Prepared For:

Ms Dai



FridayNight Funkin'

PROPOSAL

Prepared by: Charlene Ngiam

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INTRODUCTION

FridayNight Funkin'

As a User Experience designer, I am responsible for creating web applications that enhance a customer's experience with a brand and facilitate an enjoyable experience using various forms of digital and web media.

In this report, my main focus will be on all aspects of a product's development, including design, usability and function of the game, FridayNight Funkin'. I will be sharing the improvements that can be made in this game. I have also included a detailed information on the problem identification by researching, analysis and solutions that lead to the development of FridayNight Funkin'.

ABOUT

FridayNight Funkin'



FRIDAYNIGHT FUNKIN' ORIGIN

Friday Night Funkin' (stylized as FRIDAY NIGHT FUNKIN' and often abbreviated to FNF) is an open-source donationware rhythm game first released in 2020 for a game jam.

The game was developed by a team of four Newgrounds users, Cameron "ninjamuffin99" Taylor, David "PhantomArcade" Brown, Isaac "Kawai Sprite" Garcia, and evilsk8r. The game shares some gameplay features with Dance Dance Revolution and PaRappa the Rapper and borrows aesthetic influences from Flash games. The game has been credited with driving users back to Newgrounds, a site whose popularity peaked in the early 2000s.

The game mainly revolves around the player character, Boyfriend, who must defeat a variety of characters in singing and rapping contests in order to continue dating his love interest, Girlfriend. Gameplay revolves around hitting notes with timed inputs while avoiding running out of health for the duration of the song

GAME URL:

https://www.crazygames.com/game/friday-night-funkin



FridayNight Funkin'



GAMEPLAY:

Friday Night Funkin' is a rhythm game in which the player controls a character called Boyfriend, who must defeat a series of opponents in order to continue dating his significant other, Girlfriend. The player must pass multiple levels, referred to as "weeks" in-game, containing three songs each.

Each week, the player faces a different opponent, though some deviate in structure from this via the inclusion of multiple opponents. During gameplay, the opponent will sing a pattern of notes (represented as arrows) which the player must then mirror by using the arrow keys or the W, A, S, and D keys. Some songs introduce more complicated patterns, with the player's pattern sometimes varying from the opponent's or both singers engaging in a duet.

FridayNight Funkin'



GAMEPLAY:

For each week, the player has the option to select one of three difficulties: Easy, Normal, or Hard. As the difficulty increases, the speed of incoming arrows increases, and the patterns of arrows become more complex. The player's high score for each week on each difficulty is tracked and shown in the top corner of the week selection screen. The game contains two different modes of play: a story campaign in which songs are played linearly and a "free play" mode which allows for free selection of any of the game's music tracks.

FridayNight Funkin'

GAME UI/SCREENSHOTS:



Image shown: Start menu / game menu

 Players uses WS/Up or down arrow keys to choose between the choices.

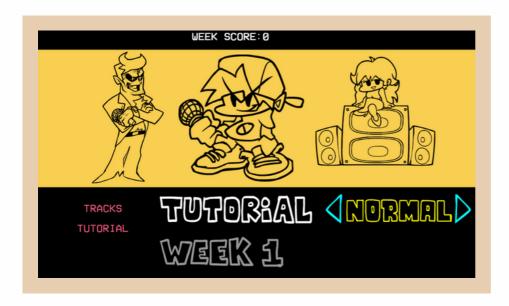


Image shown: Start game page (image shown is under story mode > after player enter the story mode)

- Players uses WS/Up or down arrow keys to choose between the choices.
- Players uses AD/Left or Right arrow keys to choose between the mode for easy/normal/hard



FridayNight Funkin'

GAME UI/SCREENSHOTS:



Image shown: Start game page (image shown is under freeplay > after player enter the freeplay)

- Players uses WS/Up or down arrow keys to choose between the choices.
- Players uses
 AD/Left or Right
 arrow keys to
 choose between
 the mode for
 easy/normal/hard

FridayNight Funkin'

GAME UI/SCREENSHOTS:



Image shown: gameplay page

- Players must mirror by using the arrow keys or the W, A, S, and D keys
- Player mirror the controls based on what the game screen display

For example, when this purple arrow reaches the top arrow (grey part), player have to click the key (in this case, A or arrow left key) to get the "point"

For example, when this blue arrow reaches the top arrow (grey part), player have to click the key (in this case, S or arrow down key) to get the "point".

When there is this extra part that comes below the arrow shown in screen (white circled in image) player will have to long press the key and release when the extra part loads off

CJ.Co



FridayNight Funkin'

GAME UI/SCREENSHOTS:

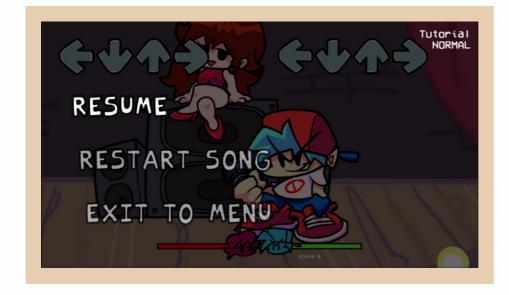


Image shown:

Pause menu page

- Players press the "enter" key to pause the game
- Players navigate between the choices using the up/down arrow keys
- Players press the enter key to select their choice
- In this pause menu, player can resume game, restart game/song, exit to the menu

FridayNight Funkin'

GAME UI/SCREENSHOTS:



Image shown: Game controls

- Players press WASD or arrow keys to play
- Players press enter to select/start game
- Players press the ESC to go back
- Players uses WASD or arrow keys to navigate between choices
- 0 to mute
- +/- to increase
 /decrease volume

FridayNight Funkin'

HOW TO IMPROVE USER EXPERIENCE: CONTROLS

In this proposal, I will be focusing mainly on the key controls of the game which is

(original controls in game)

- WASD / arrow keys
- enter to select/start game/pause game
- esc to go back

Improvements to improve (for computer keys) the keys can be modified as I felt that usually

- To pause game, you usually press ESC not enter, so it can get quite confusing for players. I feel that we can modify it to be ESC, so it can enhance user experience.
- To select, you usually don't press enter, but left click on mouse.
 I feel that we can modify it to be left click, instead of pressing enter to select the choices.

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HOW TO IMPROVE USER EXPERIENCE: UI PART



Red circled part shows the player's scoring

For this particular UI, I felt that it was too small to be visible. The font color white was not standing out as well. It actually took me awhile to realize there was actually a scoring below the health bar. So initially I was confuse how does one mis-click affect my health and scoring.

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HOW TO IMPROVE USER EXPERIENCE:
UI PART (MODIFY SUGGESTIONS, AFTER)



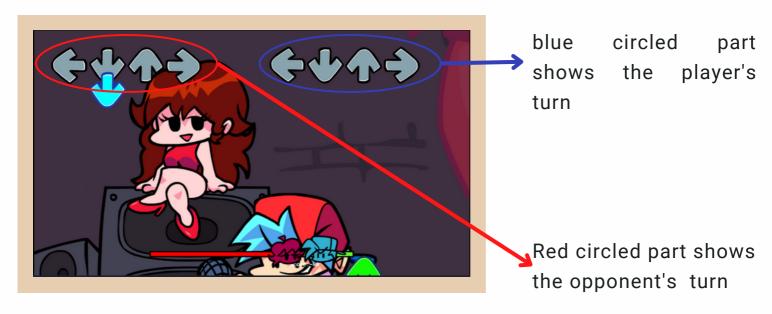
Red circled part shows the player's scoring (after modifying)

Therefore, I felt that we can improve this UI by making it larger, and change the font color to be more suited in this game. So that player can easily notice the scoring and see their own score through the game. This can reduce the chances of player getting confused, which can improve the user experience of player.

In the image shown, it is an example of my suggestion on how we can make the scoring more visible

FridayNight Funkin'

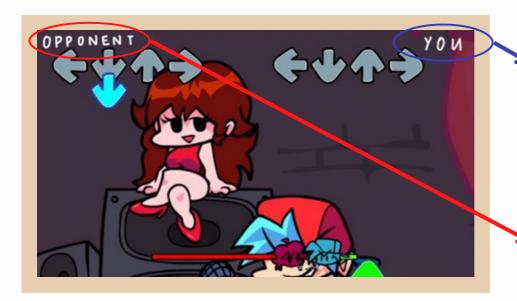
HOW TO IMPROVE USER EXPERIENCE: UI PART



For this particular UI, I felt that it was kind of confusing at the start, as I didn't know which side I should be following. So initially, I was doing both sides but not sure why my health bar kept decreasing. It was only afterwards when I realize that I'm only suppose to follow the right side (blue circled) and that the left side (red circled) is for my opponent.

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HOW TO IMPROVE USER EXPERIENCE: UI PART (MODIFY SUGGESTIONS, AFTER)



blue circled part shows "you" which means it is the player's side

Red circled part shows the opponent's name

Hence, I felt that we can improve this UI by adding words such as "your turn", "you" or "your side" towards player's side. As well as adding words such as "opponent" or "opponent's name" towards the opponent's side, so that it won't confuse the player of like which side they should follow

The image shown is an example of my suggestion, where both sides are added "you" and "opponent"

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HOW TO IMPROVE USER EXPERIENCE: CREATING A DANCING BOARD MACHINE (CONTROLLER)

To improve the user experience of players, I will be creating a dancing board to enhance the experience. Players will be able to dance on the dancing board while playing the game.

This is inspired by arcade's dance dance revolution. It is a game in arcade using the dancing board to play. Players step on the dancing board based on what is showing on the screen.

I will be incorporating Makey Makey's controller, so that I can connect to the keyboard keys. Makey Makey is a controller that I can connect to the computer so that the computer will think I am pressing the key even though I am pressing the object. I will be going into details(research) about the controller and the dancing board on the research content of the proposal.

Sizing:

It will be a 90cm X 90cm dancing board



FridayNight Funkin' CONTROLLER INITIAL SKETCHES:

The image shown is my sketch for my dancing board.

This is the up arrow key, which makey makey will think I am pressing the up arrow key when i step on the dancing board

This is the left arrow which key, makey will makey think I am pressing the left arrow key when i step on the dancing board

This is the right arrow key, which makey makev will think I am pressing the right arrow key when i step on the dancing board

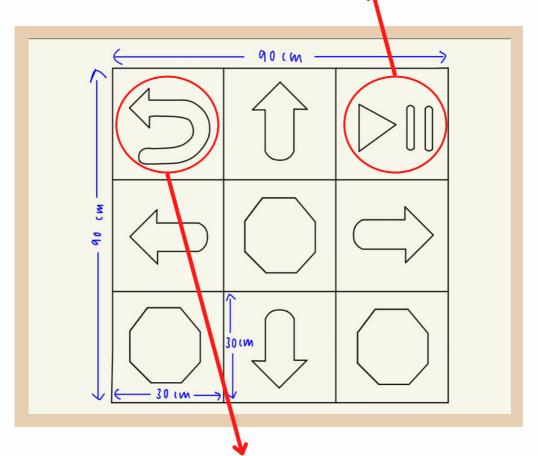
This is the down arrow key, which makey makey will think I am pressing the down arrow key when i step on the dancing board



FridayNight Funkin' CONTROLLER INITIAL SKETCHES:

The image shown is my sketch for my dancing board.

This to represent the start button, which makey makey will think I am pressing the start key when i step on the dancing board. I made the UI as a play and pause icon as I want it to symbolize the purpose of player stepping on this, which is pausing the game, starting the game, and selecting a choice.

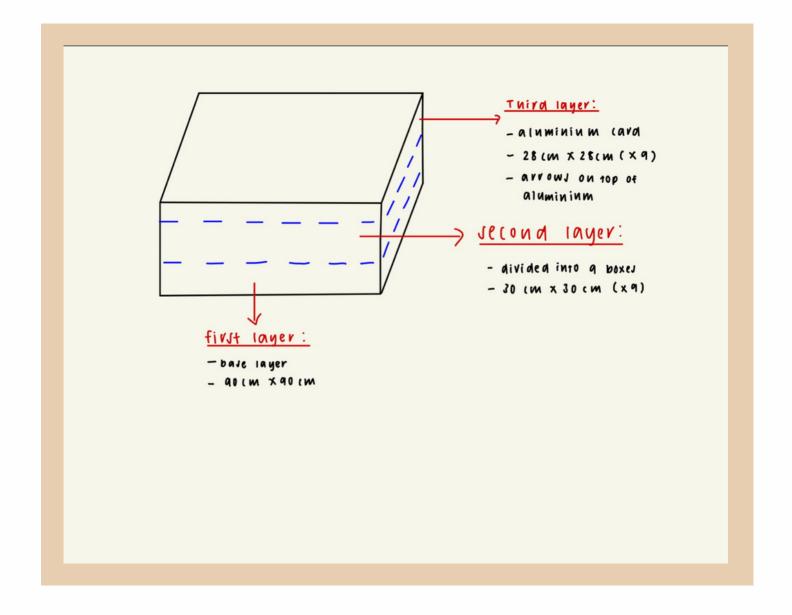


This to represent the back button, which makey makey will think I am pressing the ESC key when i step on the dancing board. I made the UI as a return back icon as I want it to symbolize the purpose of player stepping on this, which is to go back



FridayNight Funkin' CONTROLLER INITIAL SKETCHES:

Image shown is the layers sketch I planned to build my dancing board

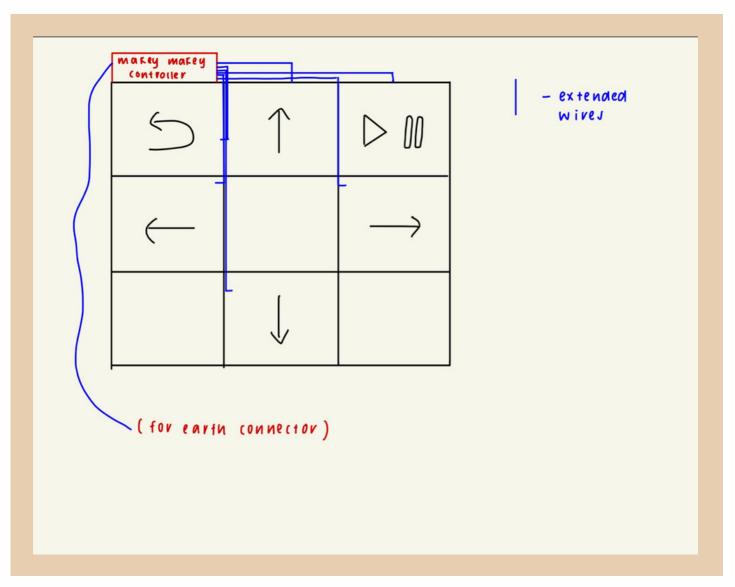






FridayNight Funkin' CONTROLLER INITIAL SKETCHES:

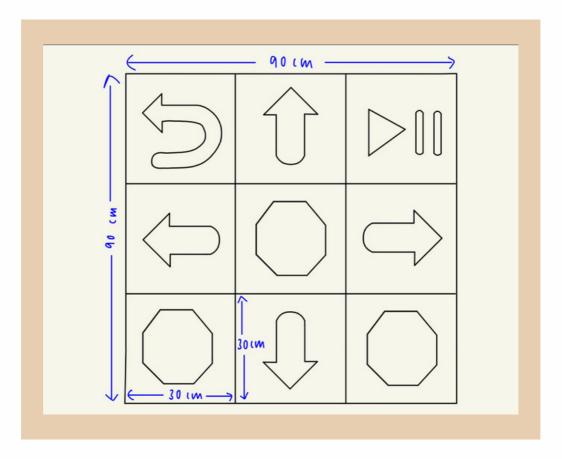
Image shown is the extended wires and how I planned to build my dancing board. As I did not want my players to be stepping on wires, I am planning to insert the wires in-between the 30x30cm board. Extended wires are needed as the makey makey's one is not long enough, also so I can insert them inbetween the stepping board





DESIGN RATIONALE

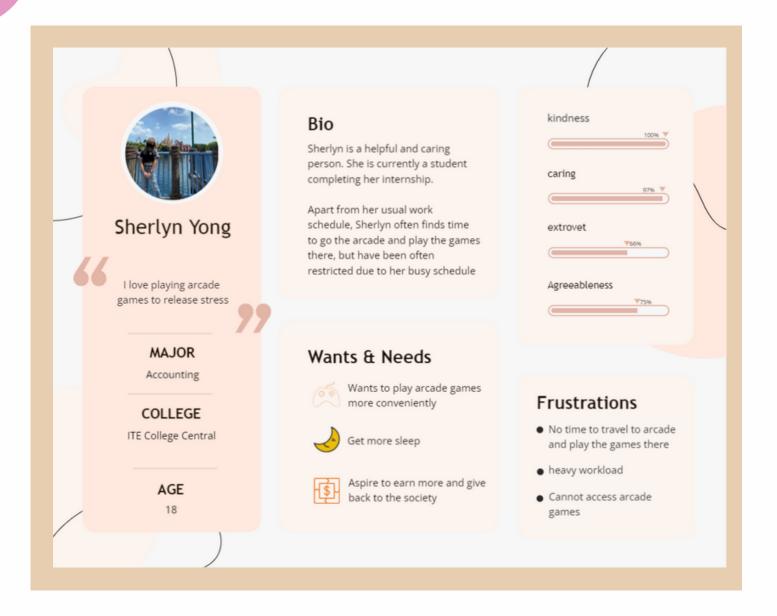
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As I mentioned above why I decided the use the different icons on the dancing board. My goal is to not let players get confused when they play, hence the icons I decided to use are mainly related to it's purpose

PERSONA

FridayNight Funkin'



EMPATHY MAP

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USER JOURNEY

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User Journey Map

		CONSIDERATION	DECISION	RETENTION
MOTIVATION	Looking for arcade games	To play dancing board game at home (at her convenience)	Play dancing board	can play at home
GOAL	don't need to travel to arcades to play/use dance machine board	considering convenient ways to play the dancing board from arcades	Manage to play the dancing board game from arcade at her own convenience	easy and convenient to play similar arcade dancing games
INTERACTION	Find a dancing board to play dancing games at home	wanting to play the game whenever she wants, without the need to travel	Plays the dancing board game at her home	to play and relief stress whenever she wants at her home
OPPORTUNITIES	Being able to play more dance games using dancing board	have chances to play the dancing board game	play as many times as she wants, without the need to travel	sense of achievement being able to have similar experience playing at her home, instead of travelling to arcades to play

PHYSICAL CONTROLLER

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As I mentioned on building a controller to enhance the user experience of the player. In this part of the proposal content, I will be showing the instructions on how to use the dancing board, a short demo video of how it works, my design rationale, and my research findings which led me to building it the dancing board this particular way. I will also be showing images/photos of my process when making the dancing board, as well as the final outcome.

INSTRUCTIONS

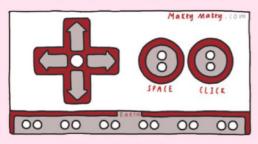
FridayNight Funkin'



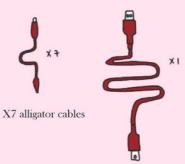
INSTRUCTIONS MENU

What's in the dancing board?

- X1 dancing board with 3 extended wires
- X1 extended wire (for earth)
- X1 instructions menu
- X1 makey makey controller set from makey makey's controller, you need:



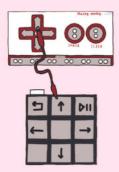
Makey makey board



X1 USB cord

How to set up?

- 1. Head to makey makey's remap website page to remap the space and click button to ESC and enter.
- 2. connect the makey makey board to your computer using the USB cord
- 3. layout the dancing board, connect the up arrow by using the alligator cable, clip one side to the dancing board (up arrow aluminum side), and another side to the makey makey's up arrow. (see below for reference)

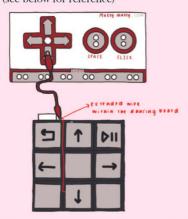




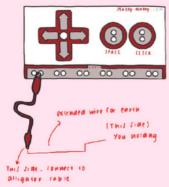
INSTRUCTIONS

FridayNight Funkin'

- 4. Repeat step 3 for the back button and play/pause button.
- 5. For the left right button, and the down arrow button, there are extended wires connected to them.
- For these 3, connect your alligator cables to the extended wire will do, you don't have to clip it towards the aluminium.
- The other side of the alligator cable remains the same, which is putting it at the makey makey board. (see below for reference)

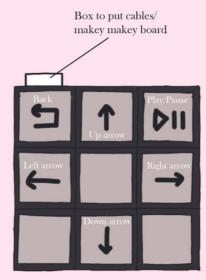


6. Last but not least, use the extended wire for earth, connect one side of alligator cable to the makey makey board's earth. Connect the another side to one side of the extended wire. Hold the other side of the extended wire to your hand (see below for reference)



How to play?

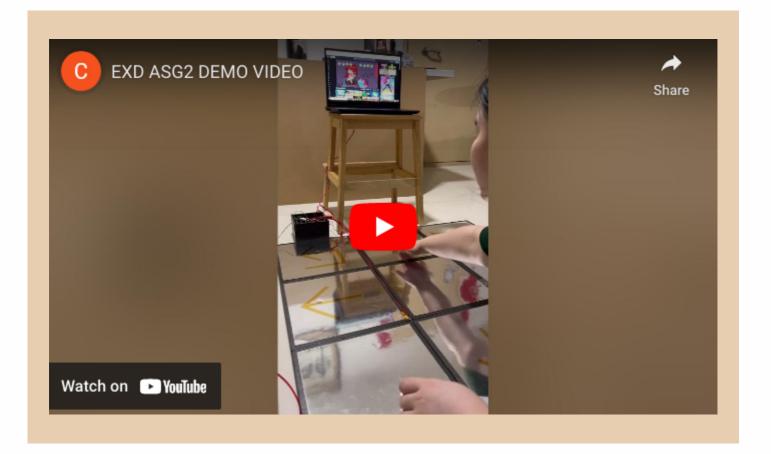
- 1. Step on up down left right arrows to play the game
- 2. To start the game, step the play/pause
- 3. To choose a selection, step the play/pause
- 4. To go back, step the back button
- 5. To navigate between the choices, step the arrow buttons.





DEMO VIDEO

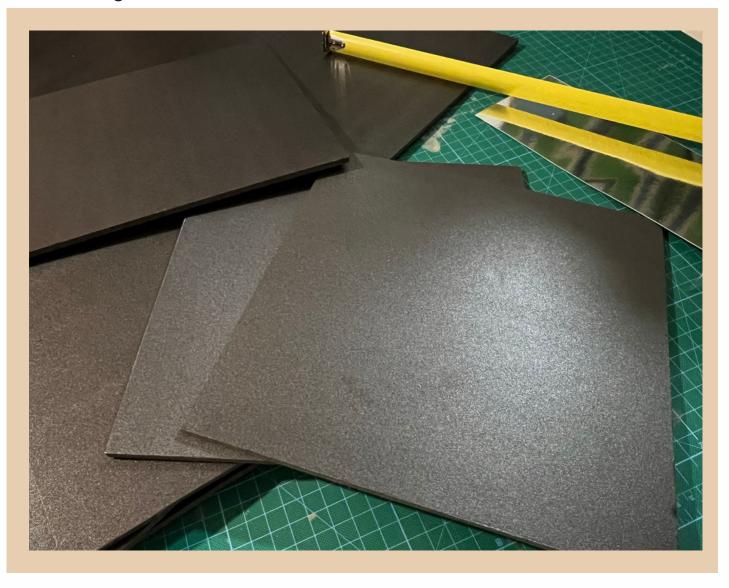
FridayNight Funkin'



Video Link: https://youtu.be/wFJJGOQDKoY

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Some progress photos of creating the dancing board Creating the 30X30 cm board



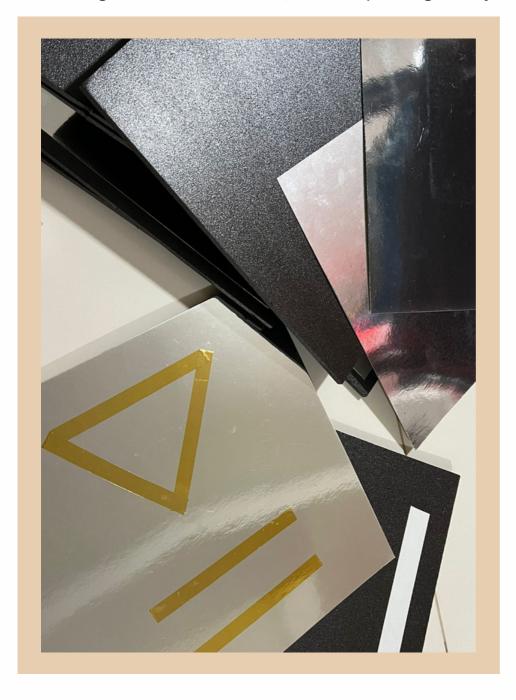
FridayNight Funkin'

Cutting the aluminum card to 28X28 cm



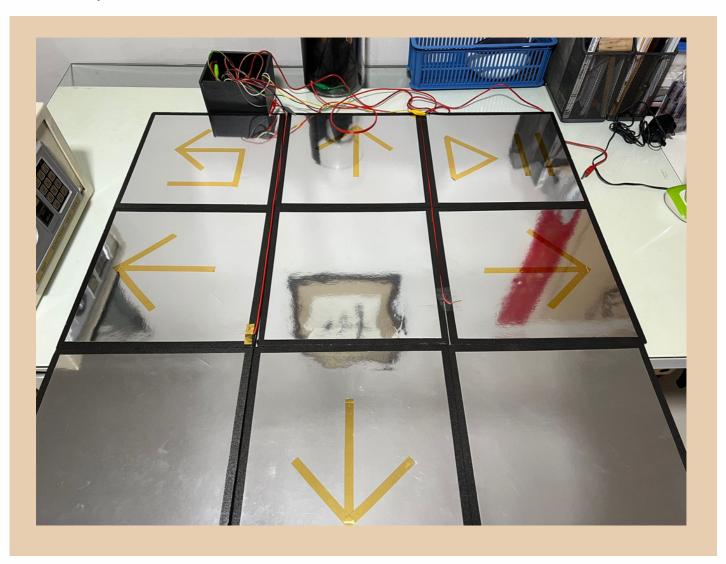
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Doing out the arrows/UI, before putting everything together



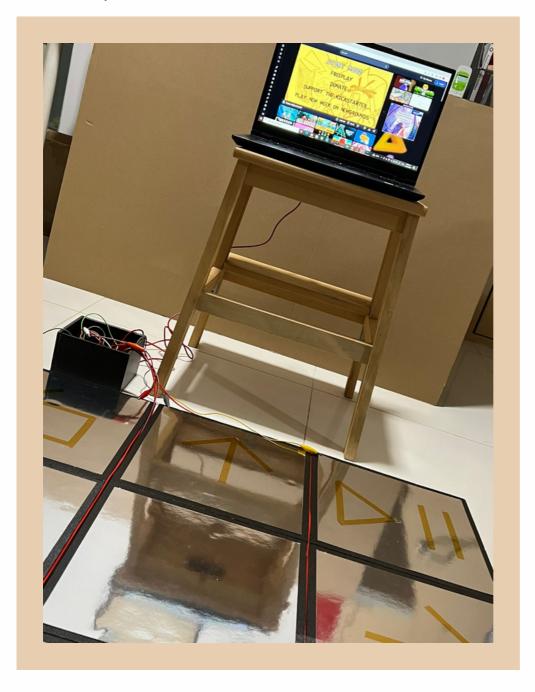
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Final product



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Final product



Set up with computer





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Final product



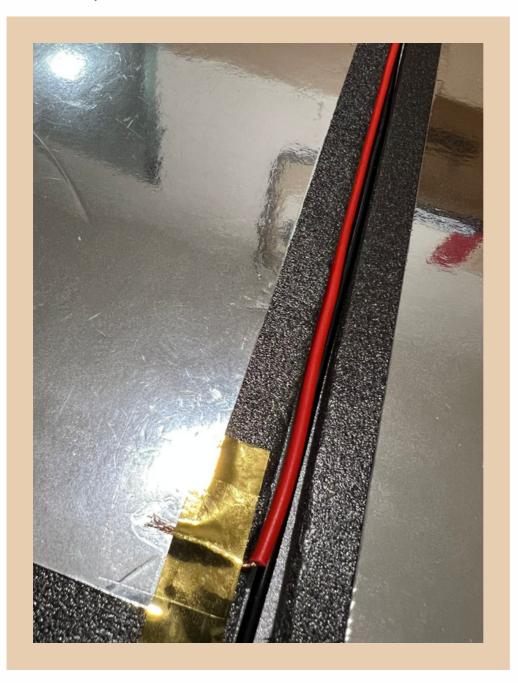
Close up look on the arrow





FridayNight Funkin'

Final product

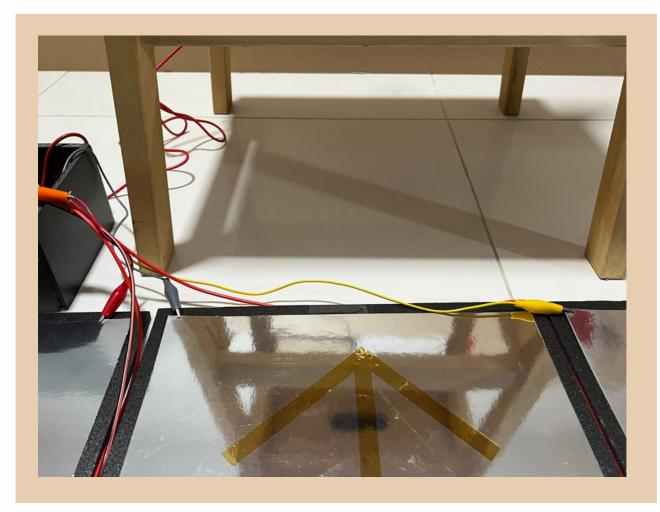


Close up look on the extended wires in the dancing board. Placed it in-between the 30X30cm board so that player won't step on it



FridayNight Funkin'

Final product



Close-up look at the top part of the dancing board. For alligator cables that are long enough, it is connect straight using the alligator cable without extended wires

Adding on, earth is connected with an extended wire so that player can move and step around freely, without getting restricted by the alligator cable's length

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The most similar game to this will be arcade's dance dance revolution.

What is dance dance revolution?

Dance Dance Revolution (DDR) is a music video game series produced by Konami. Introduced in Japan in 1998 as part of the Bemani series, and released in North America and Europe in 1999, Dance Dance Revolution is the pioneering series of the rhythm and dance genre in video games. Players stand on a "dance platform" or stage and hit colored arrows laid out in a cross with their feet to musical and visual cues. Players are judged by how well they time their dance to the patterns presented to them and are allowed to choose more music to play to if they receive a passing score.

Dance Dance Revolution has been met with critical acclaim for its originality and stamina in the video game market, as well as popularizing the use of videogames as a medium for fitness and exercise. There have been dozens of arcade-based releases across several countries and hundreds of home video game console releases, promoting a music library of original songs produced by Konami's in-house artists and an eclectic set of licensed music from many different genres. The game is also known for its passionate fanbase, as well as its growing

competitive tournament scene.



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Dance dance revolution's gameplay

The core gameplay involves the player stepping their feet to correspond with the arrows that appear on the screen and the beat. During normal gameplay, arrows scroll upwards from the bottom of the screen and pass over a set of stationary arrows near the top (referred to as the "guide arrows" or "receptors", officially known as the Step Zone). When the scrolling arrows overlap the stationary ones, the player must step on the corresponding arrows on the dance platform, and the player has been given a judgment for their accuracy of every streaked note (From highest to lowest: Marvelous, Perfect, Great, Good, Almost, Miss).

Additional arrow types were added in later mixes. Freeze Arrows, introduced in MAX, are long green arrows that must be held down until they completely travel through the Step Zone. Each of these arrows awards an "O.K.!" if successfully pressed or an "N.G." when the arrow is released too quickly. An "N.G." decreases the life bar and, starting with X, also breaks any existing combo. X also introduced Shock Arrows, walls of arrows with lightning effects that must be avoided, which will award an "O.K.!" if successfully avoided or an "N.G." if any of the dancer's panels are stepped on. An "N.G." for shock arrows has the same consequences found with freeze arrows, but hitting a shock arrow additionally hides future steps for a short period. Successfully hitting the arrows in time with the music fills the "Dance Gauge", or life bar, while failure to do so drains it. If the Dance Gauge is fully exhausted during gameplay, the player will fail the song, and the game will be over.

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Dance dance revolution's gameplay

Otherwise, the player is taken to the Results Screen, which rates the player's performance with a letter grade and a numerical score, among other statistics. The player may then be given a chance to play again, depending on the settings of the particular machine. The default limit is three songs, though operators can set the limit between one and five.

Aside from play style Single, Dance Dance Revolution provides two other play styles: Versus, where two players can play Single simultaneously, and Double, where one player uses all eight panels. Before the 2013 release of Dance Dance Revolution, some games offer additional modes, such as Course mode (players must play a set of songs back-to-back) and Battle mode (two players compete with a tug-of-war life bar by sending distracting modifiers to each other). Earlier versions also have Couple/Unison Mode, where two players must cooperate to play the song. Course Mode was reintroduced to the series starting with A20.



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Dancing board in the market:

There are different types of dancing board in the market. The price range from \$40+ (lowest) to \$300+ (highest). The main difference between the prices are the materials used. The lower priced one are usually similar to a floor matt. However, the higher priced one are similar to the ones in arcades. where player can step on the board, and the board goes down. When player doesn't step the board, the board goes back the the default height.







Dance Mat Dancing Step

Dancing Mat Dance Pad Dancer

Blanket Equipment

\$41.25 + tax (US\$30.42 + tax) eBay - 3cdeal_sfc +Delivery



Dance mat LTEK EX PRO X

\$353.07 \$391.66(€247.00)

L-TEK

tanzillah an coca



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Dancing board in the market (materials used):

- uses polycarbonate as it is more resistant
- uses metal as metals are pretty strong
- · Avoid acrylic as it breaks over the multiple usages
- Popular arcade games such as Dance Dance Revolution, In the Groove, Pump It Up, and StepManiaX use large steel dance platforms connected to the arcade cabinet
- whereas versions for home consoles usually use smaller plastic pads (flexible ones). These home pads are specifically made for systems such as the GameCube, Wii, PlayStation and Xbox, but can also be used in computer simulators such as StepMania through the use of special adapters.

Dancing board sizing:

 Most dance pads are divided into a 3×3 matrix of square panels for the player to stand on

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Types of makey makey controller:

- Makey Makey GO
- Makey Makey Classic

The one used in this project is Makey Makey Classic

For Makey Makey GO, It senses the object's electrical capacity and when you touch the object you add electrons to it which the Makey Makey detects. For this, it only works with conductive objects much like the original Makey Makey.

As for Makey Makey Classic, We are able to complete a circuit to activate keys on your computer.

Cost of a Makey Makey Controller:

Usually cost about \$80+

REFERENCES

FridayNight Funkin'

- https://en.wikipedia.org/wiki/Dance_Dance_Revolution
- https://www.google.com/search? q=arcade+dance+stepping+board+in+the+market&rlz=1C1VD KB_enSG980SG980&source=lnms&tbm=shop&sa=X&ved=2ah UKEwijkora-vH7AhUET2wGHcKRA1wQ_AUoAnoECAEQBA
- https://www.youtube.com/watch?v=nXjj9IXUaA4
- https://en.wikipedia.org/wiki/Friday_Night_Funkin%27
- https://en.wikipedia.org/wiki/Dance_pad
- https://colleengraves.org/2016/04/18/review-of-makey-makey-go-and-inventor-booster-kit/

ACKNOWLEDGEMENT

I would like to thank Ms Dai for her guidance throughout this project, she helped and gave my multiple suggestions on how I can improve my game controller

