

Computer Games Laboratory

Custodian by Qoogle

II Prototype

Zixiang Wang Mingyang Li Anil Celik Maral Tatev Tsokolakyan

Winter Term 2022

2 Prototype Phase

2.1 Physical Prototype



Figure 5: Prototype testing

2.2.1 Custodian And Zombie Enemy

The models of the custodian and zombie are made by origami. The one in the shape of a green box in the following picture is the zombie enemy and the other colorful one is the custodian. Since these two models will be used and placed on the game board to demonstrate the gameplay during one of the combat levels, the size of them should match the size of one grid on the game board.

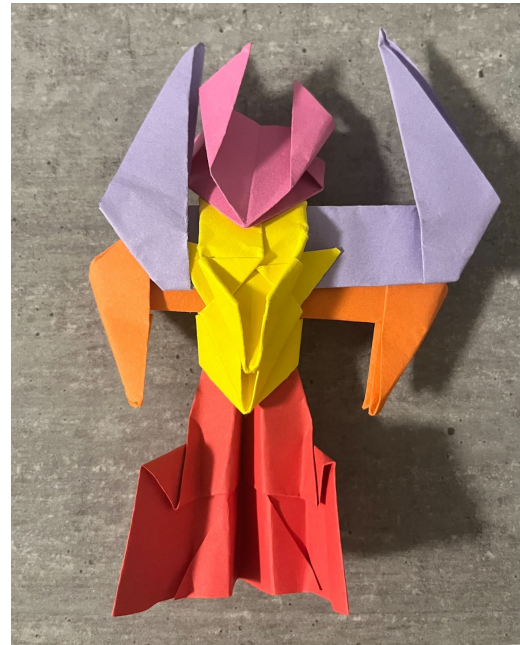
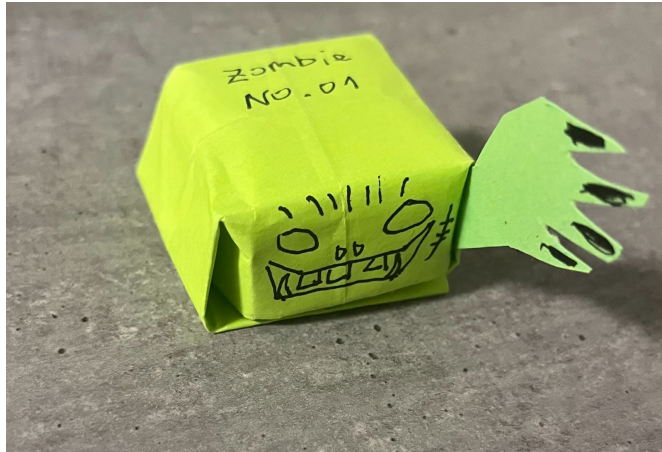
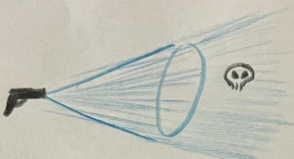


Figure 6: Zombie enemy(left) and the custodian(right)

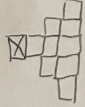
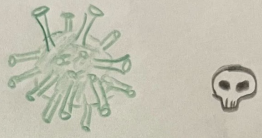
2.2.2 Cards

After a short brainstorming in the first meeting of the prototype phase, we designed 12 cards for the player (11 cards in the initial deck plus 1 additional empty template card representing the duplication card) and 8 cards for the zombie enemy. In order to make the gameplay prototype better and more representative of the actual gameplay, the cards were designed with various effects, ranges and rarities. One issue to note is the power balance between each card as currently we don't exactly focus on this issue. To be able to achieve this, we need to do more tests.



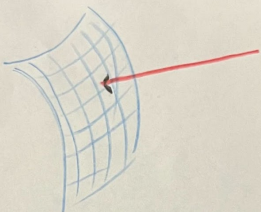
Cone Attack

Energy Consumption: 3
 Play Speed: 4
 Damage: 8, 4, and 2 respectively for the closest and farthest range
 Area of Effect: Cone with a width of three in the chosen direction. So, 1, 3 and 5 grids are affected respectively.


Infection

Energy Consumption: 2
 Play Speed: 4
 Damage: 8
 Area of Effect: Active in one grid radius.
 Special Effect: 1 damage for each timestep that lasts 6 timesteps



Force Field

Energy Consumption: 2
 Play Speed: 1
 Damage Absorption: 3
 Duration: Infinite



MOVE UP

Energy Consumption: 0
 Play Speed: 1

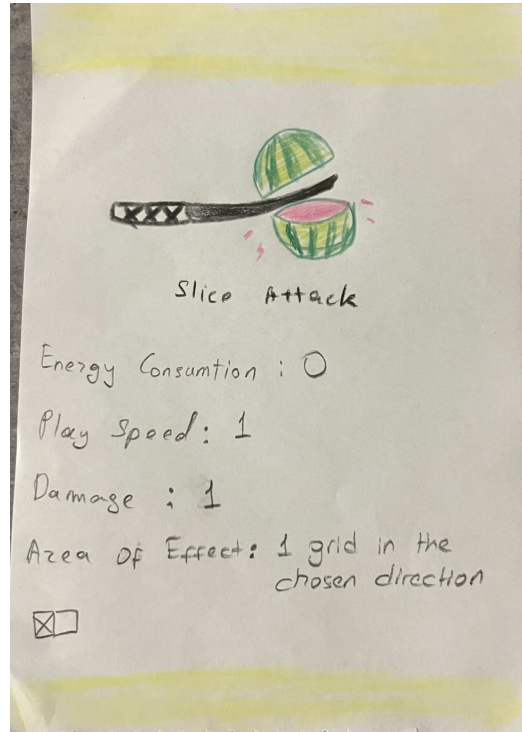


Figure 7: Card Prototype

Card menu in prototype:

For the player:

- Basic Movement Cards: Up, Down, Left, Right
- Basic Attack Cards: 2 Headbutt Attack Cards
- Basic Energy Restoration Card: Restores a certain amount of energy
- Common attack card: A thrusting attack which damages a chosen enemy within 1 grid range
- Rare attack card: Slashing Attack Card which damages enemies on 3 adjacent grids within 1 grid range
- Common Utility Card: Force shield which absorbs a certain amount of damage of the next incoming attack.
- Legendary Utility Card: Chain Hook. It can hook an obstacle or enemy within the ten grids in the chosen direction. Additionally, it stuns the enemy for one timestep

- Duplication Card: Copies the chosen enemy ability

For enemy:

- Basic Movement Cards: Up, Down, Left, Right
- Common Attack Card: Slice attack which damages a selected target within 1 grid range.
- Common Attack Card: Forward rush attack that instantly moves the enemy two grids in the chosen direction and damages the player if the player is encountered during this movement.
- Rare attack card: Cone attack which has a width of three grids in the chosen direction. So, 1, 3 and 5 grids are affected respectively. Additionally, the damage falls off as we move along cone attacks width.
- Legendary attack card: Infection card which deals instant and applies damage over time. Its range is one grid.

In the actual game, we plan to color code the cards as follows:

- Basic cards will be colorless
- Common ones will be gray
- Rare ones will be blue
- Epic ones will be purple
- Legendary ones will be orange

2.2.3 Game Board And UI

To test the game's playability, we first draw a simple 7 x 7 minimap on an A4 paper (see Figure 5). The game interface is also marked on paper with a slider (see Figure 8). Additionally, the bars for the player and enemy energies, custodian's armor, and zombie's health are demonstrated by sliders as well (corresponding respectively to blue, red, and green bars in Figure9).

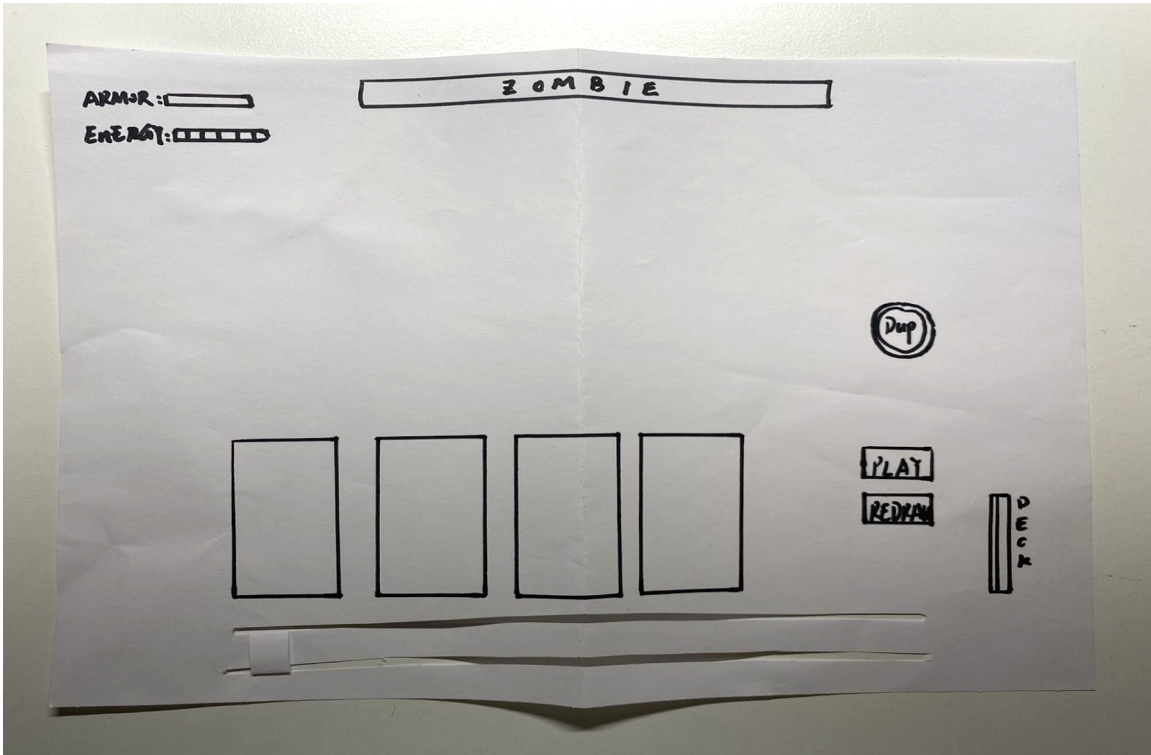


Figure 8: Prototype UI

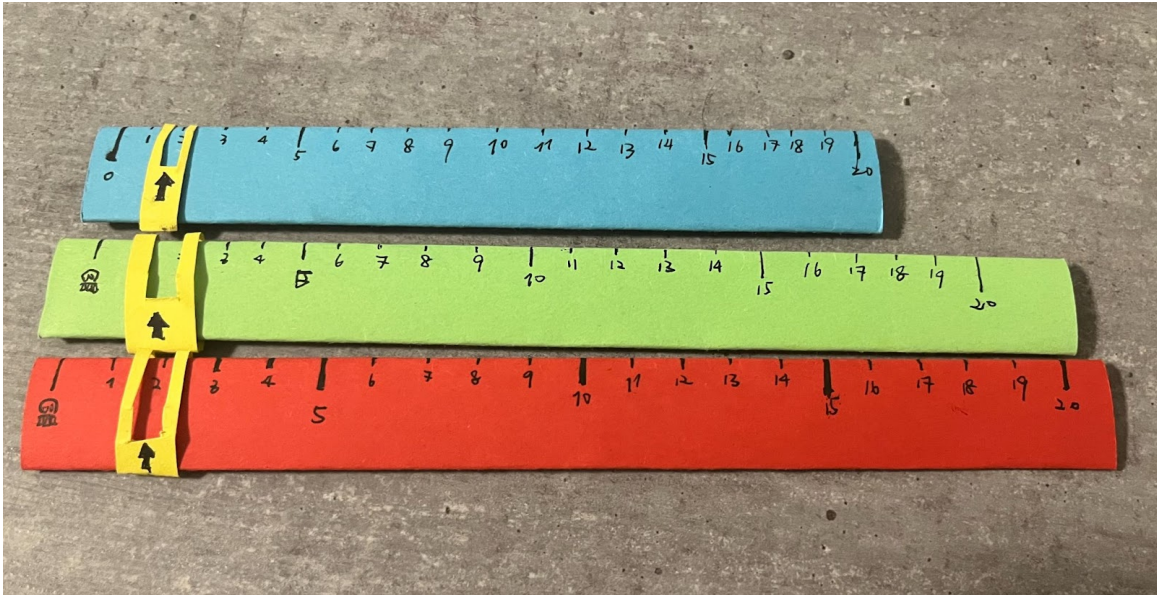


Figure 9: Sliders for the custodian armor and energy and zombie health

2.2 Game Experience

To truly experience the design of the game mechanics and the balance of the cards, we played a combat level which exists in our game. One teammate played the custodian and one other teammate played the Zombie enemy AI. Others kept track of the UI elements such as the energies, armor, health and timeline.

During the gameplay, we adjusted some elements such as card effects and costs if we all thought they were not properly balanced. Additionally, we tested how our hybrid way of applying time felt. We additionally tested how our cards worked with different play speeds in such a hybrid system.

Lastly, we tested the overall map design and how playing using a top down camera would feel. We came to the conclusion that all of these elements were largely working as intended barring some minor elements which we will adjust. We had fun while playing the game and felt competitive.

2.3 Design Revision

2.3.1 Revision From Prototyping

After the initial prototype testing, we had a better idea of how big each game element should be and how cards should interact using our hybrid time system. The whole physical prototype should contain the following components:

- Game Board (Larger and more durable)
- Models of the Custodian and Zombie
- A slider for the timeline
- Sliders for the Custodian armor, Custodian energy and energy and health of the Zombie
- Cards for both the custodian and the zombie

Obstacles such as trees and rivers will be drawn on the game board as well as other things such as bridges and houses.

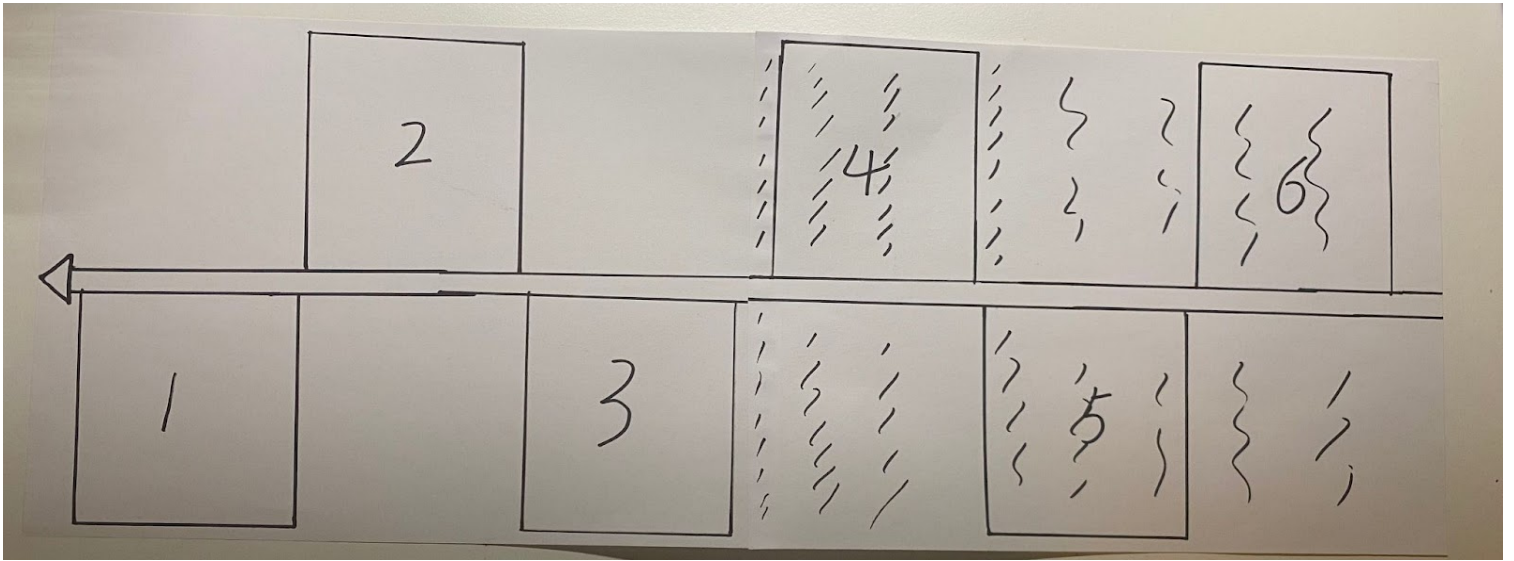


Figure 10: Timeline

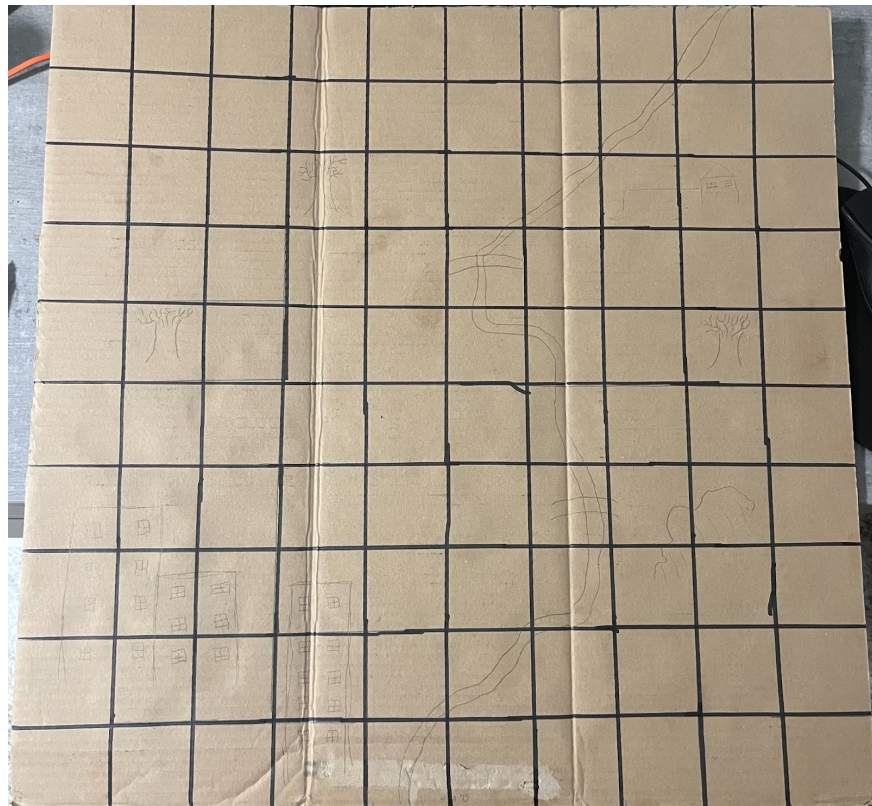


Figure 11: Updated 10 x 10 Prototype Board

2.3.2 Revision From Comments

Feedback: A common feedback from other audiences is that they considered the game more likely to be a turn-based game rather than a real-time strategy game.

Answer: The game is a speed-based real-time game because during the waiting time (the card is initialized but the effect is not yet performed), the other side can play as many cards as he/she wants, as long as his/her cards are fast enough (able to be initialized and performed within this time frame). In turn-based games, each agent completes an action and then the turn to take action is passed to the next agent. However, each agent can play at the same time in our game. Which action will be performed first and in which order depends entirely on the speed of the action that is to be taken.

Feedback: I'm just a little worried that your game might get too complicated. I think two values would be enough, since armor can be substituted with health and the size of the deck usually balances itself because you don't draw the cards you want.

My suggestion would be to introduce symbols to your card effects. "Legends of Runeterra", for example, uses symbols with keywords on their cards and, due to that, you know the most important properties of a card right away.

Answer: We are looking into options on how to make the most intuitive card designs so that players can develop muscle memory as they play instead of having to analyze each one every time the player wants to play. Additionally, we might reduce the number of resources as we do more tests. However, we feel that such changes can be easily made later so there is no need to rush it.

Feedback: Con: The complexity of your game might become overwhelming to the players. There seems to be a lot going on, especially at the same time. This especially comes into play during a battle when you are not only managing your cards, the enemies' cards but also duplicating and using your enemies cards after duplicating them, probably not even knowing what they actually do at the time unless you can pause and then check which would also interrupt the general flow of game.

Feedback: The time flow of our game is similar to grand strategy games such as Stellaris, EU4 and Hearts of Iron. In those games, you can pause the game or increase and decrease the game speed. This allows each player to adjust the speed according to their skill levels. Additionally, the game will automatically pause for certain events and show a pop up or a similar thing.

Lastly, we plan to have difficulty levels for our game and the only actual real time version will be optional as a hard difficulty. In this game mode, you will not be able to pause the game and it will flow at a certain speed that can't be adjusted.

Feedback: The dungeon progression sounds a bit too similar to Slay the Spire

Answer: We wanted to take inspiration from a Slay the Spire's progression mechanic to have a solid starting point. If we are fast enough with our game development, we can add more interesting levels and progression paths. This is something we are actively thinking about and we will test some ideas.

Feedback: Adding a card to the deck after the duplication process is finished and being able to use it in the next levels might result in building a dominating deck too quickly, especially if it is a rare/epic/legendary card.

Answer: We plan to balance the duplication mechanic by giving the player only limited resources and slots to duplicate so that they will have to really think on what they really want to duplicate.

2.4 Task Timeline (updated)

