

PROPOSAL

SMASH KART DRIVING SIMULATOR

Prepared By :
Chai Yong Kang

Table Of Content

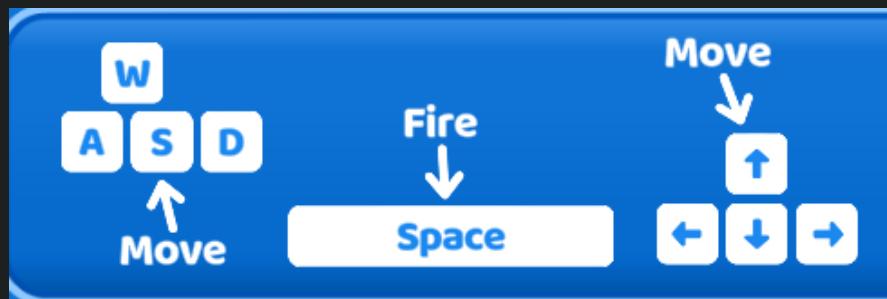
1. Evaluation of Smash Kart
2. URL to Game
3. Improving User Experience
4. Personas
5. User Journey for Improved UX
6. Video Clip URL
7. Photos of Set-Up
8. Design Rationale
9. Research for Controllers
10. Annex

Evaluation of Smash Kart

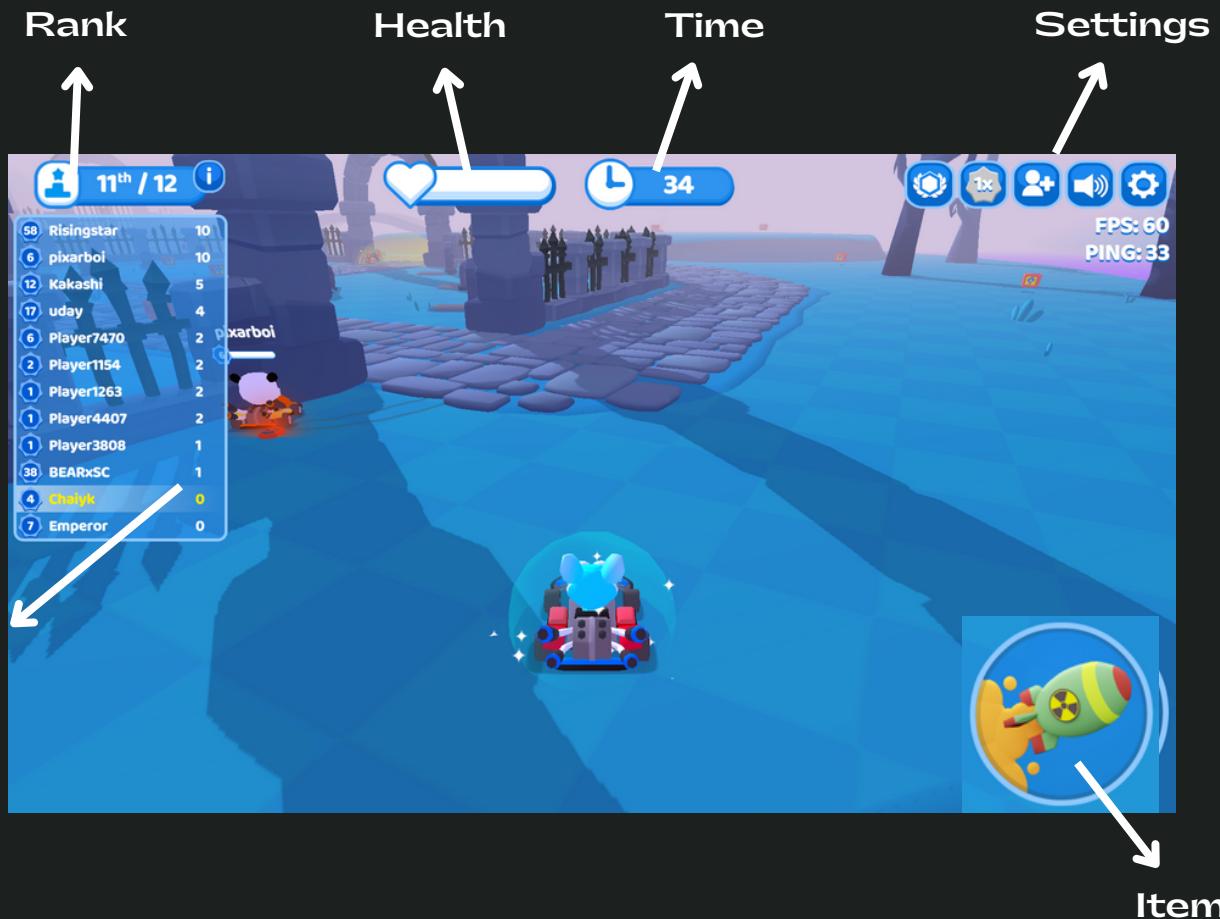
Gameplay Concept



Smash Kart is a simple, straightforward driving game which includes elements such as using items to destroy other enemies kart's where the player will have to drive around in a kart and based on each game mode , the objectives are different. The player have to use WASD or arrow keys to drive and spacebar to use items



The main objective of the game is to destroy other enemy karts and score points based on different game modes .



The player just have to constantly move about ,gather items to use and shoot to defeat other enemies to earn points which increases the player ranks on the leaderboard. Based on the placement on the leaderboard, at the end of the round , the players will receive a different amount of experience points and coins which can be used to purchase cosmetics.



Evaluation of Smash Kart

Strengths of the game

- The controls for the game are simple
- The game is fun and easy to play.
- There are many different game modes to keep things interesting all the time and a large player base where competition will always be tough.
- Suitable for people of any ages to play .

Weakness of the game

- Some items in the game are hard to aim and use
- The UI for the health bar is difficult to tell which affects decision making.
- The gameplay can feel repetitive after a while.

URL to Game

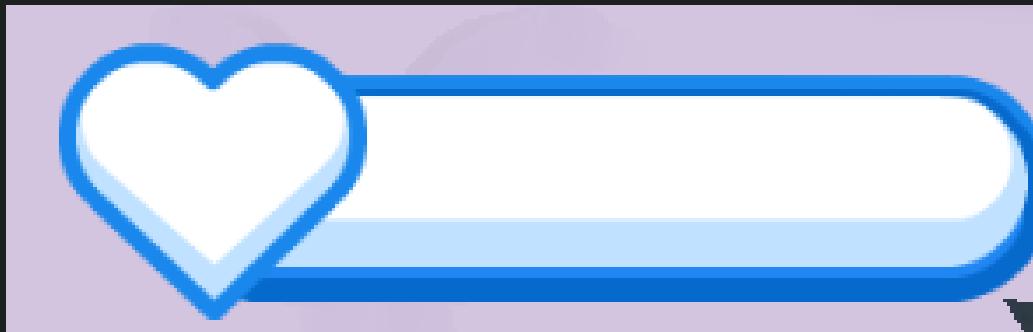
[Smash Kart](#)

Improving User Experience

Improving User Experience

UI Elements

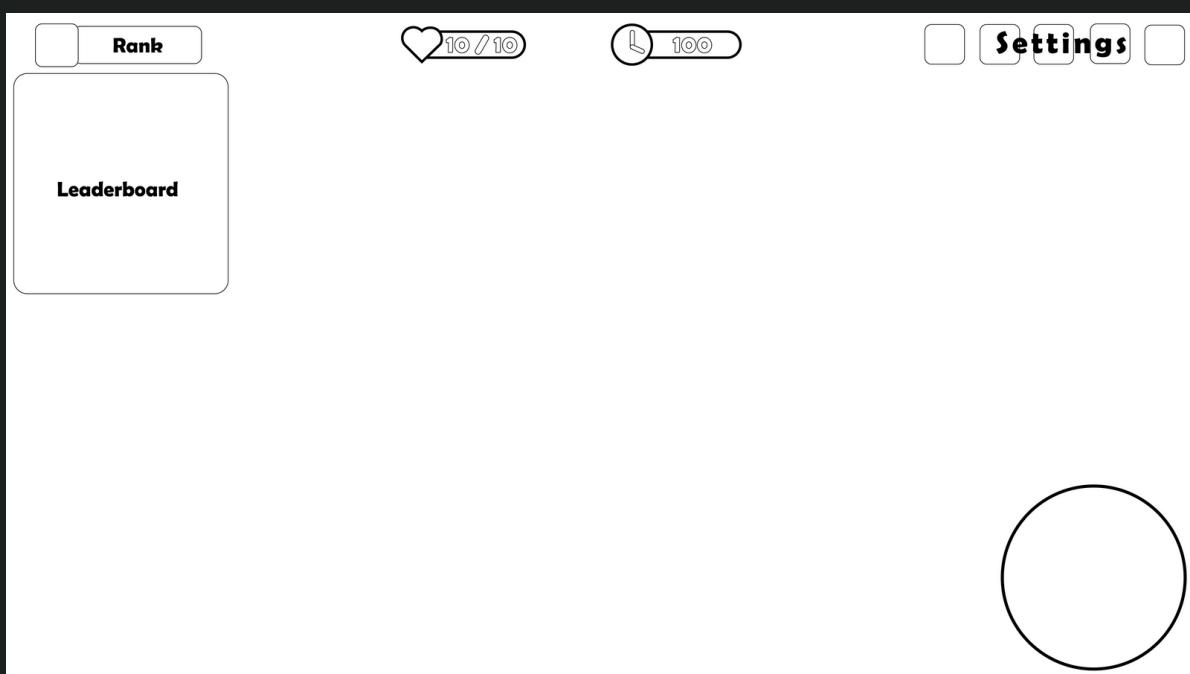
The user interface for the game lacks clarity for a specific part which is the UI for the health bar which makes it hard to know the amount of health left which affects decision making for the player which could result in a win or a loss.



Therefore, numbers would be a great way to show the health bar despite the fact that some items destroy a kart in a singular hit while some require multiple hits but with a numerical health bar, it will be easier to make game winning decisions.



UI Layout

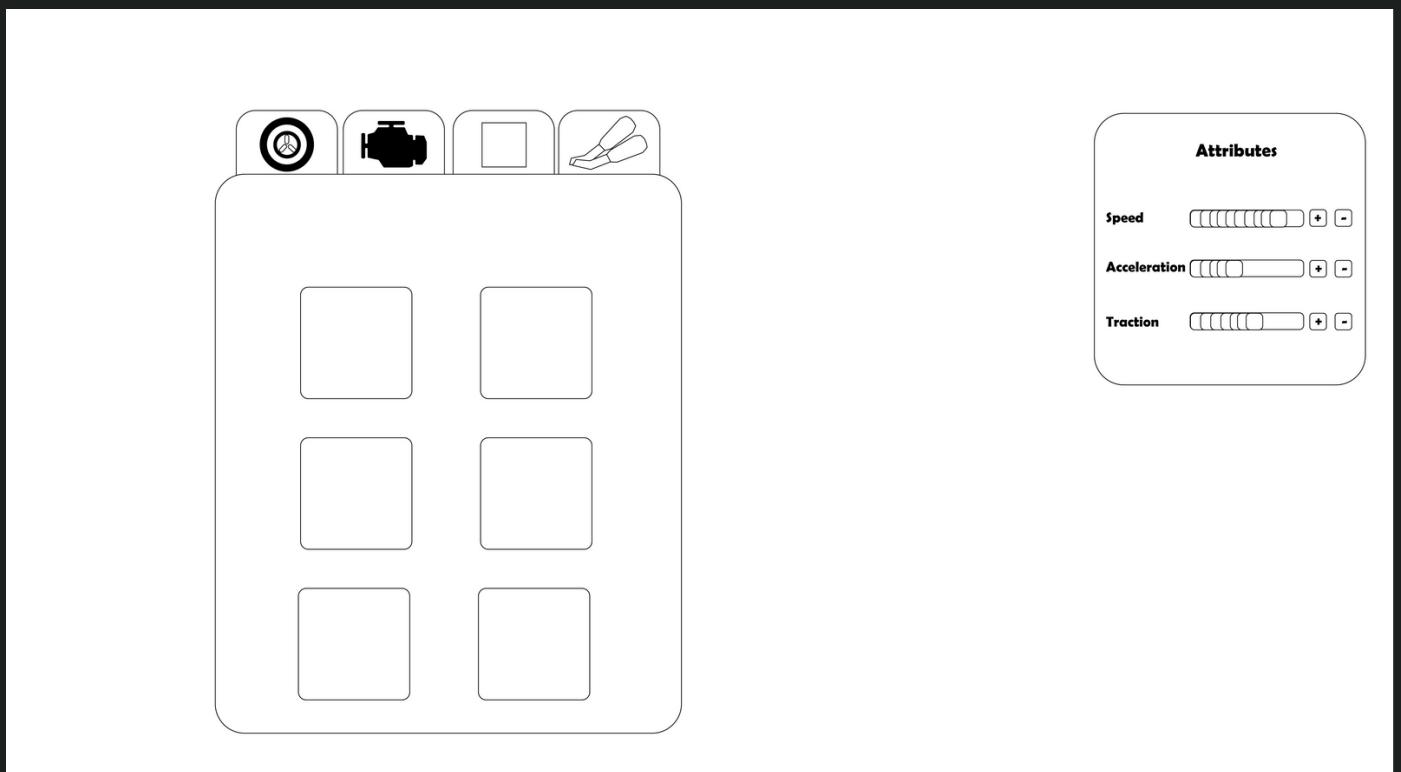


I believe some of the icons can be smaller as due to various screen sizes it may affect the players sight of enemies far away which may result in them losing hence i made some of the UI smaller.

Suggestion for implementation of gameplay components

Customization

More customization for the karts such as customizing the speed and attributes as the gameplay after a while can get repetitive. There can also be more customization for the look of the karts to keep things ecstatically pleasing.



This will allow users to add to different attributes , change their engines which will affect the driving experience.

Personas



Chai Jing Ying

“ Games are getting boring ”

MAJOR

Supply Chain Management

COLLEGE

Singapore University of
Social Science

AGE

21

Bio

Jing Ying is student who enjoys playing video games and likes games with intriguing controllers with games such as Mario karts with the driving mechanisms and Switch Sports with the football straps to kick a ball.

Curiousness



Boredom



Open-Minded



Wants & Needs



Wants a new way
to experience games



Wants something that is easy
to set up and use

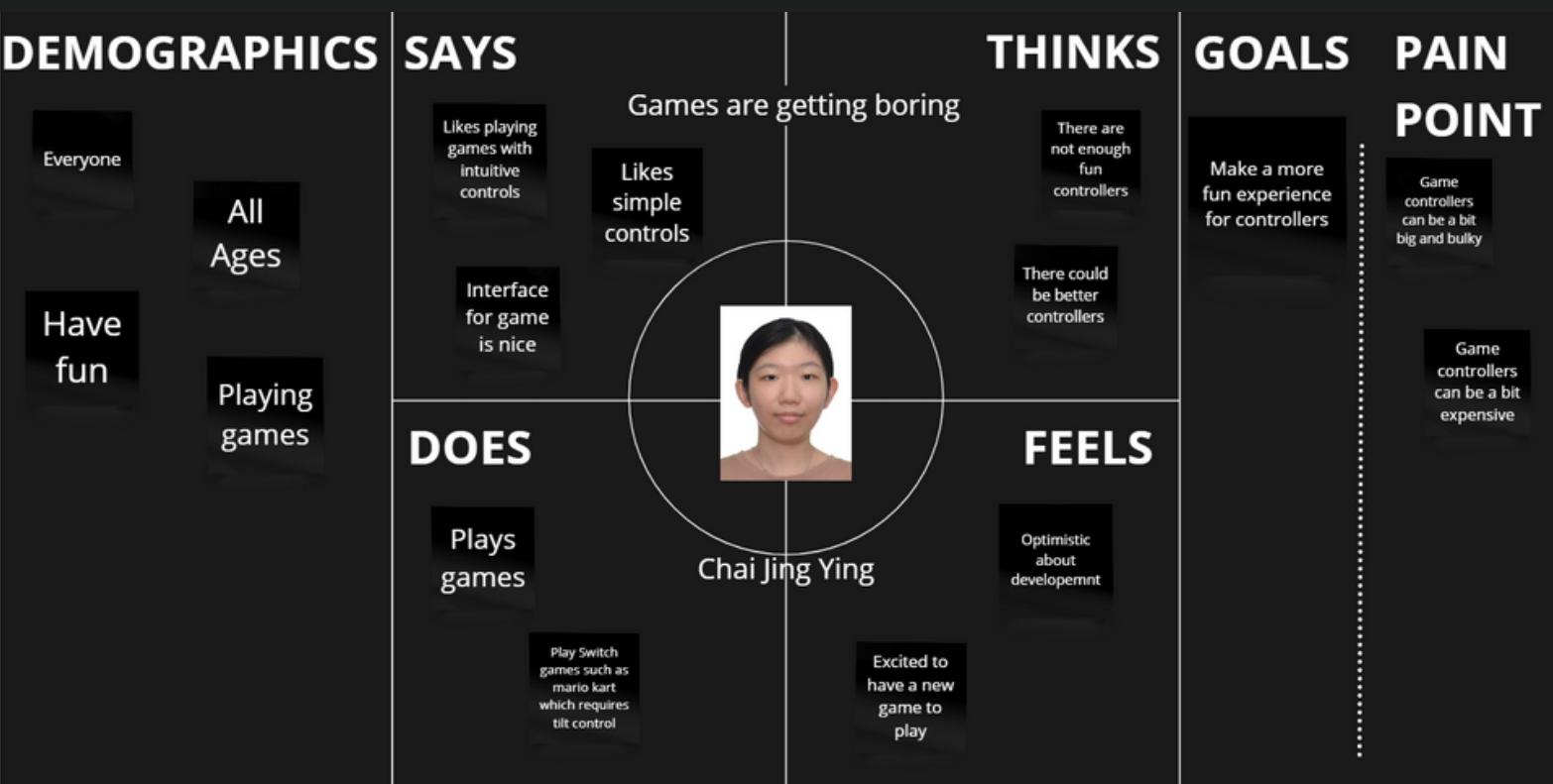


Wants something that can be
compatible with many games

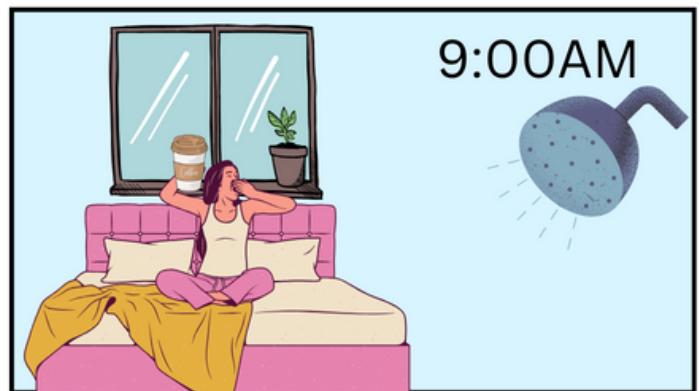
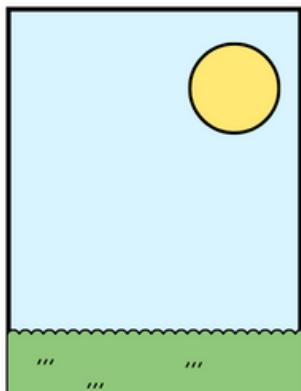
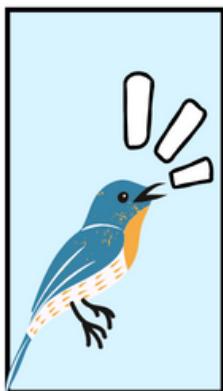
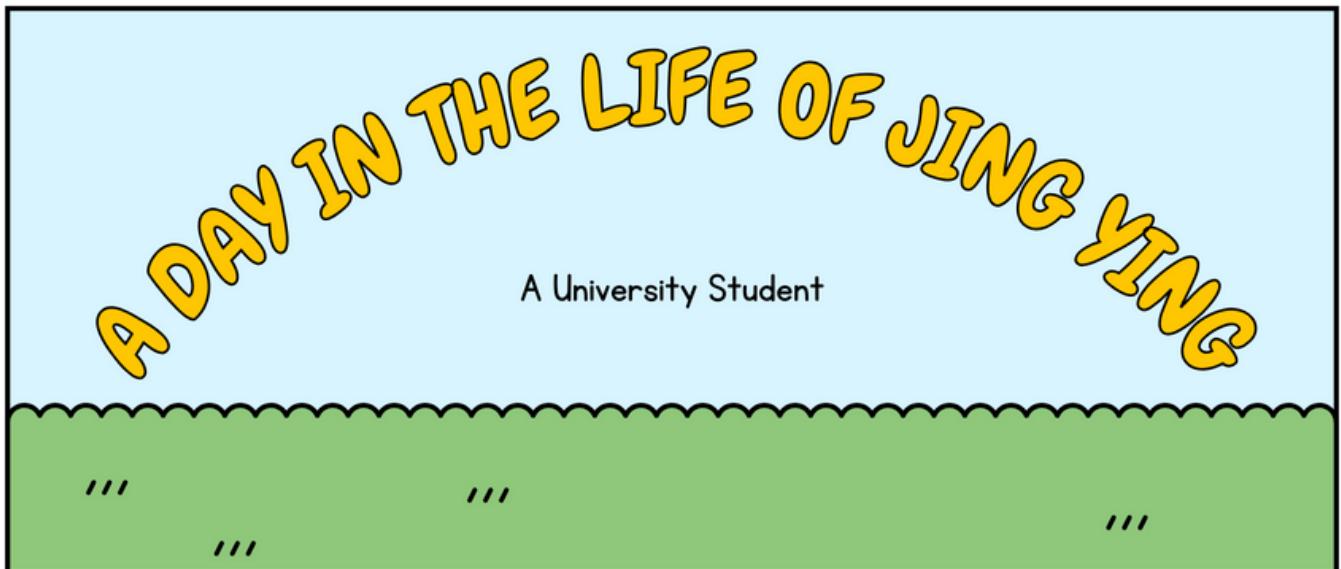
Frustrations

- Bored of normal controls
- Nothing to be excited about

Empathy Maps



Day In the Life

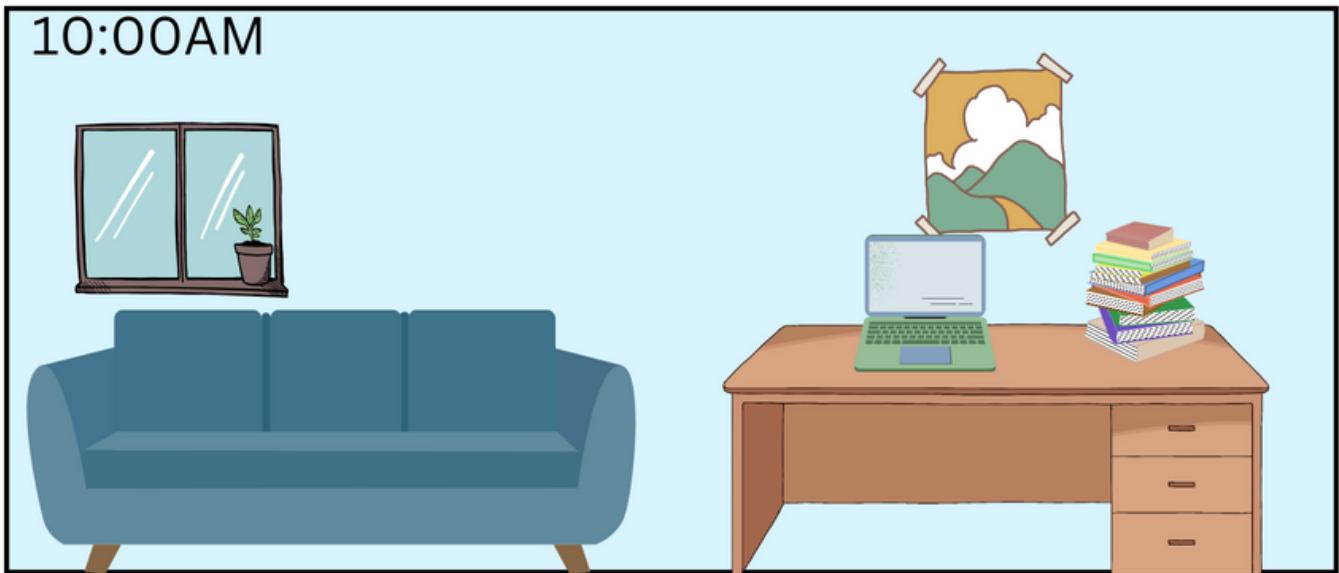


Wake Up ,Prepare for School
and have his morning coffee

Day In the Life

Have online lessons

10:00AM



1:00PM



Eating lunch during her
lesson breaks

2:00PM



Play game to relax

Day In the Life

Continue playing games

5:00PM



8:00PM

She had dinner



9:00PM

Continue
playing
games



12:00AM

Do some
work



2:00AM

Go to
bed



User Journey for Improved UX

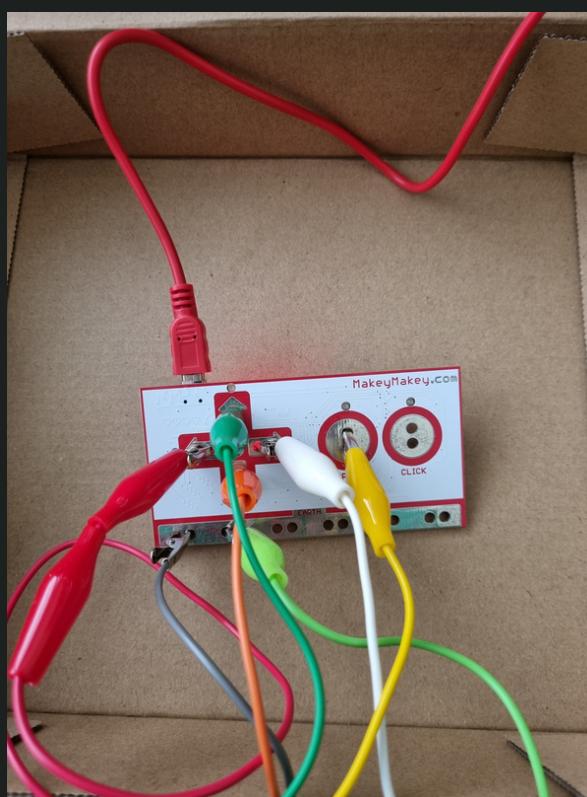
Chai Jing Ying User Journey

Scenario	Awareness	Consideration	Decision	Service	Loyalty
She wants to buy a controller for a driving game called "Smash Karts" on CrazyGames.	She can find it online or at a physical store	She thinks about how big the item will be, how expensive and how functional it is.	She thinks if there are any better options and look at reviews from others	Buys the game controller and sets it up easily for a cheap price	Uses it for a long time and recommends it to others for its price and good functionality
	Positive interested	curious, excited	excited	excited	satisfied, happy

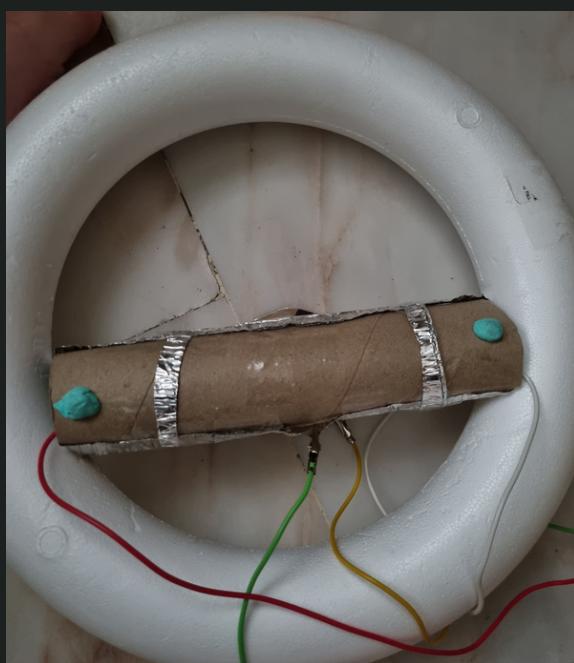
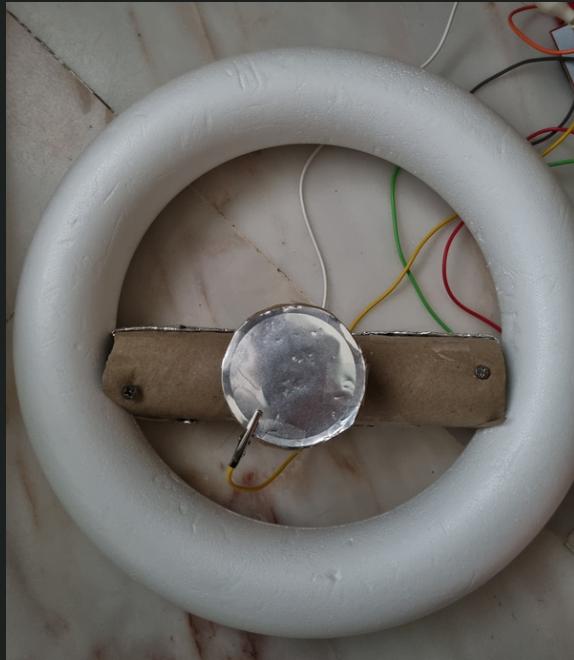
Instruction Manual

Set Up Guide

1. To get started , Start by setting the pedals on the ground.



2. Next, Start to put the alligator clips on. For the steering wheel, place one of the clips onto the aluminum foil wrapped around the center of the wheel and connect it to the earth. Clip one on each end of the steering wheel where there will be a gap on the back of the wheel and clip them to the left and right arrow key. Next, place an alligator clip on each side of the pedals and link the left pedal to the down arrow key and the right pedal to the up arrow key. Lastly place the alligator clip on the button in the center of the wheel.



3. Lastly , place the ring onto your fingers and link the alligator clip onto earth as well. And the final product is done.



Gameplay Guide

The gameplay is quite simple. To accelerate , step on the right pedal or to brake and reverse , step on left the left pedal. To turn left , turn the steering wheel left and to turn right , turn the steering right. To use items in game, press the button on the center of the wheel.



Video Clip of URL

Link for Controller Design

<https://youtu.be/F61MqE9xC1Q>

Link for Controller Showcase

<https://youtu.be/IQTzaFcWQsO>

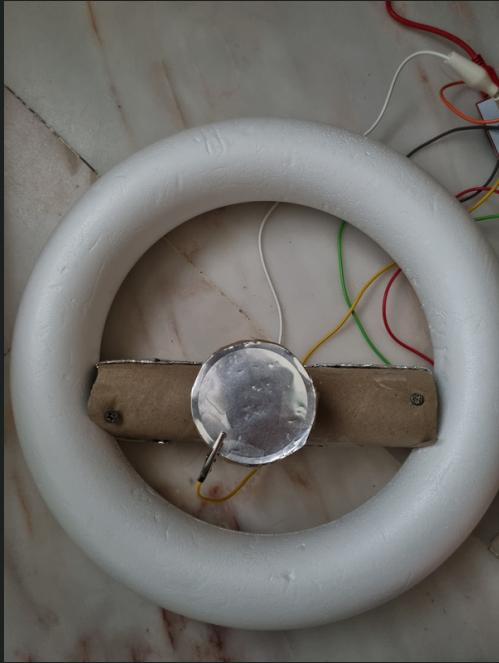
Photos of Set-Up



Photos of Set-Up



Photos of Set-Up



Photos of Set-Up



Design Rationale

I thought it would be a good idea to create my own driving simulator with a steering wheel, a button on the center of the wheel and pedals to complete the driving experience as the game is about driving around and using items to defeat opponents.

I want the user to be able to experience a driving simulator without paying a hefty price for one and also the experience of stepping on a pedal to accelerate is so much more different compared to holding W on a keyboard or turning a steering to go left instead of holding A.

Since the game is all about driving so the player will have to step on the pedals to either accelerate which the right pedal or brake which is the left pedal. The steering wheel will use to turn which will turn in the game and also using a button to activate the item in the game which will be on the steering wheel for easy access to press the button.



Design Rationale

The pedals are made with a hole puncher connected with a base as hole punchers have a spring to retract but can also be used to stepped and held down.

The steering wheel is made with thick styrofoam wheel to provide the firm grip of a steering wheel .The center is made with a hand towel roll as it is a circular pipe so the center is made with two nails one on each end to complete a circuit with a metal ball rolling about.

The button is made with a keyboard switch to reproduce the feel of a horn but at the same time also have allow access to easily press the button.



Research for Controllers

Mario Kart Arcade Game



This arcade game uses two pedals as well for acceleration and brake which is where my inspiration for my idea came from. The game allow users to take images of themselves from the camera to make the gameplay more personalized as above their karts will be the image they have chosen. The gameplay is more of a race so the player have to reach the end first to win and also use items to slow down other players or completely stall them. The

set up has an immersive sound system with up beat music playing in the background. However ,when playing the game , the button to hit to use items is difficult to access in the spur of a moment which can decide in their fate whether they lose or win as the user will have to stretch one of their arms away from the steering wheel and with the resistance of the steering wheel could result in making a wrong turn.

However, overall it is a great design which would be hard to implement into my own controller with the limited time, skill and budget.

Research for Controllers

Complete Driving Simulator



This is a complete driving set up meant for racing games. It is completed with a clutch stick with a clutch on the pedals which allows the player to adjust their gears of the car and also is different the Mario Kart pedals . The experience is also easily accessible for people with the financial means as a full set up is expensive. The steering wheel also has resistance hence the set up perfectly resembles a real life car.

However, to be able to do something like would require a lot of money and time to finish. It would also be too bulky to bring around so that the player can experience a driving game anytime, anywhere with an internet connection.

Ahnex

Makey Makey Tilt Sensor

<https://www.youtube.com/watch?v=OhML8ihstyO>

Mario Kart Arcade Game

<https://thearcadepeople.com/product/mario-kart-arcade-twin/>

Complete Driving Set Up

<https://www.team-bhp.com/forum/diy-do-yourself/246673-diy-my-racing-simulator-build.html>