

Re:Build Nature — Creative Exercise

“Re:Build Nature” is a cooperative board game where players work together to restore a post-apocalyptic world. In this cozy and hopeful setting, players, through the power of friendship, transmute garbage into beautiful ecosystems. The game emphasizes ecosystem building and positive action, making sure optimism affects all the core gameplay mechanics. The goal is to have fun as a group and create a unique map as a reward for the players to look back upon.

1. High Concept Document

1.1. Key Details

A brief overview of the game

1.1.1. Game Title

Re:Build Nature

1.1.2. Author

Herschel Pawar

1.1.3. Target Hardware

Board Game (requirement)

1.1.4. Genre

Cooperative Board Game, Three Player Game

1.1.5. Theme

Nature restoration and optimism

1.1.5.1. Optimism

How's optimism used in the game?

Optimism is an important part of the gameplay; it influences nearly every game mechanic, and it's not merely a goal the players need to complete to 100%. The decisions made in the game are reflected in the real world, as the players need to draw on the map to perform actions. This acts as physical evidence for the time they spent together, and hopefully, in dire times, they will look back at the map they created and get hope.

1.1.6. Core Gameplay Idea

Three players come together to transform the garbage-filled map into scenic beauty by physically drawing on the map. They roll to gain action points, and the number of action points is determined by the current optimism level.

1.2. High Concept/Synopsis

Short statement about the game

“Re:Build Nature” is a cozy cooperative board game set in a post-apocalyptic world. Three robots want to transmute garbage into a beautiful landscape. Specialize your robots to transmute tough garbage and end up with a beautiful map.

1.3. Features

"Hooks" for the game

- Cooperative Gameplay: Cooperative game with 3 players
- Nature Restoration: Transmute garbage into a beautiful ecosystem
- Post-Apocalyptic Setting: Set in a world where robots have gained sentence
- Create a Map: Draw on the tiles to transmute garbage
- Cats!

1.4. Player Motivation

Why is the player playing the game?

Players want to relax and play with their friends. Once the game finishes, they end up with a map as physical, everlasting proof of their gameplay.

1.5. Target Audience

Who is the game aimed at?

People interested in relaxing with their friends.

1.6. Competition

Examples of similar products and comments on how it's different

1.6.1. Terra Nil

Terra Nil is an intricate environmental strategy game about transforming a barren wasteland into a thriving, balanced ecosystem. Bring life back to a lifeless world by purifying soil, cleaning oceans, planting trees, and reintroducing wildlife, then leave without a trace.

— Official Steam Page

“Re:Build Nature” differentiates itself from “Terra Nil” by offering a multiplayer experience with a strong emphasis on optimism. While “Re:Build Nature” also has animals and plants, it’s up to the player’s imagination on how they look. Also, due to the presence of action cards and cat tokens, the players need to strategize on what to do.

1.7. Unique Selling Points

What makes the game idea unique?

- Physical evidence of completed game.
- Relaxing gameplay with friends.

1.8. Design Goals

The important design aspects of your game that we want to instill

- Create a cooperative experience with positive vibes
- Relax with friends
- Have enough variety to be replayable
- Act as a team-building exercise
- Create a tangible sense of achievement with the completed map
- Encourage homebrew and customization through a modular design
- No fail state

1.9. Design non-goals

Design aspects that we're explicitly trying to avoid

- Mechanics which introduce competition between players
- Mentally intensive game that requires juggling resources
- Punishing gameplay
- Extremely random gameplay
- Long gameplay loops

2. Gameplay Loop

2.1. Pre-game

Players need to distribute 3 skill points (SPs) between the following skills.

- Water
- Plant
- Animal

Optimism level starts at 0%.

Design Note: Starting with a weak and generalized skill set, and then eventually specializing.

Recommendation: The players can attach their player cards to the outside of the grid, and that would be their starting position.

2.2. Action Point Generation

At the start of the round, all players roll a ten-sided dice (1D6) which generates action points (APs) according to Equation 1.

$$AP = 1 + \left\lfloor \text{Bias (Equation 2)} * \frac{\text{dice roll}}{6} \right\rfloor \quad \sim \text{Eq 1}$$

$$\text{Bias} = \begin{cases} \{0\} & \text{if Optimism} < 10\% \\ [0, 2] & \text{if } 10\% \leq \text{Optimism} < 20\% \\ [1, 2] & \text{if } 20\% \leq \text{Optimism} < 30\% \\ [1, 3] & \text{if } 30\% \leq \text{Optimism} < 40\% \\ [1, 4] & \text{if } 40\% \leq \text{Optimism} < 50\% \\ [2, 4] & \text{if } 50\% \leq \text{Optimism} < 75\% \\ [3, 4] & \text{if } 75\% \leq \text{Optimism} < 90\% \\ \{4\} & \text{if } 90\% \leq \text{Optimism} < 95\% \\ \{5\} & \text{if } 95\% \leq \text{Optimism} \end{cases} \sim \text{Eq 2}$$

Design Note: The game-play accelerates towards the end as optimism is high. This feels similar to real life, where, without optimism, there's no hope, and without hope, the energy level is extremely low; thus, people are unable to perform actions and do stuff.

Minimum Optimism Level	0%	10%	10%	10%	20%	20%	30%	30%	30%	40%	40%	40%	40%	50%	50%	50%	75%	75%	90%	95%	100%
Dice Values	always	1	2, 3	4, 5, 6	1, 2	3, 4, 5, 6	1	2, 3	4, 5, 6	1	2	3, 4	5, 6	1	2, 3	4, 5, 6	1, 2	3, 4, 5, 6	always	always	always
Action Points	1	1	2	3	2	3	2	3	4	2	3	4	5	3	4	5	4	5	5	6	7

Table 1: Look Up Table for AP calculation

2.3. Players' Move

The players strategize, if they need to move to some tile, they move towards the tile, if they need to perform actions, they can spend AP to either refine resources or draw action cards. If they want to trade SP, they can spend AP to do so. Refer to the rules ([Section 3.2](#)) to see what players can do with AP. There is no fixed order that the players have to follow.

Design Note: This gives freedom to the players. This way, if they get a negative action card and need to react to it, they're able to.

The players are free to spend AP in any order they want. This phase ends once all the players have used their AP. APs don't carry over, use it, or lose it.

2.4. Cat Token Related Actions

The players have a chance to place a cat on the hex they're currently in. The players roll a six-sided dice, which decides if they can place a cat. The chance is calculated using Equation 3. Only one roll per round.

$$\text{Success?} = \begin{cases} \text{Yes} & \text{if } \left\lfloor \frac{\text{dice roll}}{6} * 100 \right\rfloor \leq \text{Optimism} \\ \text{No} & \text{otherwise} \end{cases} \sim \text{Eq 3}$$

Design Note: I love cats; they make everything better for me. That's why cat tokens are being used to amplify the positive action cards.

dice roll	1	2	3	4	5	6
minimum optimism	16	33	50	66	83	100

Table 2: Look Up Table for success calculation

2.5. Round Over

Players get 1 more SP at the following optimism thresholds

1. 25% 1. 50% 1. 75% 1. 100%

Design Note: Trying to mimic the process of specialization in real life

Go to [Action Point Generation](#)

2.6. Game Over

The game is over when the players are happy with the map or all the garbage has been refined.

3. Rules of the game

3.1. Gaining Optimism

- 3% for visiting hex with cat
- 3% for placing cat
- 2% for transmuting all the garbage in a hex
- 1% for trading
- Drawing action cards
 - Positive action cards give +3%
 - Negative action cards give -2%
 - Avoiding negative action cards give +1%

3.2. Using AP

- Draw an Action Card
- Travel to another hex
- Transmute garbage into resources
- Save the action card for later
- Trade skill points

3.3. Positive Action Cards

The player decides when and where to use the positive action card. The action card is applied to the hex they're currently standing on.

3.4. Negative Action Cards

The negative effects of the action card are immediately evoked on the hex the player is in. You can roll to avoid the negative effect. Success follows Equation 3.

Design Note: Rolling to avoid is being used to mimic the feeling that negative outcomes affect you less when you're hopeful and optimistic.

3.5. Trading Skill Points

There are four requirements to trade skill points.

1. The player giving skill has enough AP
2. Negative skill points don't aren't valid
3. They're both in the same hex
4. The skill category is the same

3.6. Cat Token

Cat tokens can only be placed in the current hex, and they can't be moved. There is no max cat per hex; however, the maximum number of cats per board is calculated using Equation 4.

$$\text{Max number of cats per board} = \lfloor \text{number of hexes in the map} * 1.5 \rfloor \quad \sim \text{Eq 4}$$

Length	3 (standard)	4	5
Hexes	8	23	46
Cats	12	34	69

Table 3: Look Up Table for calculating max number of cats

Unless otherwise stated, the cat modifiers only apply if the action card is used in a hex with a cat token. The cat modifiers are applied for each cat token in the hex.

3.7. Corruption

The corruption level is randomized on each tile. Corruption level determines the minimum skill level required to transmute the garbage. Players need to roll a six-sided dice (1D6) for the corruption level for each resource (that is, water, plant, and animal). For example, Level three corruption requires a minimum of level three skill. Rolling to check for corruption level doesn't consume AP. Corruption doesn't spread. The corruption levels are calculated once a player enters the hex.

Design Note: Corruption level exists as a skill level check; hopefully this will encourage players to specialize their AP and also increase optimism level.

3.8. Garbage

There are three garbage per hex. Transmuting one garbage consumes one AP. The resources stack multiplicatively and can spill into other tiles depending on the stacking level. Here, spilling means that the hex being spilled into gets a +1 bonus for the resource and you need to indicate which hex is being spilled into by drawing.

1 stack can't spill

2 stack upto 3 hexes

3 stack upto 6 hexes

Some resources have requirements.

- Water: none
- Plant: require Water
- Animal: require Water and Plant

4. Visualizations

Items required:

- Pencils
- Crayons
- Erasers
- Glue

Anything to enhance the tiles!

Design Note: These are just suggestions; use your creativity!

4.1. Board

The players need to have two boards. One serves as the "data layer", used to track how many resources are present, the corruption levels and how many raw resources are remaining. The other one is used for drawing the map.

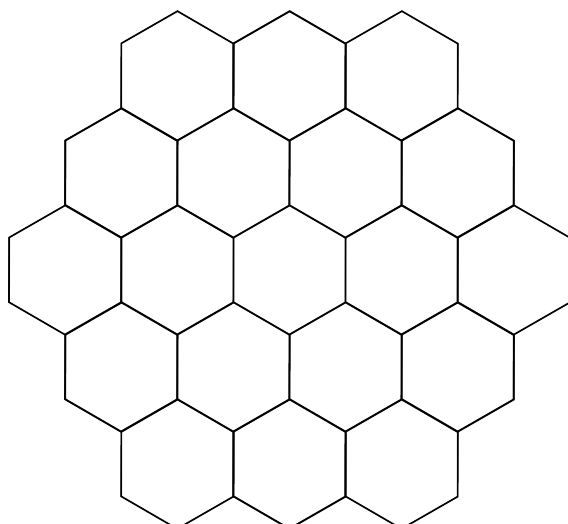


Figure 1: Example Hex Grid of length 3 (standard)

Design Note: Hexagons are bestagons! :3

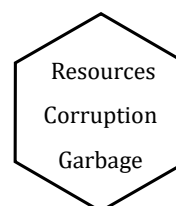


Figure 2: Layout for a single "data layer" hex

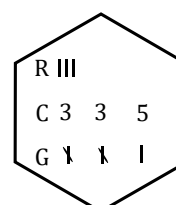


Figure 3: Example of a hex

4.2. Player Card

The players can draw whatever they want as their player character inside a hexagon.

4.3. Cat Token

Draw a cat and then cut around the cat, so there is minimal paper, and then glue it on the grid.

Design Note: Small fun moments to look back at and laugh.

4.4. Cards

4.4.1. Positive Action Cards

Effect	Cat Modifier
+1 Water Skill	+1 Animal
+1 Plant Skill	+1 Water
+1 Animal Skill	+1 Plant
+3 skill points	+1 skill point to all
+1 AP	+1 AP to all
temporary +10% optimism	permanent +1% optimism
skip the next negative card	permanent +5% optimism

4.4.2. Negative Action Cards

Effect	Cat Modifier
-1 Water Skill	adds +1 garbage
-1 Plant Skill	adds +1 garbage
-1 Animal Skill	adds +1 garbage
-1 to all skill levels	gain +4 skill levels
-1 AP	+1% optimism
can't participate next round	+1 AP
lose one of your stashed card	skip next negative card

5. A report of testing the game

The testing was done by meeting in real life and hosting a game. Two of my friends (Ashutosh, and Divyesh) joined me to play the game (see: Photo 4). A two hour session was held. The drawing part was done on pc, using the digital painting app [Krita](#) and a pentablet ([XP-Pen Deco Fun L](#)). The data layer was done on a paper (see: Photo 6). We used out keychains as player tokens to track position (see: Photo 1, Photo 2, and Photo 3).

These were the major problems we encountered and what I did to remedy them.

- +1 Water felt weird resource
 - Rework it to give +1 skill instead
- The AP generation rules were confusing
 - Made the lookup table easier to refer
- Rules were unclear and ambiguous
 - Tried my best to clarify them
- Very few avenues to increase optimism
 - Did nothing, working as intended
- Checking for corruption was after the turn felt like cheating
 - Made it so the corruption is automatically rolled everytime someone enters a new hex

6. A description of an interesting and memorable moment

- I got a negative card in the first round and made the optimism level negative, my friends playfully teased me the whole game.
- We were very excited to reach 10% optimism as we won't be limited to one AP.
 - "Gambling" by drawing action cards when optimism level was below 10% felt similar to how every action taken when suffering from depression felt like a gamble.
- Divyesh rolled for AP when it was Ashutosh's turn, he got a 6, we peer pressured Ashutosh to roll instead of taking the 6 and he got 1.
- Ashutosh drew a "-1 Animal" action card, we cheered him for an encore, and he got "+1 Animal", making it so he ended his turn with +1 Animal skill level.

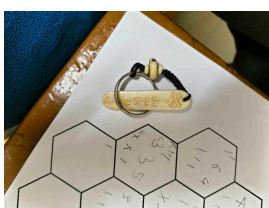


Photo 1: Ashutosh's Token

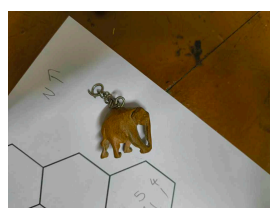


Photo 2: Divyesh's Token

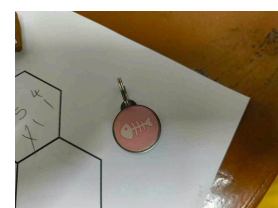


Photo 3: Herschel's (my) Token



Photo 4: Meeting up to play

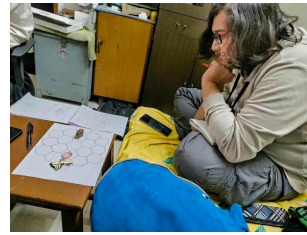


Photo 5: Discussing Moves

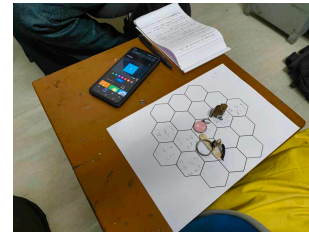


Photo 6: Final Positions

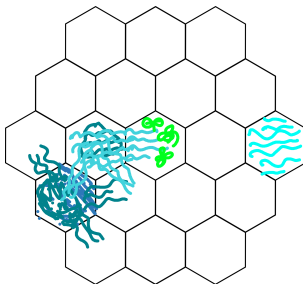


Photo 7: Final Map

The game is really fun to play with friends. Although the learning curve is a bit steep and the game is kinda slow, working cooperatively with friends and building up optimism (actual and mechanistic) to fill the map is really fun.

— Divyesh

7. Conclusion

Once I got hang of how to use optimism as a mechanic, I was able to use my personal experience with fighting depression as inspiration. I tried my best to represent my feelings as game mechanics. Similar to how starting the journey to heal depression feels extremely difficult and slow, the game starts slow and feels like we made no progress. Every move felt like a gamble, it might either make me feel better, or it might worsen the situation. However, with the help of my friends, I persevered, and slowly, but surely got better. After a while my recovery started accelerating and I was able to study, and do everyday tasks which felt like a drag. Everytime something positive happened, be it playing games with my friends or getting to pet a stray cat, it boosted my moral. It feels good to look back at the game screenshots, photos, and chat messages.

This was the first board game I made and there were many oversights, but I trusted in my friends to give me good feedback and they delivered. As for the core gameplay, I believe I was able to weave the feeling of optimism through hope into the game mechanics.

8. Glossary

- **Action Points (AP)** Energy system for the game.
- **Skill Points (SP)** Points allocated to skills that determine if the player can transmute garbage or not.
- **Optimism** A percentage based value that influences various game mechanics (not too dissimilar to luck.).
- **Garbage** Raw materials that can be [transmuted](#) into [resources](#).
- **Raw resources** See: [Garbage](#)
- **Resources** The refined materials created from garbage. Limited to Water, Plant, and Animal in the base game.
- **Corruption** The measurement of difficulty required to transmute garbage into a resource.
- **Corruption Level** The minimum skill level required to transmute garbage into a particular resource.
- **Hex** A single tile on the board.
- **Cat Token** A token that provides bonuses when [action cards](#) are used on a [hex](#).
- **Action Card** Cards that provide special actions or effects, both positive, and negative.
- **Transmute** The process of converting garbage into resources.

Re:Build Nature — Analytical Exercise

This essay examines the board game “Re:Build Nature”, which was loosely made using the MDA(Mechanics, Dynamics, and Aesthetics) framework with strong influence from Four phases of design (Section 10). The aim of this essay is to reflect on the board game’s results and the process of making it as a person who isn’t creative. It goes through some problems I faced and how I overcame them. This essay focuses on three problems in Core Design Philosophies (Section 12), and my thought process behind the decisions made for them.

9. Introduction

and what I believe

I am not a creative person. I believe that designing is a muscle that can be trained by (not blindly) copying, analyzing, and then remixing the work of others. I believe that there’s always a lesson to be learned. So, how did I design my game?

10. Four phases of design heavily inspired by [Double Diamond \(design process model\)](#)

1. Expanding the possibilities -> Explore the problem space.
2. Condensing the possibilities -> Define the core problem.
3. Expanding the scope -> Develop the potential solutions.
4. Condensing the scope -> Deliver the final solution.

10.1. MDA

10.1.1. Aesthetics Getting started (Section 11), and Core Design Philosophies (Section 12)

Decide how I want the player to feel

10.1.2. Dynamics expansion phase of Goals and non-goals (Section 13)

What all actions can make the player feel

10.1.3. Mechanics condensation phase of Goals and non-goals (Section 13)

What all mechanics I can implement

11. Getting started

Expanding the possibilities

I started by checking the definition in dictionary, but found nothing. Optimism is a feeling, so I started thinking about the moments I feel optimism, and the anti-thesis of optimism, depression. I say moments because people only remember the peaks, and peaks only last a moment. Then I asked my friends about what they thought the game could have.

12. Core Design Philosophies

Condensing the possibilities

12.1. “Given the opportunity, players will optimize the fun out of a game.”

I need to make sure that the optimal path is the fun path. I am guilty of this as well. However, this is supposed to be a cooperative board game. What does winning mean in this context? Does it even make sense to have a win state in the game? [Minecraft](#) doesn’t have one.

I used to play Minecraft with friends back in school. Killing the ender dragon triggers ending credits. However, to most people, that’s not the point, it’s more about having fun.

Playing a cooperative and creative game brings people together. Thus, I decided that the game shouldn’t have an explicit win condition, and just like Minecraft, I decided that the “win condition” should be the memories.

12.2. Giving the players more control

Nerfing people's abilities always leaves a sour taste. My goal was to ensure players felt in control of their choices and had an external factor for negative results.

Action points lets the players get to decide what to do with, while also limiting how much they can do.

Negative action cards exist as scapegoat for bad rounds.

12.3. Gambling? Or optimism?

My friend Emý suggested a push-your-luck game, as she thought optimism is hoping for improbable outcome, however, as an ex-gatcha game player, it felt too close to gambling.

I thought about rogue-likes and rogue-lites, how do they deal with it? In [Brotato](#), you get higher tier items surviving more waves, you are guaranteed to get higher stats by leveling up, and it has a higher chance of giving you more weapons of same category.

So, action points scale with optimism and cat tokens exist as scalars to action cards.

13. Goals and non-goals

Expanding and then condensing the scope

There were many ideas, but what I could use weren't only limited by the medium of the game, but also by the page limit for the assignment. So, I had work within those limitations. Also, a strong core is better than multiple underdeveloped ideas. It's also better to add a strong core, rather than removing and suffering backlash.

Describing your game's Core Gameplay Idea (Section 1.1.6) limit by using Design Goals (Section 1.8) and Design non-goals (Section 1.9).

14. Scrapped ideas

Removed while limiting scope

- Trying for emergent gameplay
 - Future Work: Add action cards with synergies (similar to [Enter the Gungeon](#))
 - Stashed Cards can have synergies
 - Reason: overscoping + limited pages
- Creative action cards and flavor texts
 - Reason: limited area to explain
- Make the AP calculation simpler
 - Reason: worked good enough for test play
- Push-Your-Luck Mechanic
 - Reason: Gambling? Or optimism? (Section 12.3)
- Cooperative Uno-like Game
 - Reason: unsure how to adapt the game
- Optimism as a Resource
 - Reason: didn't line up with my vision

15. Potential influences

Reference for improving the gameplay in future

- [Pandemic \(board game\)](#)
- [Dungeon Meshi](#)
- [Darkest Dungeons](#)
- [Flow \(2024 film\)](#)
- [Prisoner's dilemma](#)

16. Final Words

I hasn't played that many board games, let alone board games with complex rulesets which require more than 10 minutes to learn. So, making a board game was an interesting challenge. Another thing is that I'm accustomed to hiding the complex looking formulae behind code, so showing them in an easy to use manner wasn't that easy, especially with the limited number of pages I could use.

Also, I can only make games and programs if I'm personally interested in using them. To do that, I had imbue the game with my emotions. I wanted to make the players feel increasing amounts of hope and optimism, just as I felt. However, I didn't want them to feel the mental damage. It's not supposed to be that kind of game.

While it may seem like I've been complaining about the limitations, I know that limitations breed innovation. It made me perform quite a few hacks to fit all the content within 7 pages.

17. Conclusion

Looking back I feel like the game's success was 6.5/10. It had quite a few problems, but with time, and more playtests, it can become a decent game. It was fun to play the game with my friends. The action cards are a bit boring. I feel like the (admittedly) stupid drawings would've been funny, especially the cat tokens.

Re:Build Nature — Acknowledgement

18. Acknowledgement

in alphabetical order

- Addy (DOS)
- Ashutosh
- Divyesh
- Emý
- Lucrious
- nottoph
- PerForkOp

19. Major Inspirations

- Terra Nil
- Wall-E
- Gartic Phone
- [“Terra Nil Claims It's A Reverse Citybuilder. It Isn't.”](#) — Adam Millard - The Architect of Games
Link to the video: <https://www.youtube.com/watch?v=WKTvUrbMlrA>
- [“This Psychological Trick Makes Rewards Backfire”](#) — Game Maker's Toolkit
Link to the video: <https://www.youtube.com/watch?v=1ypOU6rThM>

20. Miscellaneous

- [“How Game Designers Protect Players From Themselves”](#) — Game Maker's Toolkit
Link to the video: <https://www.youtube.com/watch?v=7L8vAGGitr8>
- [“Analysis: Why We Should Buff More Than Nerf”](#) — Core-A Gaming
Link to the video: <https://www.youtube.com/watch?v=bsC8io4w1sY>
- [“Roguelikes, Persistency, and Progression”](#) — Game Maker's Toolkit
Link to the video: <https://www.youtube.com/watch?v=G9FB5R4wVno>
- [“Ten Free 3D-Printed Board Games Too Silly for Stores”](#) — Zack Freedman
Link to the video: <https://www.youtube.com/watch?v=o78L0DPMGQg>
- [“Hextraction: The Free 3D-Printed Board Game You Make, Mod, and Master”](#) — Zack Freedman
Link to the video: <https://www.youtube.com/watch?v=Iqz7ZDdP25A>

Re:Build Nature — Outlines and Lists

Outline

1.	High Concept Document	1
1.1.	Key Details	1
1.1.1.	Game Title	1
1.1.2.	Author	1
1.1.3.	Target Hardware	1
1.1.4.	Genre	1
1.1.5.	Theme	1
1.1.5.1.	Optimism	1
1.1.6.	Core Gameplay Idea	1
1.2.	High Concept/Synopsis	1
1.3.	Features	1
1.4.	Player Motivation	1
1.5.	Target Audience	1
1.6.	Competition	2
1.6.1.	Terra Nil	2
1.7.	Unique Selling Points	2
1.8.	Design Goals	2
1.9.	Design non-goals	2
2.	Gameplay Loop	2
2.1.	Pre-game	2
2.2.	Action Point Generation	2
2.3.	Players' Move	3
2.4.	Cat Token Related Actions	3
2.5.	Round Over	3
2.6.	Game Over	4
3.	Rules of the game	4
3.1.	Gaining Optimism	4
3.2.	Using AP	4
3.3.	Positive Action Cards	4
3.4.	Negative Action Cards	4
3.5.	Trading Skill Points	4
3.6.	Cat Token	4
3.7.	Corruption	4
3.8.	Garbage	5
4.	Visualizations	5
4.1.	Board	5
4.2.	Player Card	5
4.3.	Cat Token	5
4.4.	Cards	6
4.4.1.	Positive Action Cards	6
4.4.2.	Negative Action Cards	6
5.	A report of testing the game	6
6.	A description of an interesting and memorable moment	6
7.	Conclusion	7
8.	Glossary	7

9. Introduction	8
10. Four phases of design	8
10.1. MDA	8
10.1.1. Aesthetics	8
10.1.2. Dynamics	8
10.1.3. Mechanics	8
11. Getting started	8
12. Core Design Philosophies	8
12.1. "Given the opportunity, players will optimize the fun out of a game."	8
12.2. Giving the players more control	9
12.3. Gambling? Or optimism?	9
13. Goals and non-goals	9
14. Scrapped ideas	9
15. Potential influences	9
16. Final Words	10
17. Conclusion	10
18. Acknowledgement	11
19. Major Inspirations	11
20. Miscellaneous	11

List of Tables

Table 1 Look Up Table for AP calculation	3
Table 2 Look Up Table for success calculation	3
Table 3 Look Up Table for calculating max number of cats	4

List of Figures

Figure 1 Example Hex Grid of length 3 (standard)	5
Figure 2 Layout for a single "data layer" hex	5
Figure 3 Example of a hex	5

List of Photos

Photo 1 Ashutosh's Token	6
Photo 2 Divyesh's Token	6
Photo 3 Herschel's (my) Token	6
Photo 4 Meeting up to play	7
Photo 5 Discussing Moves	7
Photo 6 Final Positions	7
Photo 7 Final Map	7

List of Links

1. Krita: https://krita.org/en/	6
2. XP-Pen Deco Fun L: https://www.xp-pen.com/product/deco-fun-xs-s-l.html	6
3. Double Diamond (design process model): https://en.wikipedia.org/wiki/Double_Diamond_(design_process_model)	8
4. Minecraft: https://www.minecraft.net/en-us	8
5. Brotato: https://store.steampowered.com/app/1942280/Brotato/	9
6. Enter the Gungeon: https://www.enterthegungeon.com/	9
7. Pandemic (board game): https://en.wikipedia.org/wiki/Pandemic_(board_game)	9

8. Dungeon Meshi: https://en.wikipedia.org/wiki/Delicious_in_Dungeon	9
9. Flow (2024 film): https://en.wikipedia.org/wiki/Flow_(2024_film)	9
10. Prisoner's dilemma: https://en.wikipedia.org/wiki/Prisoner's_dilemma	9
11. Terra Nil Claims It's A Reverse Citybuilder. It Isn't.: https://www.youtube.com/watch?v=WKTvUrbMlrA	11
12. This Psychological Trick Makes Rewards Backfire: https://www.youtube.com/watch?v=1ypOU6rThM	11
13. How Game Designers Protect Players From Themselves: https://www.youtube.com/watch?v=7L8vAGGitr8	11
14. Analysis: Why We Should Buff More Than Nerf: https://www.youtube.com/watch?v=bsC8io4w1sY	11
15. Roguelikes, Persistency, and Progression: https://www.youtube.com/watch?v=G9FB5R4wVno	11
16. Ten Free 3D-Printed Board Games Too Silly for Stores: https://www.youtube.com/watch?v=o78L0DPMGQg	11
17. Hextraction: The Free 3D-Printed Board Game You Make, Mod, and Master: https://www.youtube.com/watch?v=Iqz7ZDdP25A	11