

DARK WINTER

Summary

Dark winter is a board game of survival, cooperation and resource management. Players will play four survivors, living in a vulnerable house together during the pandemic and social collapse. They need to survive as long as possible by looting, using their resources and responding to threats and risks.



Inspiration

In 2001, a real-world exercise tested the emergency response to a bio-terror attack on the continental United States. The operation was called: Dark Winter. Within just a few days, the simulation spiraled out of control. The operation predicted a rapid breakdown in essential institutions, civil disorder and massive civilian casualties.

Dark Winter has revealed how vulnerable we've become. By the time patient zero feels the first sore throat, millions of people will already be infected. Just a few days after the pandemic, the power will fail, the shelves will be empty, and the taps will run dry. And once hunger and despair take hold, people will do anything for survival. Our complex world is primed for breakdown. And once the chaos strikes, there won't be resources to save us all.

Rulebook

Set-up



1. Four players have their character status card and a character marker representing their actions
2. Players can use paper clips to mark the number of status on the character status card
3. Place the board in the middle of the table.
4. The house damage marker is used to mark the house damage of 0-5 on the location board
5. Disinfection marker is used to mark the disinfection status of the house on the location board
6. Four kinds of resource cards are stacked on one side to the location board as the resource generation area, and the other side to the location board is used as the resource storage area shared for all players.

Goal

Survive as long as possible.

Character Status



Health (0-9): The physical health of character.

Stamina (0-5): The action points of character.

Cold (0-5)/ Hunger (0-5) / Illness (0-5) / Injury (0-5): Negative status of character.

When the character's health reaches 0 or the cold / hunger / illness / injury is higher than 5, the character dies and quits. When the character dies in the house, the resource storage area adds 4 units of raw food.

Location



1. The locations in the game include the house where the survivors (characters) live and three locations to explore.
2. The status of the house: the degree of house damage (0-5) and whether it is disinfected.
3. Each of the three explorable locations has its own resources and risks, which will be explained later.

Resources



1. There are four kinds of resources in the game: raw food, wood, alcohol and medicine
2. When using resources, move the corresponding resources from the resource storage area to the resource generation area.
3. When looting for resources, the corresponding resources should be moved from the resource generation area to the explorable location, and in the evening phase moved from the explorable location to the resource storage area.
4. When trading resources with neighbors, the obtained resources are moved from the resource generation area to the resource storage area, and the paid resources are moved from the resource storage area to the resource generation area.

The Round

Every round represents a day for the survivors. Each day has of the following phases:

1. Morning phase
2. Daytime activities phase
3. Evening phase
4. Night phase

Morning phase

Steps of this phase:

Getting hungry: For all characters, hunger +1

Getting cold: For all characters, cold +house damage

Infection: For each character who is ill, the other character who's not ill rolls the dice once, If the result is ≤ 2 (if the house has been disinfected: ≤ 1), he will be infected (illness becomes 1). Reset the house to be undisinfected.

Deteriorate: For each character who is ill, his illness +1, but players can choose to consume medicine (medicine -1) to stop the illness growth of the day.

Rested: Health of each character is set to "10-Cold-Hunger-Illness-Injury", and the character dies when the health is ≤ 0 . Stamina of each character is set to health/2(rounded up).

Daytime activities phase

In this phase, players can choose to stay in the house or go out to explore, they cannot do both in a day.

1. House activities

In turn order, players stay in the house can carry out any of the following activities, and the stamina of the character will be consumed (stamina -1) for each activity.

Making a fire: For all characters stay in the house, cold will be cleared (cold =0). Resource consumption: Wood -1, Alcohol -1.

Repairing the house: House damage - 1. Resource consumption: Wood - 1.

Cooking: For all characters stay in the house, hunger -1. Resource consumption: Raw food -number of characters in the house, wood -1, alcohol -1.

Healing: For the character carry out this activity, his injury -2(until 0), but he can't do any other activities in the day. Resource consumption: alcohol -1, medicine -1.

Disinfection: The house becomes disinfected. Resource consumption: alcohol -1

Suicide: The character who carried out this activity dies.

2. Exploring outside

1. Players can choose a location to explore, and they can loot for resources multiple times (if they have enough stamina). Every time they loot, their stamina consumed (stamina -1), and there are risks of looting (players roll dice once every time they loot, and if the results meet the corresponding conditions, they will be punished). There are three locations:

Factory: Lootable: wood / alcohol (choose one option); Risk: if dice ≤ 3 , cold +1.

Supermarket: Lootable: raw food*2 / wood (choose one option); Risk if dice ≤ 2 , injury +1.

Hospital: Lootable: alcohol*2 / medicine*2 (choose one option); Risk: for who is not ill: if dice ≤ 1 , infected (illness becomes 1); for who is ill: if dice ≤ 1 , illness doubled (illness*2).

2. At the end of exploration, if the character is not ill, roll the dice twice. If both times are ≤ 2 , the character will be infected (illness = 1).

Evening phase

Neighbor visit: provide random resources with their quantity equal to the number of surviving characters. The types of resources are determined by rolling four dice (1: raw food, 2: wood, 3: alcohol, 4: medicine). Players can exchange the same number of resources in the resource storage area.

Killing the neighbor: Players can choose to kill the neighbor when the neighbor visits. They can get all the resources provided by the neighbor and 4 units of raw food (directly into the resource storage area) for free, but cancel the neighbor visit in the following game process.

Night phase

Roll a D4 dice to determine which one of the following four night events happens.

1. Rioter attack: players can choose:

A. House damage +1, at least two players' stamina -1 and injury +1;(if at least two players have stamina left)

B. Lose half of their resources (the resources in the resource storage area become the previous resources / 2, rounded down)

2. Snowstorm: house damage +1, for all characters, cold +1

3. House materials falling: fall all characters, injury + (1 + house damage / 2 (rounded down))

4. Peace night: nothing happens

Test reports and updates

Test report 1

Date

February 23th, 2021

Version

Prototype 1

Players' Name

Yuhang Xing, Yexiang Zhou

Play time

10 turns, about 90 mins

Findings/thoughts

1. The core game mechanics are basically positive feedback.
2. When players' status is too difficult to recover, the situation deteriorates rapidly.
3. When encountered rioter attack and not prepared to defend (no enough stamina reserved), players had a strong sense of depression and crisis for losing resources (this fits the experience of design goals).

Areas that could be improved

1. The phase of hunger increasing is not clear, which affects the calculation of health.
2. It is not convenient to use "chess pieces" to mark the status, because they are easy to be knocked down.

Suggestion from players

1. The limitation of two units of stamina for healing makes players unable to heal when they are in poor status, and it is counter intuitive. It's better to remove the stamina consumption for healing.
2. Mechanics that can be added: characters will generate raw food after death (it means others can eat the body of dead man). This kind of benefits can give players motivation to sacrifice.



Update 1

1. Props update: Redesigned the character status card and added the location board.
2. New mechanics: "Morning phase", used to update the status of characters before calculating health and stamina.
3. When the character dies, he will generate two units of raw food, which fits the emotional experience of the game backstory and gives players the motivation to sacrifice.
4. Remove the 2 units of stamina requirement for healing and add the alcohol consumption. And the injury recovery from healing is "- 2", so as to increase the benefits to balance the cost of inactivity for a day.
5. add "Peace night" into "Night events"
6. Move medication taking from "Daytime activities" to the "Morning phase", to make the rules clearer and easier to understand.

Test reports and updates

Test report 2

Date

February 25th, 2021

Version

Prototype 2

Players' Name

Xueyan Wang, Yexiang Zhou

Play time

6 turns, about 55 mins

Findings/thoughts

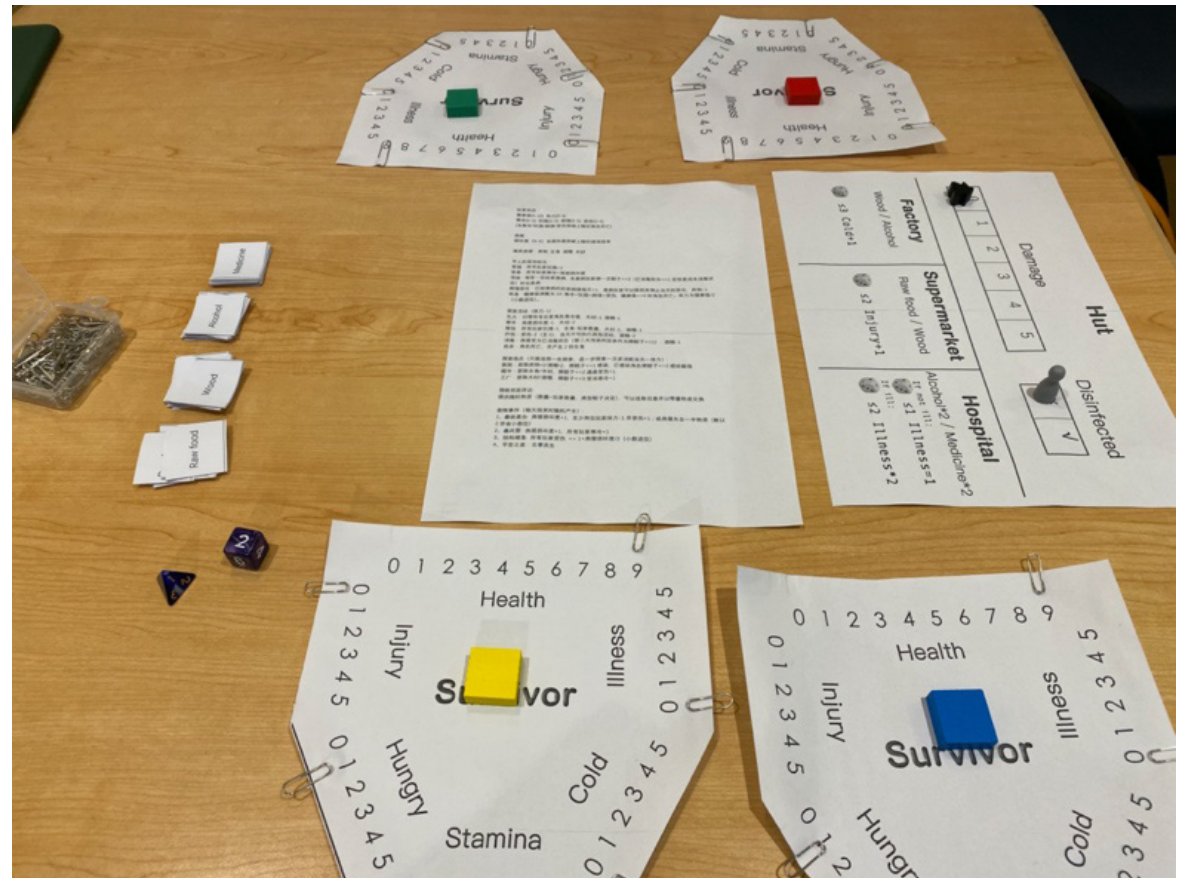
1. At the beginning, players chose not to reserve stamina to for the rioter attack at night, and they got attacked on the first night, which led to the shortage of resources in the early time.
2. Because of the shortage of wood, the house cannot be repaired for a long time, and players was suffering cold for long, causing a very negative situation for them.
3. For most of the time, medicine is useless, because nobody is ill.

Areas that could be improved

1. Increase the quantity of raw food can get in supermarkets, because hunger increasing for every day will lead to great demand of food.
2. Reduce the consumption of wood for repairing house, because wood is lack in later stage.

Suggestion from players

1. Add the chance of getting illness in factory and supermarket, to increase the opportunity of usage of medicine and infection mechanics.
2. Add new use of medicine to increase the opportunity of usage of it at early stage.



Update 2

1. Reduce the wood consumption for repairing house, from 2 to 1, to increase players' decision spaces and reduce the difficulty in the later stage.
2. Increase the quantity of raw food can get in supermarkets from 1 to 2, in order to balance and meet the long-term and large amount of food demand. At the same time, increase the quantity of raw food generated by dead body from 2 to 4, to balance the benefits of death proportionally.
3. Change the resource consumption of healing from alcohol -2 to alcohol -1 & drug -1, so as to add new use of medicine and give players motivation to go to the hospital at early stage.
4. Change the injury effect of house materials falling from "1 + house damage / 2 (round up)" to "1 + house damage / 2 (round down)", to prevent high punishment in the early stage of the game.

Test reports and updates

Test report 3

Date

March 1st, 2021

Version

Prototype 3

Players' Name

Jiancheng Zhu, Yuchen Yao, Yuhang Xing, Yexiang Zhou

Play time

11 turns, about 77 mins

Findings/thoughts

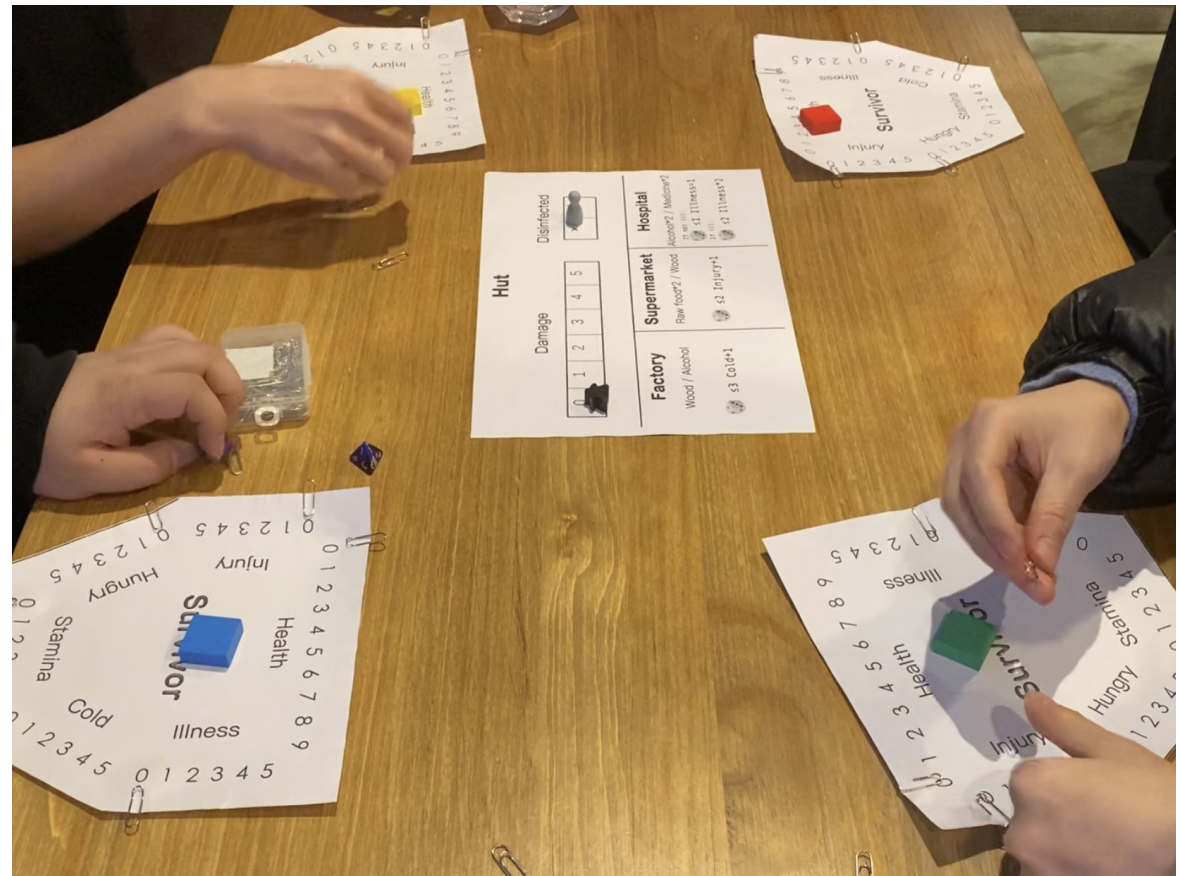
One character committed suicide on the seventh day because he was in poor condition (lack of supplies, unable to survive in the next day, and the illness would be the risk of infecting others), and generated four units of raw food, which kept others alive for the next day.

Areas that could be improved

Execute house activities first, because prevent the players at home from making decisions according to the experience of the players exploring outside.

Suggestion from players

1. Let characters can kill the neighbor to get 4 points of raw food, for providing more choices.
2. Enrich the content of the game by: random mission, characters' skills, personal goal
3. Staged reward (in the 5th day or the 10th day for example) can be added as a short-term goal to drive players

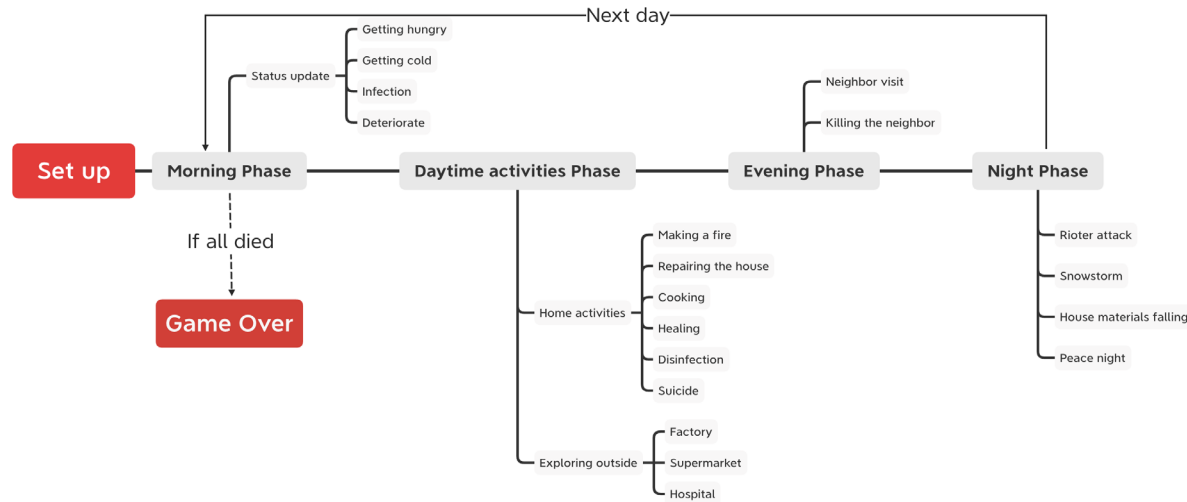


Update 3

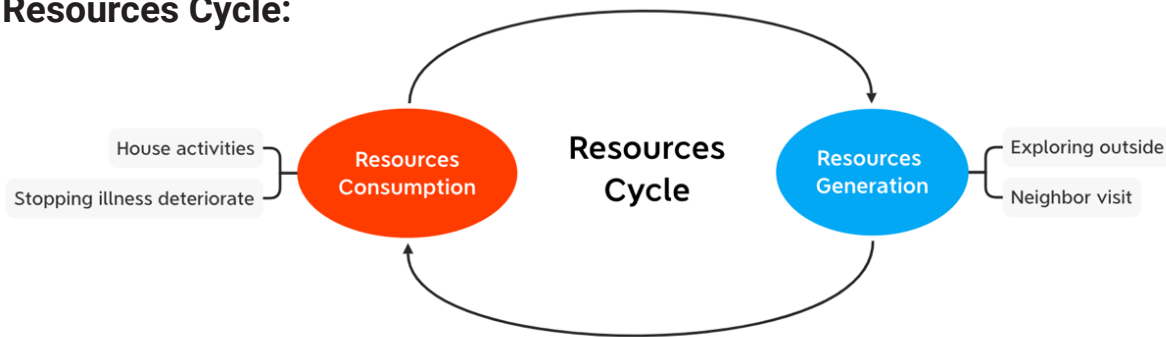
1. Add the infection mechanics for characters exploring out of house, to increase the opportunity of illness and related mechanics to take effect at early stage. The condition is rolling the dice twice, if both ≤ 2 , get infected (means have chance of 1/9 to get infected).
2. Add mechanics of killing neighbor. Players can choose two of them to "stamina -1 & injury +1" when the neighbor visit, and they will get 4 units of raw food and all the resources provided by the neighbor, the neighbor visit will be cancelled in the game process from then on.
3. Visual art design of props.

Game Flow and Gameplay Situation

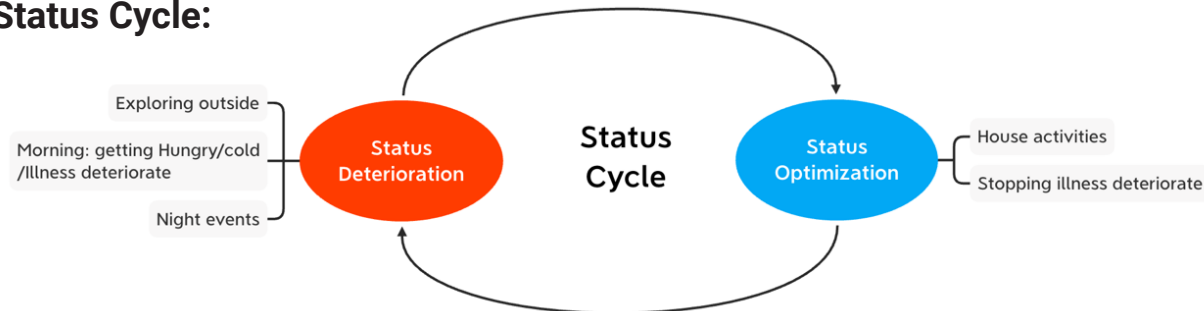
Overall Game Flow:



Resources Cycle:



Status Cycle:



Interesting gameplay situation

1. In playtest 3, one character committed suicide on the seventh day because he was in poor condition (lack of supplies, unable to survive in the next day, and the illness would be the risk of infecting others), and generated 4 units of raw food, which kept others alive for the next day.

2. In playtest 2, players chose not to reserve stamina to for the rioter attack at the first night, and they got attacked on the first night, which led to the shortage of resources in the early time. And it makes the survival time in this playtest very short.

3. Similar thing happens in playtest 1, when encountered rioter attack and not prepared to defend (no enough stamina reserved), players had a strong sense of depression and crisis for losing resources (this fits the experience of design goals).

4. In the later stage of playtest 3, players had to kill the neighbor to get more resources, because they didn't have enough health and stamina for the next day's looting.