

# LAB GENESIS

Group work: **Sairaj, Tejas, Saloni**



Sci560 is here celebrating Bengaluru's scientific heritage and programme di  
organisers share with CE what this six-month festival has to offer

## TUNIR BISWAS

MANY of India's premiere research and educational institutes of science can be found across Bengaluru. Let's play a game. Take the city's map and start a drinking game of darts with your friends where the targets are these institutions and you take a shot every time you hit near said targets. Chances are that by the end of the day everyone's going to feel very sorry for their livers. For you don't need accuracy in this rendition of darts to get hammered. That's how many such places there are here.

So for a city riddled with research institutions of various kinds, a public festival celebrating Bengaluru's scientific heritage



## Gaga over science gala

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# About Game



## GOAL \*

You are a pioneering scientist delving into the mysteries of genetic mutation, on a quest to **create the most extraordinary animals** ever imagined. Armed with a mastery of DNA sequencing, you'll combine genes from diverse habitats to craft legendary creatures.

Publish groundbreaking research, outshine your rivals, and **secure the Nobel Prize for innovation** in genetic science!



# Iterations

We tried so many versions, it got a bit too much at times, but we really enjoyed the process!

Iteration 4

Version: v1.1

Date: September 17, 2024

Changes: Removed the previous concept and tried the idea again.

Reason: To add back strategy.

Playtest Feedback: To focus more on scientific part.

Iteration 5

Version: v1.1

Date: September 18, 2024

Changes: Tried different shapes of board and added terrain to score relation.

Reason: Feedback indicated the need for relation between components.

Playtest Feedback: The concept was not working

Lessons Learned: Good ideas may not always work, and need to be refined.

Iteration 8

Version: v1.1

Date: September 19, 2024

Changes: Added the fourth step called process where players capture and win the resource block which would decide the game.

Reason: Feedback indicated the need for a step called 'process' to avoid parallel play and strategy to win.

Playtest Feedback: Game narrative needed correction from Government.

Playtest Setting

No of players: 4

Place: NID

Overall Rating: 4/5

Age: 25-27

Gameplay Time: 40min

Iteration 2

Version: v1.2

Date: September 12 2024

Changes: Removed the trading aspect and tried to make it more simple and less time consuming.

Reason: Feedback indicated the need for strategy.

Playtest Feedback: Players enjoyed strategy of joining the DNA strands as it was a new and interesting concept but missing fun.

Playtest Setting

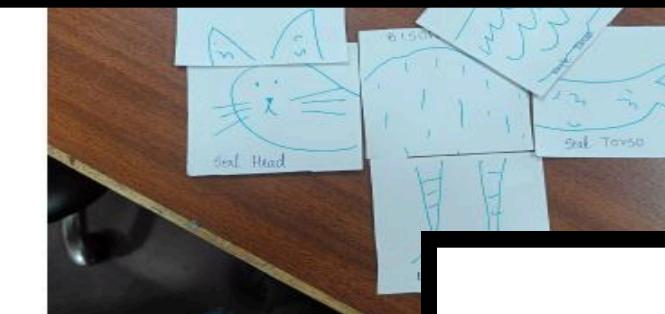
No of players: 4

Place: NID

Overall Rating: 4/5

Age: 25-27

Gameplay Time: 15min



Iteration 5

Version: v1.1

Date: September 18, 2024

Changes: Tried different shapes of board and added terrain to score relation.

Reason: Feedback indicated the need for relation between components.

Playtest Feedback: The concept was not working

Lessons Learned: Good ideas may not always work, and need to be refined.

Iteration 9

Version: v1.1

Date: September 20, 2024

Changes: Finalized the visuals based on the latest narrative.

Reason: Feedback indicated the need for a positive narrative.

Playtest Feedback: Players enjoyed playing for hours and wanted to continue.

Lessons Learned: Board game making can be fun.

Playtest Setting

No of players: 4

Place: NID

Overall Rating: 5/5

Age: 25-27

Gameplay Time: 40min

Iteration 3

Version: v1.1

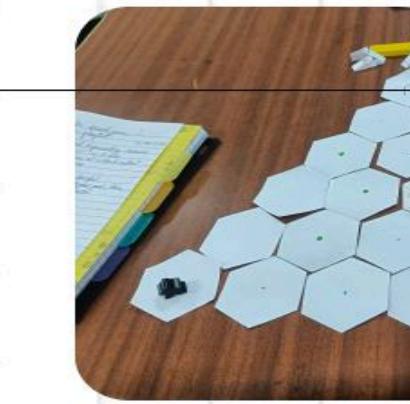
Date: September 17, 2024

Idea: Tried concept of alien v/s scientists.

Reason: Feedback indicated the need for player v/s player and freedom of imagination.

Playtest Feedback: Players enjoyed the freedom of imagination but was difficult to balance the score.

Lessons Learned: Balancing the conflict is important.



Playtest Setting

No of players: 4

Place: NID

Age: 25-27

Gameplay Time: 35min

## Iteration Log:

Iteration 1

Version: v1.1

Date: September 11, 2024

Changes: We have a set of genetic strands which can put together mutations.



Iteration 6

Version: v1.1

Date: September 18, 2024

Changes: Divided each tile into two terrains giving two strands each time player landed on it. Hence increasing the strategy even further more.



Iteration 7

Version: v1.1

Date: September 19, 2024

Changes: Added a robber which would balance resources and added a product called resource block for winning.



Reason: The game needed a step of buying a higher product and needed balance.

Playtest Feedback: There were four steps to a resource collection game, the process step was missing.



Lessons Learned: The four steps are collection, buying/ upgrading, processing, achieving a goal/ earning victory points.

Playtest Setting

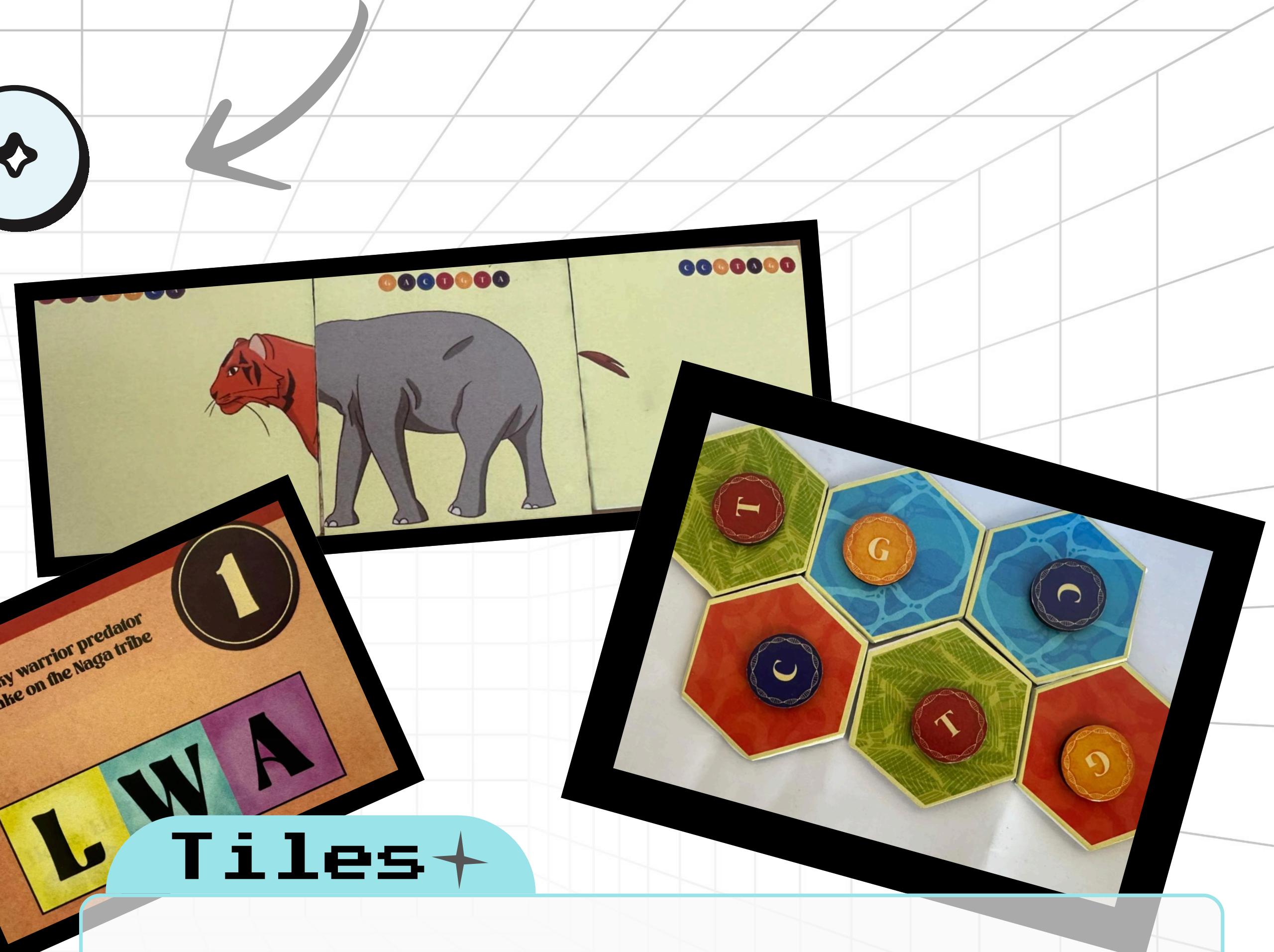
No of players: 4

Place: NID

Age: 25-27

Gameplay Time: 40min

# In the making of it

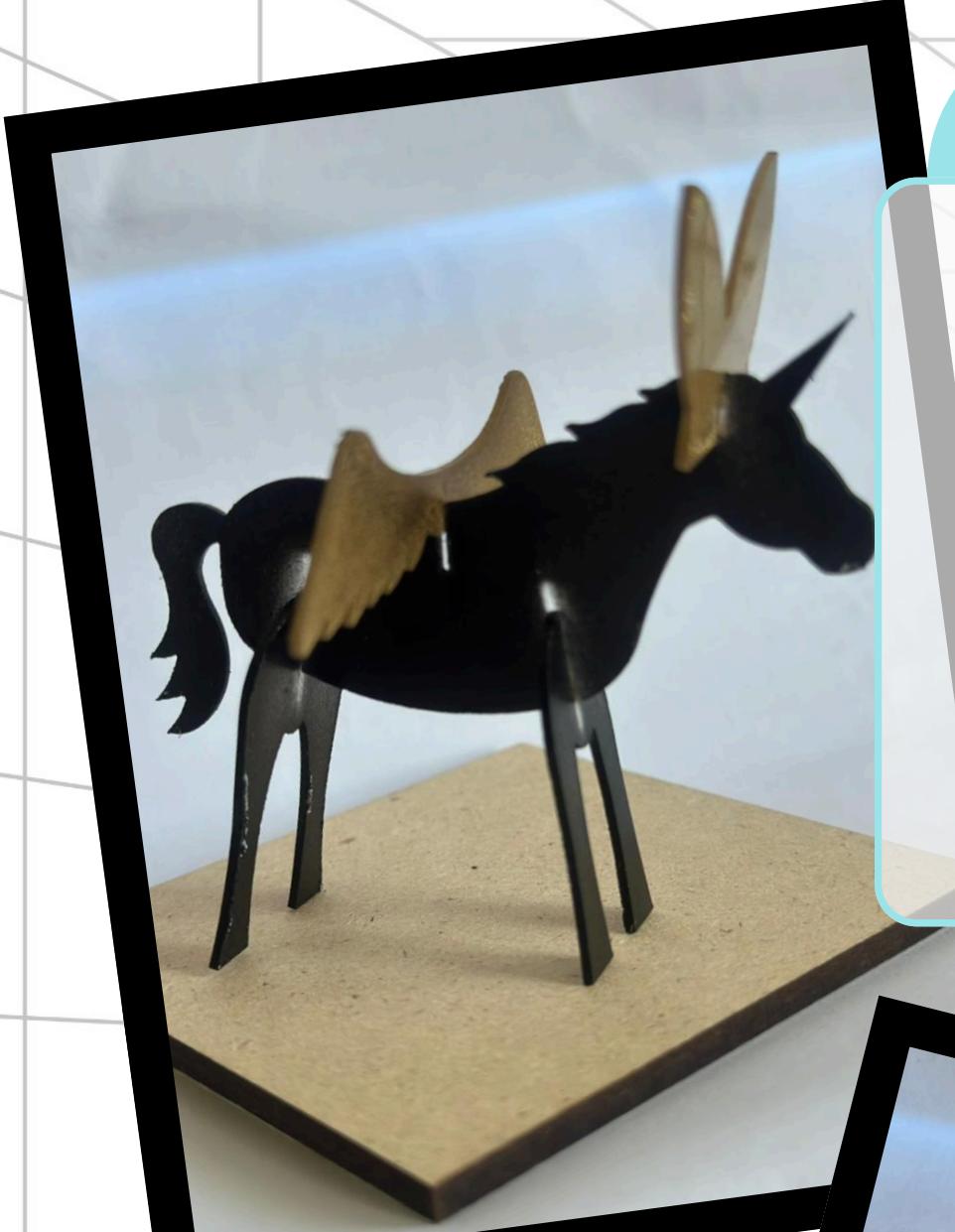


Tiles+

The Board Was Made Using An MDF Base,  
Laser-Cut, And Finished With Sticker Sheets On  
Each Tile.

## Tiles+

The Nostalgic Animal Slit Sheets Were Made From Acrylic Sheet, Laser-Cut, And Spray-Painted Based On The Levels Of Animal Parts.



# Beta Version

## GOAL \*

Establish your own research lab and **secure funding** from world government up to **three times**.



# Instructions

## GOAL \*

Establish Your Own Research Lab And Secure Funding From World Government Up To Three Times.

## NARRATIVE \*

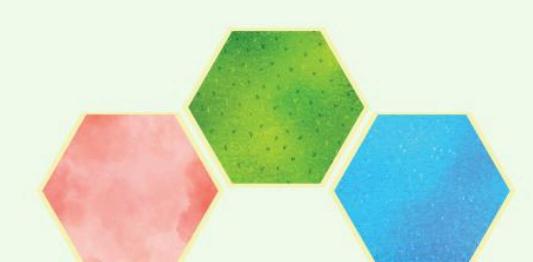
As A New Scientist Specializing In Mutations, Cloning, And Animal Evolution, You Find Yourself Constantly On The Move To Secure Your Own Resources And Funding. Unfortunately, You Often Feel Taken Advantage Of By The Government, Who Tends To Snatch Up Your Hard-Earned Resources. To Combat This, You Work Tirelessly To Clone, Mutate, Or Evolve Your Research Animals, And Even Resort To Taking Resources From Your Fellow Scientists.

After Reaching A Certain Level Of Success And Accumulating Enough Resources, You Are Able To Establish Your Own Lab. This Is A Major Milestone, As It Finally Earns You Recognition From The Government And Solidifies Your Status As A Respected Scientist. Once You Receive Funding From The Government Three Times, You Can Truly Consider Yourself A Successful And Established Scientist In Your Field.

“ Will You Be The First To Unlock The Secrets Of Life Itself, Or Will You Be Left In The Dust As Others Seize The Glory? The Race For Scientific Immortality Has Begun! ”

## COMPONENT LIST \*

### Habitat Tiles



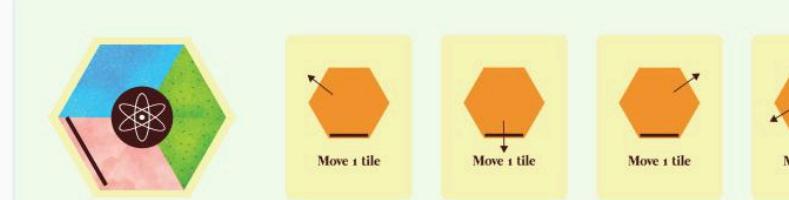
### Resources



### Funding Token

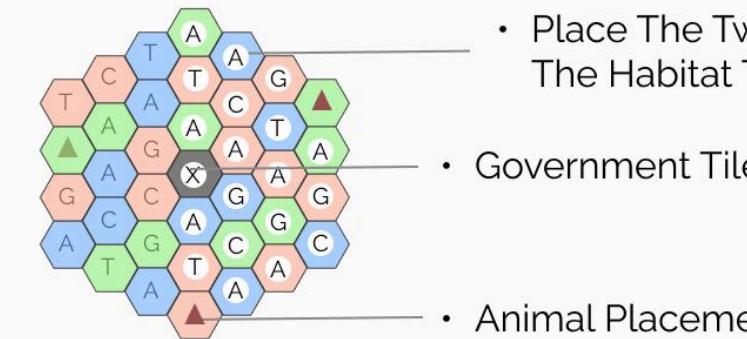


### Government Tile/Movement Cards



## SETUP \*

Let's Get Started By Arranging The Tiles In A Cool Hexagonal Shape, With The Government Tile Right In The Middle. Feel Free To Get Creative With How You Lay Them Out! Next, Place Your Animals Along The Edges Of The Board And Add Two Resource Strands To Each Tile To Set Up The Game. Have Fun!



- Place The Two Resource Strands Randomly On The Habitat Tile.

- Government Tile

- Animal Placement

### Game Setup:

#### a. Set Up The Tiles:

- Arrange The Hexagonal Tiles According To The Game Board Layout.

#### b. Choose Your Animal:

- Each Player Chooses One Of The Following Animals To Begin The Game:
  - Elephant, Kangaroo And Horse.
  - Players Place Their Chosen Animal On Any Tile Along The Edge Of The Board.

#### c. Placement Of Resources:

- Place 2 Same Type Of Resources On Each Tile Except The Government Tile

### Gameplay Overview:

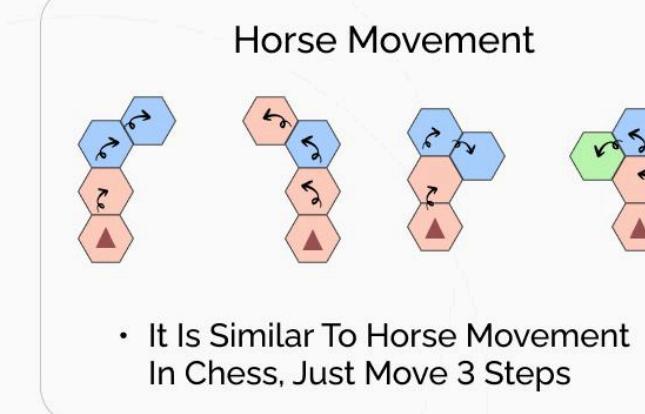
#### Objective:

- Collect Resources To Build Labs, Secure Government Funding, And Ultimately Become The Leading Scientist. To Win, A Player Must Secure Government Funding 3 Times.

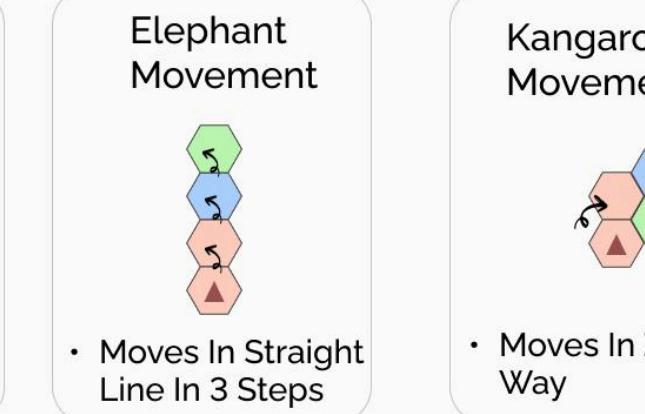
### Turn Structure:

#### a. Animal Movement:

- On Your Turn, Move Your Animal According To Its Movement Rules:



- It Is Similar To Horse Movement In Chess, Just Move 3 Steps



- Moves In Straight Line In 3 Steps



- Moves In Zig-Zag Way

- After Moving, Collect The Resource From The Tile Where Your Animal Lands.

## Gameplay \*

- b. Resource Collection:
  - After Each Movement, Players Collect The Resource From The Tile They Land On. These Resources Are Crucial For Creating Clones, Leveling Up, And Mutations.
- c. Government Movement:
  - At The End Of All Players' Turns, Draw An Action Card For The Government's Movement.
  - The Government Moves To The Tile Specified On The Card, And That Tile Becomes Blocked.
    - Players Cannot Move Onto A Blocked Tile.
    - If A Player Lands On All The Tiles Adjacent To The Blocked Tile, They Must Return 1 Resource To The Blocked Tile.
- **Upgrading And Mutating Animals:**
  - a. Mutating Animals:
    - Players Can Mutate Their Base Animals To Gain New Movement Abilities As Specified On Their Player Pads.
    - Mutations Require Specific Resources Listed On The Pad.
  - b. Building Clones:
    - To Create A Clone, Collect The Necessary Resources Listed On Your Player Pad. You Need To Build 3 Clones To Progress Toward Building A Lab.
  - c. Leveling Up Animals:
    - Alternatively, Players Can Level Up Their Base Animal To Level 2 By Collecting The Required Resources Shown On The Pad.
    - Players Need 2 Level 2 Animals To Build A Lab.
- **Building Labs And Securing Government Funding:**
  - a. Building A Lab:
    - Once A Player Has Either 3 Clones Or 2 Level 2 Animals, They Can Build A Lab.
  - b. Government Encounters:
    - After Building A Lab, The Player Must Encounter The Government On Any Tile Other Than The Central Government Tile.
    - To Secure Government Funding, The Player Must Encounter The Government 3 Times On These Tiles.
    - After Securing Funding Once, The Player Must Skip Their Next Turn.
- **Winning The Game:**
  - The First Player To Secure 3 Rounds Of Government Funding Wins The Game And **Becomes The Most Established Scientist!**

## Features \*

### Level Up Advantages

- After Leveling Up, Your Base Animal's Movement Changes From 3 Steps To 2 Steps.
- You Can Collect All Resources From Each Tile You Land On After Moving.
- If You Land On A Clone Of Another Player's Animal, You Can Collect All Their Resources From The Tile.
- Extra Movement For Same Habitat Animals:

### Cloning Advantages

- Once You Collect Enough Resources To Create A Clone, You May Place The Clone On Any Tile Along The Edges Of The Board.
- You Can Move Both Your Clone And Your Base Animal During Your Turn, Dividing Your Movement Between Them. For Example:
  - If Your Movement Total Is 3 Steps, You Can Move The Clone 1 Step And Your Base Animal 2 Steps, Or Split The Steps As Needed.
- Each Clone And The Base Animal Can Collect Resources From The Tiles They Land On.
- When You Gather 3 Clones Together On The Board, You Can Build Your Own Lab At The Center Tile Of The Board.
- Once The Lab Is Built, It Provides Advantages And Brings You Closer To Victory.

### Mutation Advantages

- You Can Mutate Your Base Animal By Collecting The Required Mutation Resources As Outlined On Your Player Pad.
- After Mutating, Your Animal Will Gain New Movement Abilities Based On The Mutation Sequence.
- If The Specific Animal Of The Same Habitat Lands On The Habitat Then The Base Animal Can Collect Both The Resources.
- Following Are The Mutations And Their Respective Moves.

1. **Rabbit:** Hop 2 Alternate Tile In Straight Line.
2. **Eagle:** Fly On Any Tile At The Edge Of Board.
3. **Kingfisher:** Fly On Any Tile And Come Back.
4. **Dolphin:** Dive Diagonally.
5. **Octopus:** Collect Resources From 3 Adjacent Tiles.
6. **Horse:** Move In L Shape Pattern.
7. **Elephant:** Move In Straight Line.
8. **Kangaroo:** Move In Zig-Zag Pattern.

# Playtesting

*Playing with NID peeps, we tried both mechanical and blind playtesting, and it was a blast!*



# Feedback Correction

Based on first playtest we did few changes

## Observations \*

- Gameplay was too long.
- Rules were difficult to understand.
- Player mat was redesigned for better readability.
- Mission cards were updated for clarity.
- Some animal abilities were reduced for better balance.



# Final Version



Game Board at Science Gallery Exhibition

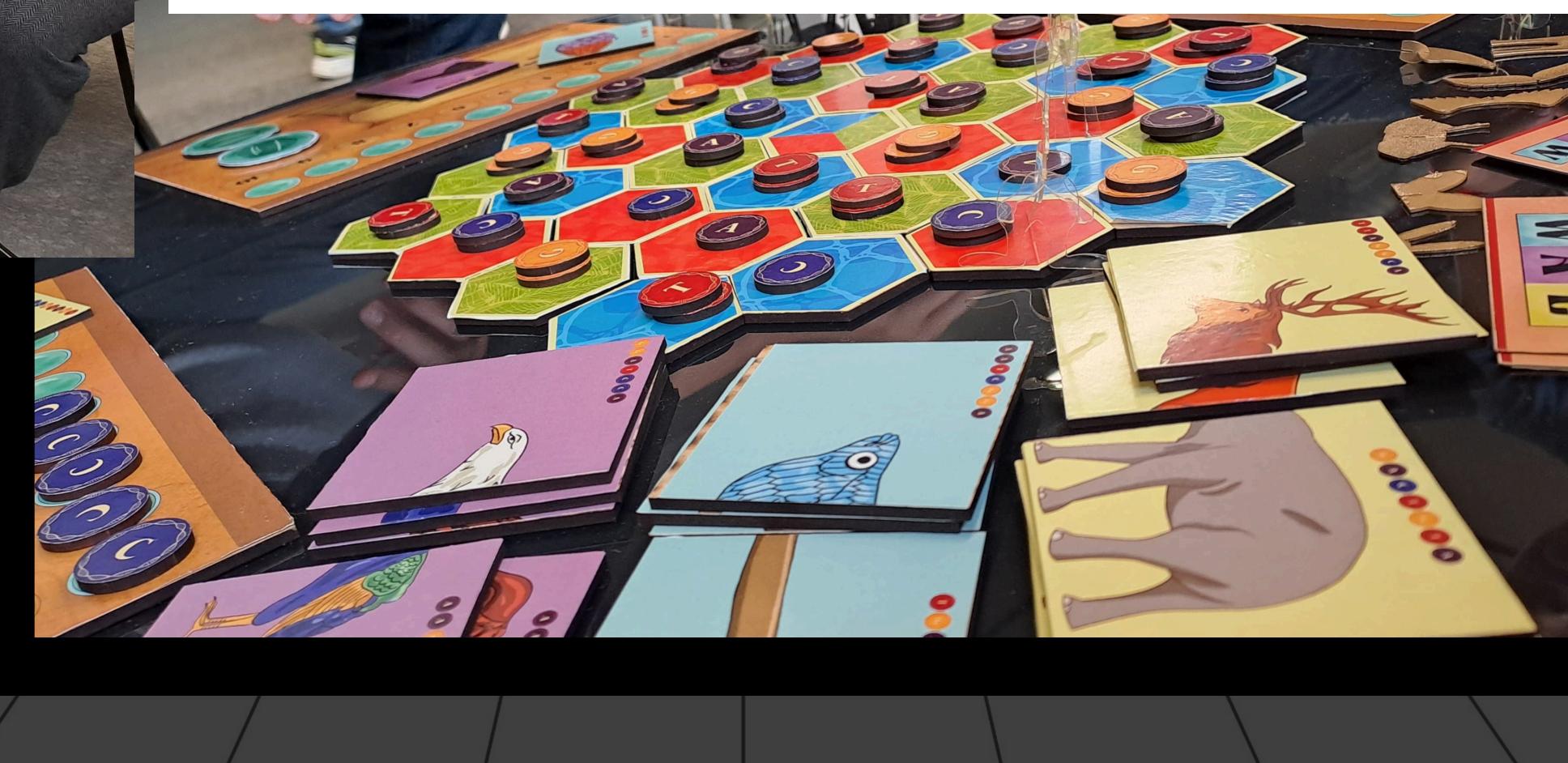
## Game Play \*

Players must earn 5 victory points by completing mission cards that feature animal mutations. Each mission has gene codes, and using mutated animals with unique abilities, players can collect or steal resources.



# Wohoo!!!

A Day at Science Gallery Exhibition

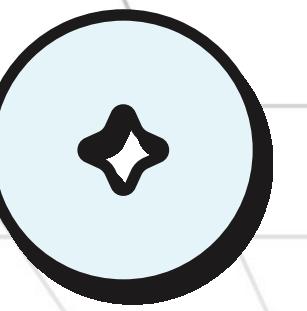


# Still Wohoo!!!

We got players of all ages



# Just for Fun!!!



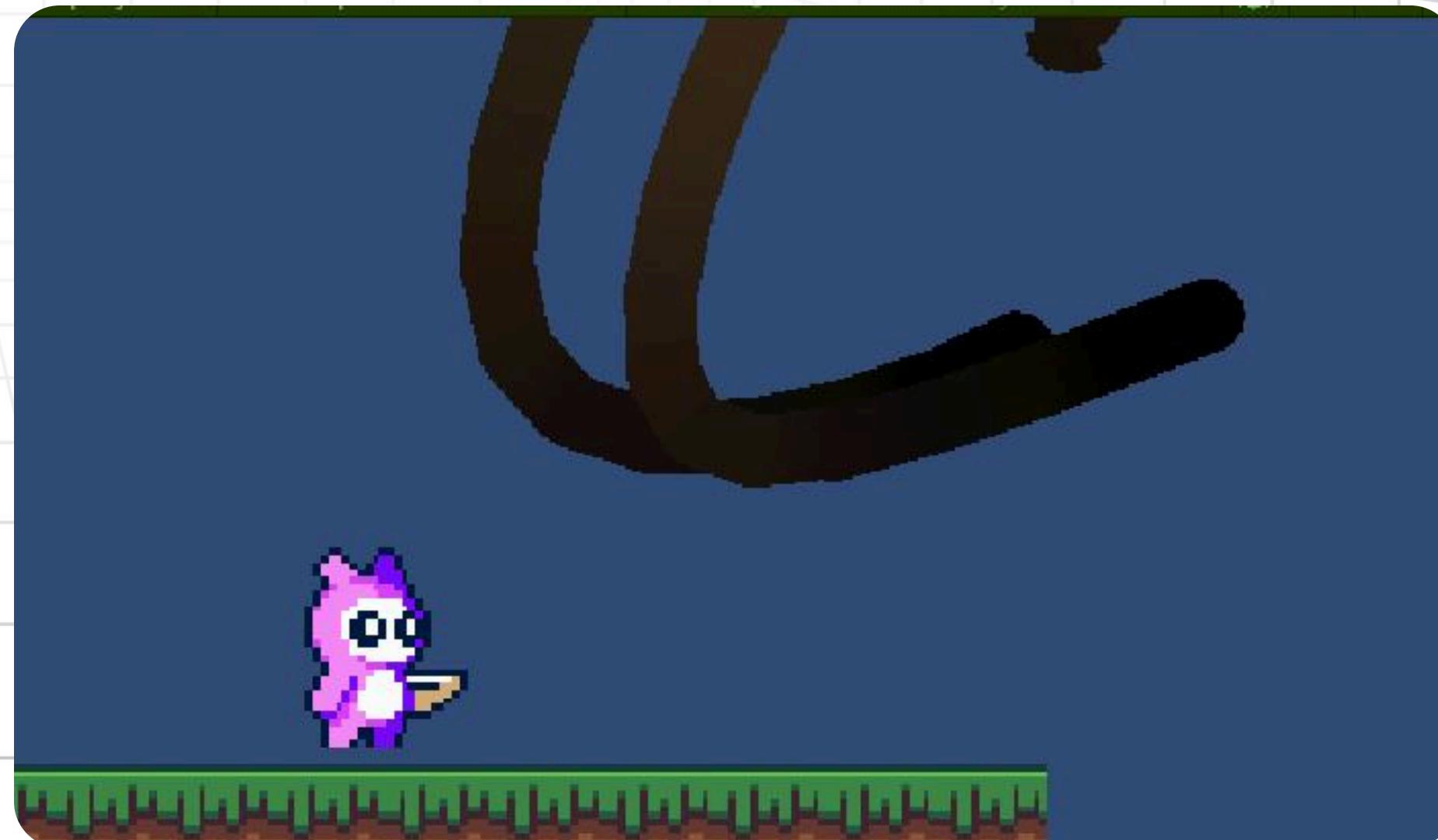
We tried to make this mechanics in a Digital Game

## Our Version of Digital Mutation

*It was just for trial basis, where player can collect different kinds of abilities like swinging, flying, digging, stick to wall*

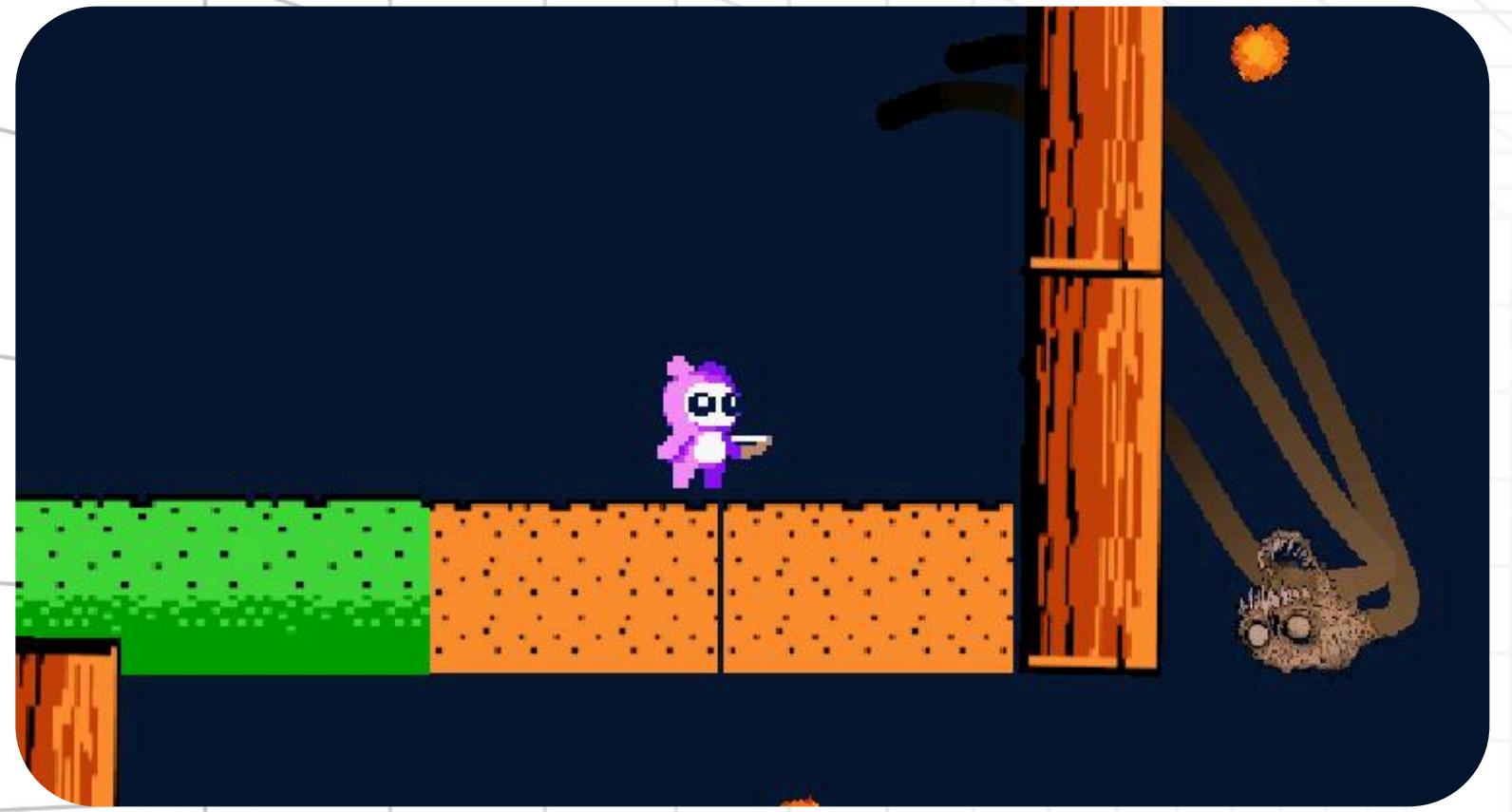


Swing Mechanism



## Fire Shoot Mechanism and Enemy Tentacle Movement

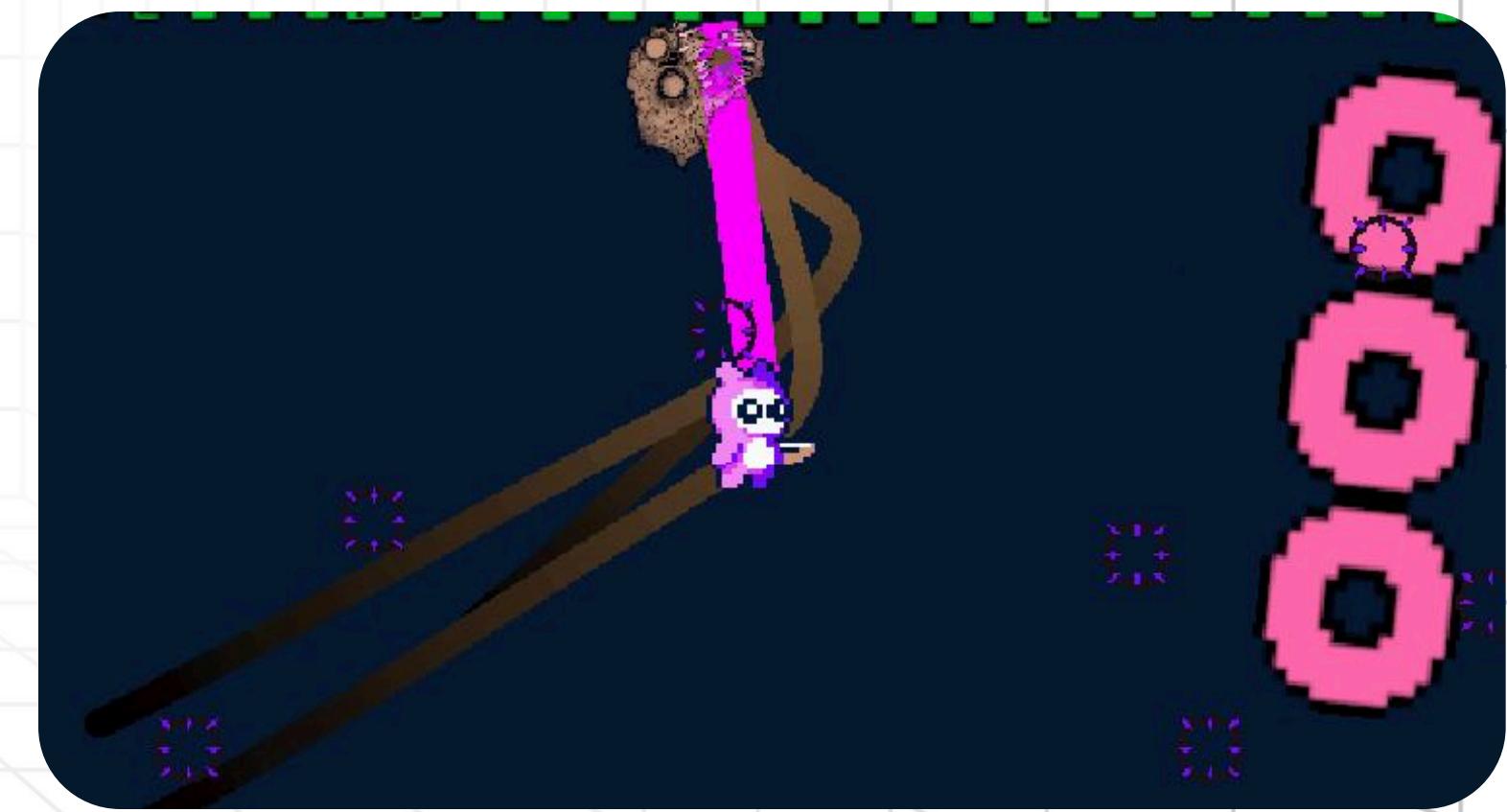
We added a sneaky enemy to dodge and  
gave it wiggly, procedurally animated  
tentacles!



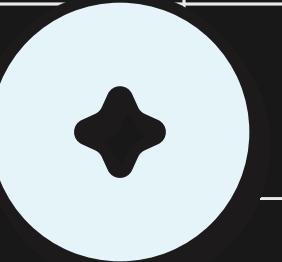
Dig Mechanism



Fly part with Timer



Attach to Wall



n  
o It felt really nice when people said they  
w  
anted to play our game again or even  
u  
buy it. The process was tough at times,  
c  
but seeing the final result made it all  
n  
worth it. I genuinely enjoyed the whole  
c  
experience.