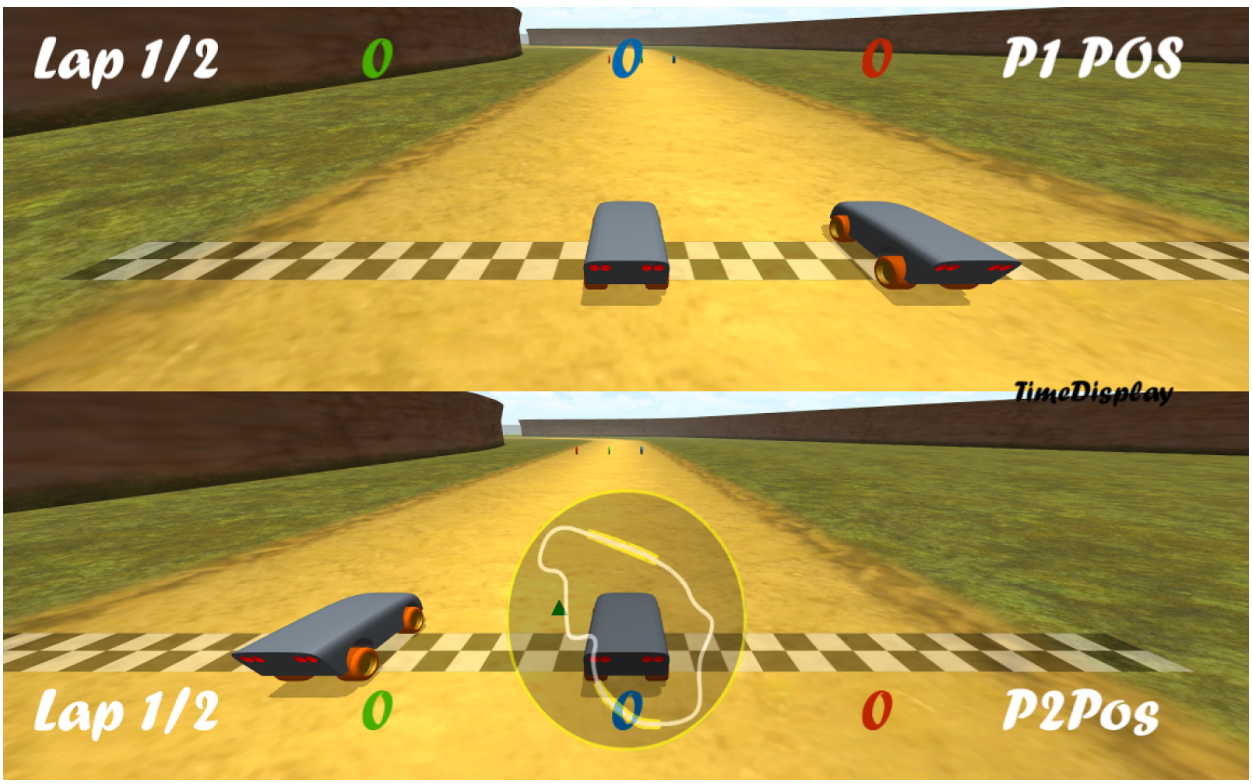
When we pitched the game idea, we only had a paper protype which showcased our game mechanic, but no feeling for our game in digital form in the sense that we knew that the mechanic could potentially be fun if played in a round-based way, but what would happen in real time.

The digital prototype presented a few weeks ago showed that the racing part of the game was progressing well, the car physics impressed many students in the room. We, however, noticed that the game was not fun to play. In chapter 1 we will describe the state of the game in this stage

One week ago, we decided to remodel the game quite fundamentally, by making the race track much shorter and potentially also changing some of the rules of the game. We started by building the new track, and went to participate at the “Ludum Dare 32” game jam in basel, where we worked intensely on the game. This game is presented in chapter 2. In chapter 3 finally we will project activities to be done in the next few weeks.

Chapter 1:

The first digital prototype



In our first digital protoype we had a 3D racetrack, which was completely flat. The track had two zones which the player could either transform into ice or lava sections, and the effect would last a while, but not persist forever. Remember, the game concept is based on the idea, that there are three elements for both car and track, and in order to race fast, the player's car's element and the ground of the current track must match. So an earth car is fast on earth and a lava hovercraft is fast on ice. But an earth car will be slow on ice or lava, as will a lava ship on an earth track. Players collect 3 coins of a certain type to be able to transform their car, or drive through a gate to transform the track.

It showed quickly, that the racetrack, which took 2-3 minutes to complete one lap on was too long. Nobody that we played it with remotely understood the game mechanics, and it was also pretty boring to drive on this simple track.

We took the following important decisions to continue:

- We would change the view to a top-down view, so that driving through a gate would have a visible effect
- The track should be shorter.

An interim prototype lead to another round of important decisions:

- Instead of requiring 3 coins to transform, one would only require one coin.
- Instead of having varying vehicles with varying physics, we would only have one type, which would either be slow or fast depending on if ground and car match.
- We would reduce the number of elements to two, earth and Ice.

With these decisions we went into the Ludum Dare 32 Game Jam. Shortly before, our team member Sandro Ropelato decided to leave the team, and Nambirajan could not join, so that we were only a team of two.

Chapter 2:

Prototype after attending the Ludum Dare Game Jam

We arrived in Basel at Spielhalle Oslo with those decisions in our backpack, and got to work. Our highest priority was to work on the following:

- The driving behavior had to be improved, we kept getting stuck on the track. By removing 2 vehicle types we could work on optimizing one vehicle.
- We would remove one element and test the game after.

Image 2: Track in "Earth"-element, with one player in Ice and the other in Earth. On the left and right, you can see that the left player has an earth coin in stock and the right player has an ice coin in stock. Their relative speeds are shown with red and blue indicators; the left player being at optimal speed (blue) and the right player currently being slow (red)

Both changes resulted in a vastly improved game, so the next step was to work on:

- Determining the relative position of players at all times. Who is in the lead, and who is behind?
- Improving the GUI so that it was much clearer to see what the player can do.
- Also, we simplified the controls, so that you would no longer have to think about which coin you have and which car you can transform into. Either you have the correct coin and can transform, or you don't. Therefore, evolution is now a one button process ;)

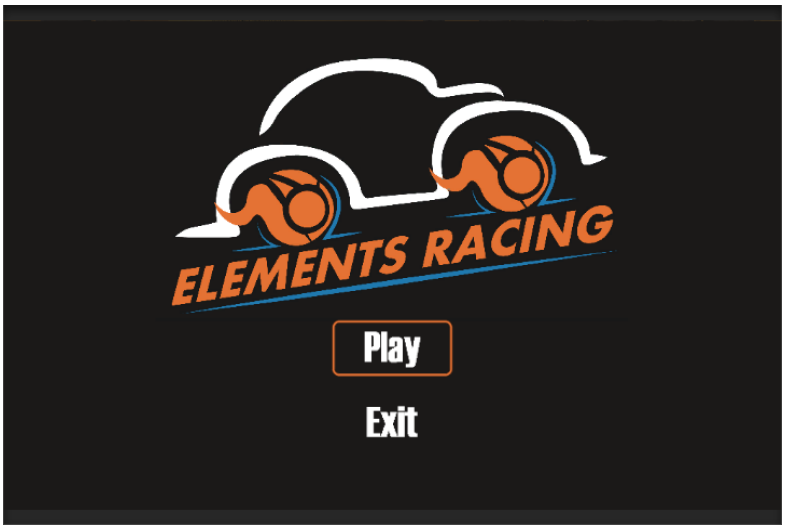


Image 3: Title Screen

Image 4: The track in Ice shape.

The game we now have works like this:

1. On the title screen, select play with the up or down keys, and then press space or the gamepad buttons 1 or 2 to start the game.
2. When racing, you should proceed as follows:
    a. If you drive with a green car on dirt ground OR with a blue car on ice, your speed is optimal, you do not need to optimize.
    b. If you drive with a green car on ice or a blue car on dirt, you can choose
        i. Drive across a switch element which matches your current car color → will make you faster
        ii. Use a coin matching the current track color, thereby adapting your car.

    To take this decision, you should consider the other player. If the other player is currently driving with the optimal car, you should change the track, so that he becomes slow. If the other player is currently slow you should try to evolve your car, so that you become fast and he becomes slow. Both strategies will help you catch up.
    c. Race as fast as you can to achieve three laps first and win.

Controls:

Keyboard controls

	Player 1	Player 2

Steer left right	a, d	left, right
accelerate	w	up
brake	s	down
Evolve (i.e. transform your car)	left shift, left ctrl	right alt, right command

Gamepad Controls (Reference pad is the Thrustmaster Dual Analog 4)

	Player 1	Player 2
Steer left right	analog stick	analog stick
accelerate	joypad button 2	joypad button 2
brake	joypad button 1	joypad button 1
Evolve (i.e. transform your car)	left or right shoulder button 6 or 8	left or right shoulder button 6 or 8

Chapter 3

Next Steps

Before heading into playtesting we need to work on the following, in the following order.

- Optimize the track. It is currently pretty random what the player transforms it into. Positioning of switches and coins is crucial to make this more strategic.
- Add a feature to rubberband the game experience a bit. We rarely had head-to-head races, one player often got lost. Part of that is due to driving behaviour not yet being optimal, the other also to the fact that we are missing an game mechanic to effectively make the first player slower and the second faster.
- Optimize UI and controls in general and fix performance.
- Integrate more pretty car models.
- Add a second race track
- Add again a second type of car.