Design Document

# Key Questions:

1. What are the basic gameplay loops?
2. What is the game’s visual direction?
3. What is the scope of the code required to develop this game?

# Vocabulary:

1. Played - The card has been used, but *can* be shuffled back into your deck.
2. Discarded - The card has been used, but *can’t* be shuffled back into your deck until the battle is over.
3. Exhausted - The card has been used, but won’t be shuffled back into your deck even after the battle is over.

# Brainstorming

* Procedurally generate the environment
* Rogue-like gameplay
* Card-based combat:
  + Traditional Turn-Based: More of a basic combat system where your attacks are represented by cards, rather than unlocking through a complicated skill tree.
  + The player will have basic attack and basic block options which are always available for a low mana cost.
    - Could be a cooldown to prevent using basic attack too much
    - If they
  + The cards they collect will be available to use as well:
    - The player starts with an opening hand in battle
    - They’ll draw a fresh card every turn
    - How can we cap the
  + Mana system that doesn’t refill between battles, to dissuade spending too much mana in an early fight
  + Your cards “refresh” between battles, i.e.: using them in one battle doesn’t prevent you from using them later.
  + When you collect a card, it’s added to your deck and you can’t remove it, so you need to be careful.
* Themes:
  + Sci-Fi (colorful!)
  + Something modern (graffiti???)
  + Really colorful buildings on the outside, but dark and dreary on the inside when you’re in combat
  + Food:
    - You are a chef, with a giant chef’s hat
    - You’re fighting GMO food to find organic ingredients (or cooking utensils)
* What are the enemies?
  + ***FoOd?***
    - Cards could be cooking utensils
    - SKILLET TREE
  + Robots/cyborgs

# Game Design

* World Map
  + Big city with many buildings, some are special buildings.
  + 1 Final boss building. Tallest.
  + 3 boss buildings, 2nd tallest.
  + Heights of buildings convey difficulty
  + Roads to move around
  + 3rd person / 1st person
* Mechanics
  + Global mana pool
  + Cards cost some global mana
    - Discourages exploiting multiple buildings for good cards
  + 2 hands
    - One for basic cards and one for your real hand
    - Can only use one per turn
  + Basic cards
    - Never run out, will regenerate in the beginning of next turn
    - May be enchanted/amplified/strengthened by some cards or some rewards.
  + True hand
    - Have lower global mana cost
    - Draw one card every turn
    - Can play all the cards in hand
  + Rewards at the end of a building
    - Money to access special building services?

# Card Design

* Is there a cost system?
  + Starting Global Mana = 180
* What information needs to be displayed? How important?
* **Definite Rules:**
  + There are no creature cards that stay in play (like “Hearthstone”)
    - There could be summons that behave like AI against the enemy, but nothing like Hearthstone creatures
  + Card Types:
    - Immediate - The card’s effect occurs immediately.
    - Continuous - The card’s effect continuously occurs every turn, may last for X turns.
    - Delayed - The card’s effect happens once after X turns.
  + The player keeps their hand between turns, they don’t discard it at the end of the turn like “Slay the Spire”
  + The player draws a card at the start of every turn
  + You can use multiple cards a turn, but they cost more and more each time
    - While we don’t have a specific cost for each of the cards. The strength of the cards are determined by the rarity, not their individual cost.
    - Could have costs per-card then add a tax for the more cards you play.
  + 3 Basic Abilities:
    - Basic attack
    - Basic defend
    - Some way to recover global mana (at the cost of cards?)
  + How enemies work:
    - They have a basic attack and some skills, their AI will go through a loop of X basic attacks then one of their skills across their turns
      * Skills could deal extra damage, heal the enemy, drain global mana, apply debuffs, etc.
      * May need some rest turns..
    - Can have encounters against multiple enemies (start with one for MVP)
* **UI Features:**
  + How should the hand look and feel to the player?
  + How much information should be shown?
  + Does the player scroll through their hand?
  + What does it look like when the player draws a card?

# Technical Guide

# World Map

* Mostly flat terrain, but will have some slight curves
  1. Easy to deal with if you add foundations to buildings that are enough to cover maximum curvature.
  2. Maybe possible to just extend foundations until they hit the ground to support any degree of curvature.
* Secrets and mini-games
  1. Purpose is to encourage player to explore
  2. Player will be able to take the risk of being found out by patrols in order to have the chance at easy loot
  3. Secrets are kind of hidden in the city. e.g.(glowing window, light under box)
  4. Interacting with secret launches a mini-game
  5. Mini-game should be very quick
  6. Based mostly on luck with some having no skill while others have some
  7. Examples:
     + Wheel of items that spins fast and you press a button to choose an item
     + Dart throw
     + Dice roll
* Patrols
  1. Purpose is to add danger to exploration for balance
  2. The AI should be very simple
     + Randomly go along scanning
     + Scanning is just a simple plane intersection
     + Once scanned, the player must stay out of range from all patrols until they run out of energy
     + Patrols are slower than the player
  3. If player gets too close, they get tased and lose the run
  4. Every time a patrol is alerted, the number of patrols doubles
  5. Every time a boss is defeated, the number of patrols doubles
  6. Every time a building is defeated, there is a small chance for the number of patrols to double
  7. Every time the player fails to clear a building, there is a large chance for the number of patrols to double
  8. The idea is that patrols are hardly a threat in the beginning because you are faster. But exponential growth means that you may be closed in on from all sides if you aren’t careful.
  9. May have special buildings that are really hard to clear to decrease the number of patrols out there.
* City generation will have multiple phases of development:

1. Handmade city
   1. Only 1 city
   2. Small in size
   3. Handmade roads
   4. Handmade buildings
   5. Randomized enemies
2. Randomized buildings
   1. Only 1 road map
   2. Small in size
   3. Hand made roads
   4. Randomized buildings
3. Expand city
   1. Only 1 roadmap
   2. Big in size
   3. Handmade roads
   4. Randomized buildings
4. Expand diversity
   1. Multiple roadmaps
   2. More diversity in randomized buildings
   3. Introduce curvature
   4. Introduce extra buildings (like parks, hospitals, shops)
5. Expand gameplay
   1. Expand roadmaps
   2. Expand buildings and extras
   3. Continue working on curvature
   4. Introduce secrets and mini-games
   5. Introduce patrols
6. Polish gameplay
   1. Finalize roadmaps
   2. Finalize buildings
   3. Finalize extras/areas
   4. Finalize secrets and mini-games
   5. Finalize patrols
7. Extras
   1. Randomize roadmaps
   2. Create clutter and decoration

# Art Bible

Focus on easy to make, low-poly models