CISC496 GROUP 4

TROUBLE MAKER

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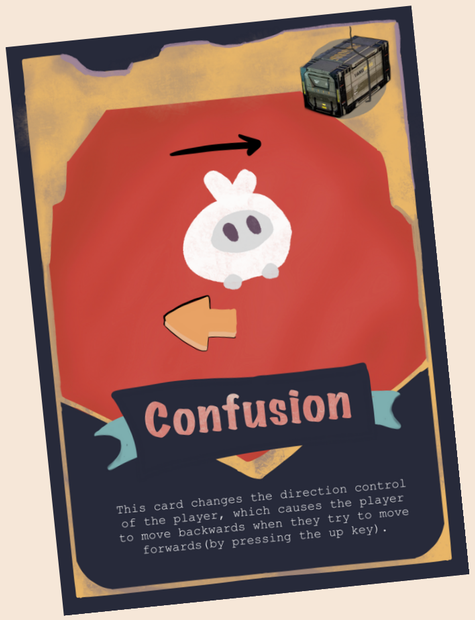
TROUBLE MAKER

Introduction



INTRODUCTION

Trouble Maker is a 1v1 competitive turn-based strategy game that takes place in a hedge maze, where one player (the Challenger) needs to find their way out of the maze, while the other player (the Controller) tries to stop him.

Novel idea:

- the entire game experience of the Challenger depends on the Controller.
- Combines a battle game and a maze game with a card game.

Novel technology:

- Networking
- Evaluating Unity’s new Netcode for GameObjects package

DEMO

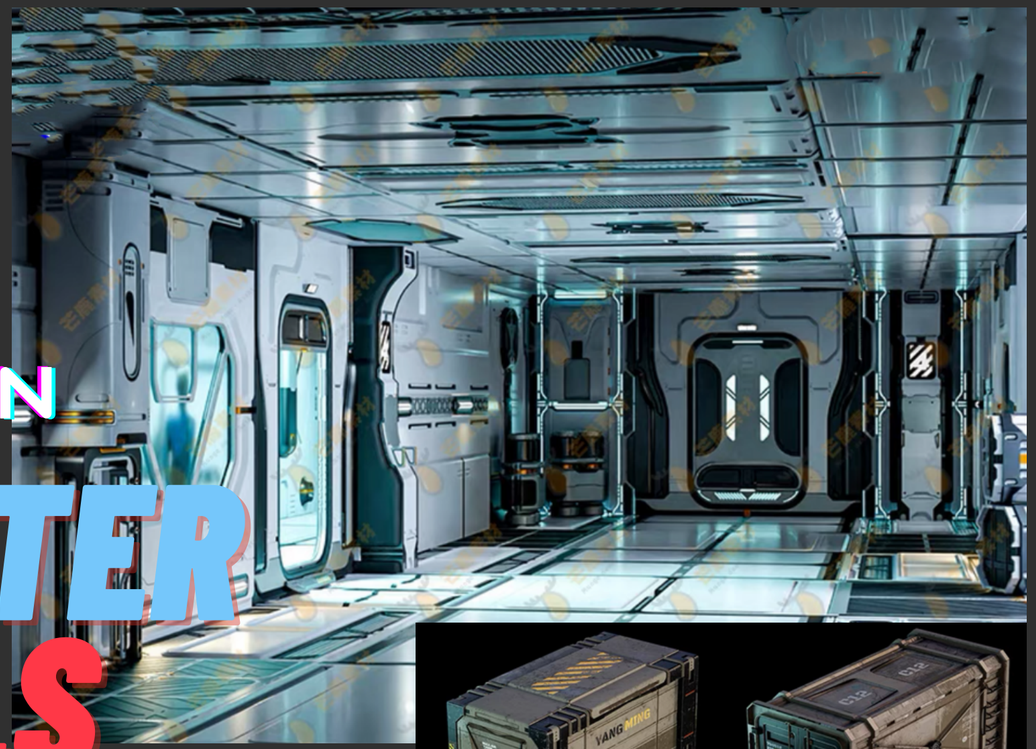
https://youtu.be/0jfhUdDE1WY

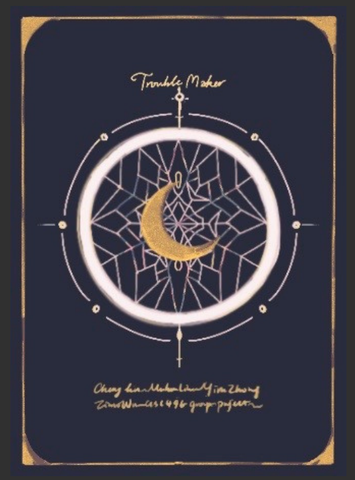
GAME DESCRIPTION

- Trouble Maker is a ten-minute turn-based game.
- In each round, players get random cards with different features. They can apply them in their turns.
- The Controller wants to stop the Challenger from going to the final point, and the Challenger wants to get out of the maze.
- Both players get 10 seconds in each turn to either move or apply cards.

IDEAL VERSION

CHARACTER & MODELS




Trouble Maker

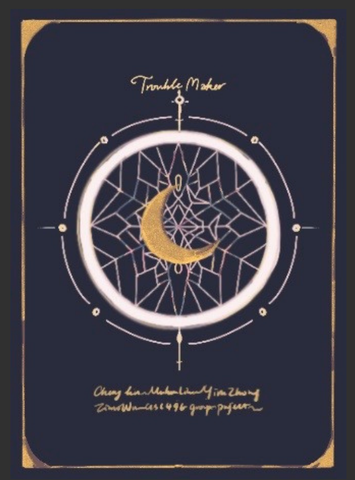

x3
Speed up
You can speed up on your turn.


Invisible
You will be invisible in your turn, and your position will not be shown on the map.


Increase time
Yoh can increase your turn time.

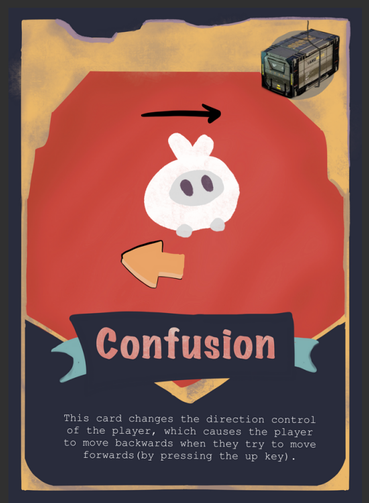

Cleanse
Cleanse will remove a random active control effect such as slow down or blinding, allowing the player to continue pursuit or escape.


Peep up the walls
You will grow higher and are allowed to take a look at where the finish line is at current turn.


Trouble Maker


x2
Slow down
You can slow down on your turn.


Blinding
The player will not see the scene clearly, as there will be fog in front of their vision.


Confusion
This card changes the direction control of the player, which causes the player to move backwards when they try to move forwards(by pressing the up key).


E
Portal
This card moves the player to a specific position on map.


F
Erase
This card erases the marks that the player spreads on the wall to keep track of where they're going.

TROUBLE MAKER

Evaluation

Evaluation

Test Design

Testers:

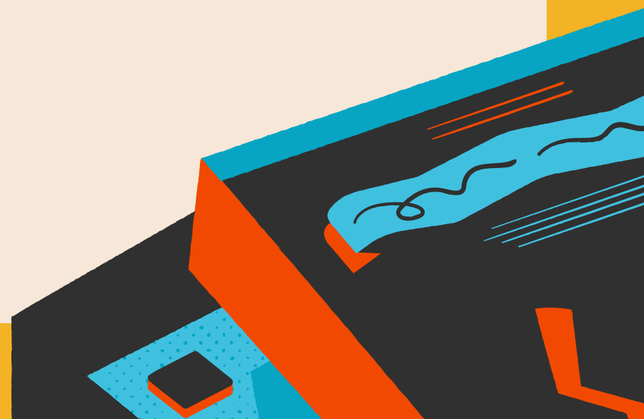
- Roommates
  - 2 with PC game experience
  - 2 without PC game experience

Process:

- Set up the game for the testers and tell them the instructions verbally.

Aim:

- Test with people who are not familar with our game
- collect feedbacks from them
  - see if they can understand the basic game rules
  - see if they think the game idea is fun
  - find parts that need to be fixed



Evaluation

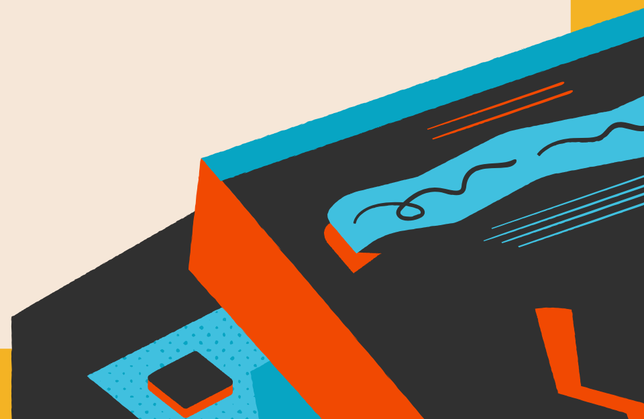
Comments from Testers

The Controllers' Feedback

1. have no clue how to play the game
2. cannot find the Challenger
3. lack of instructions

The Challengers' Feedback

1. hard to turn around the point of view
2. have no idea when the turn is over
3. the balance of card features



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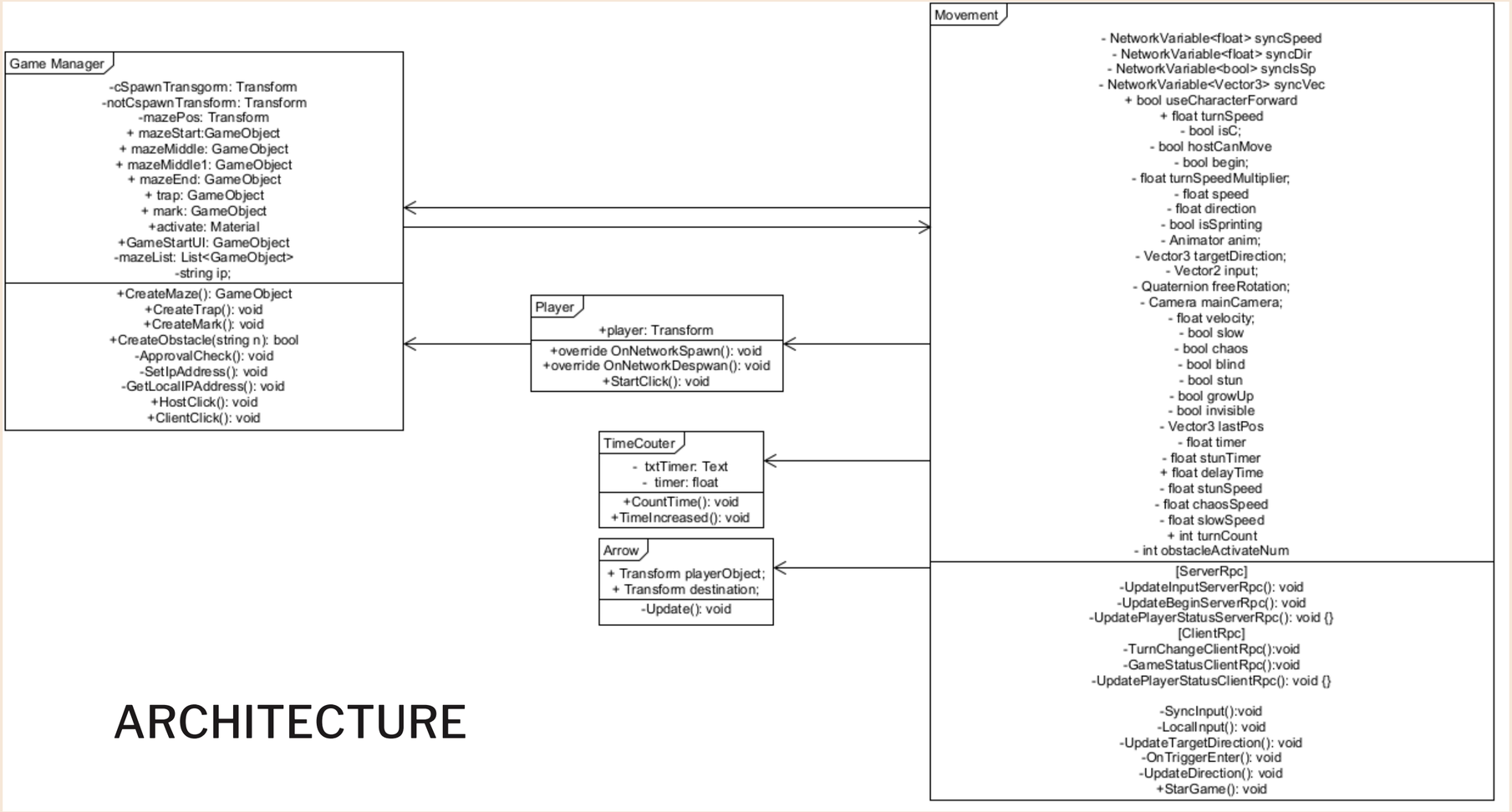
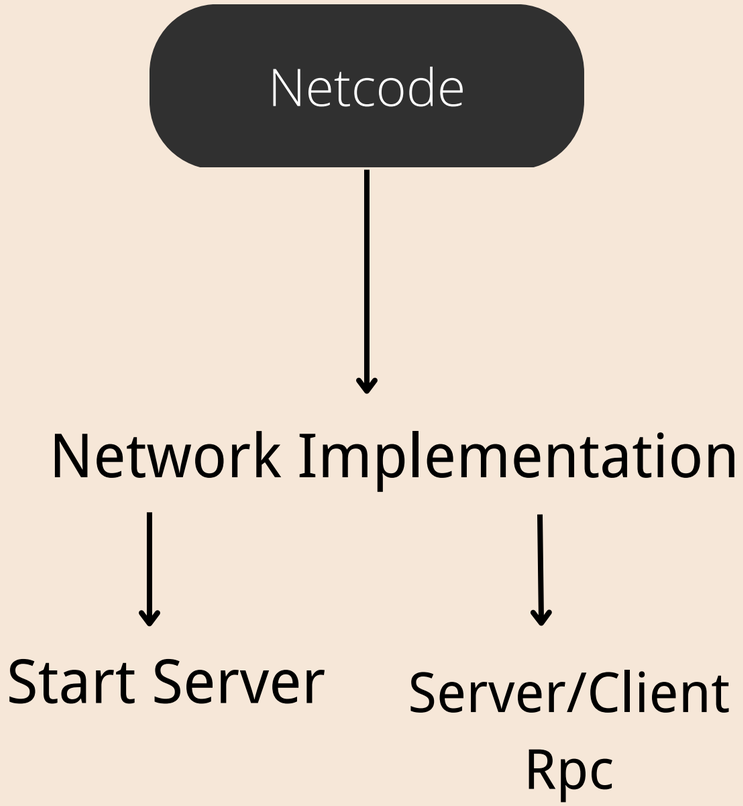
Implementation Design

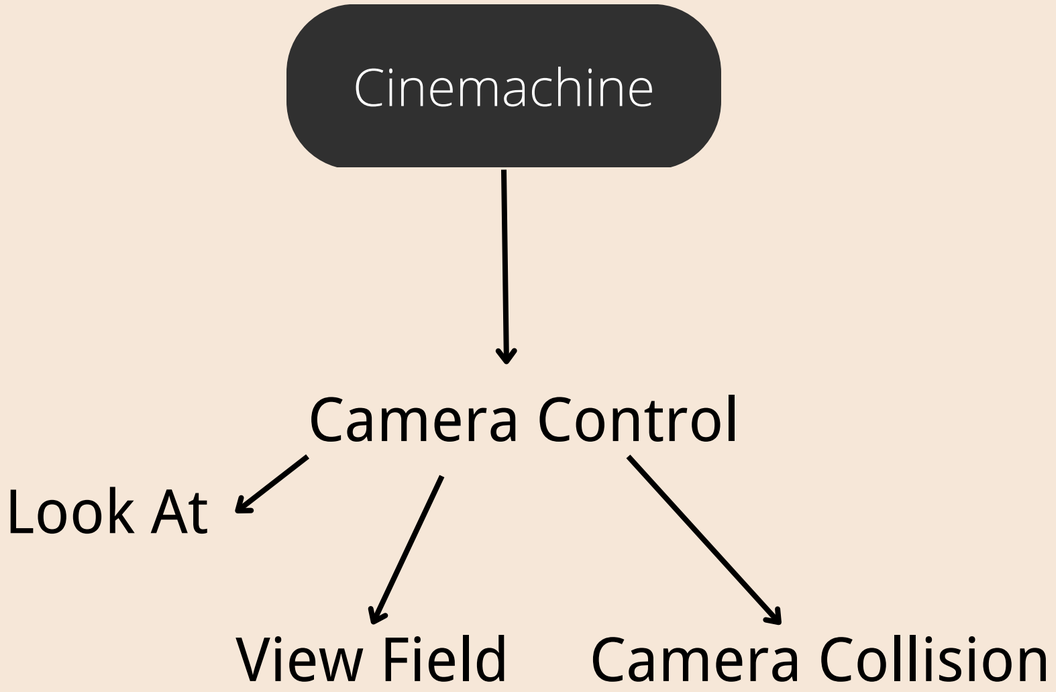
Game Design



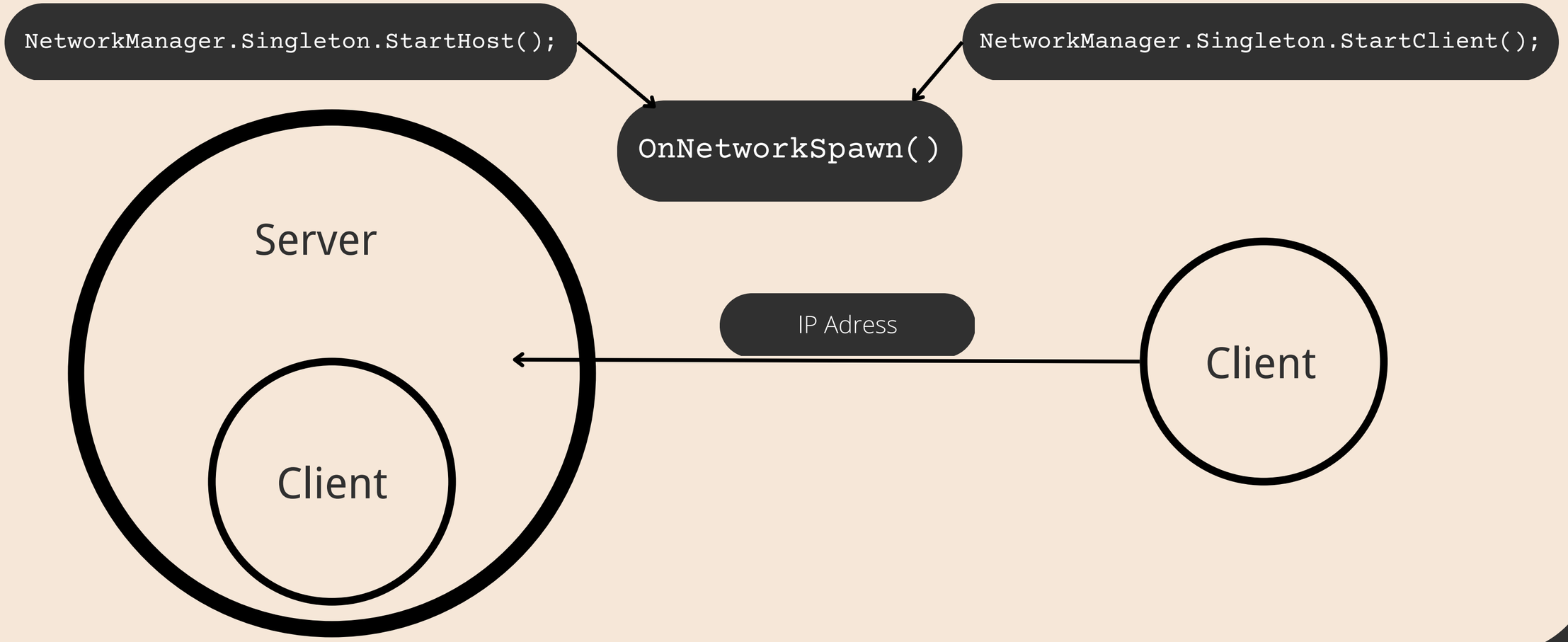
ARCHITECTURE

External Packages





NETCODE


NetworkManager.Singleton.StartHost();
NetworkManager.Singleton.StartClient();
OnNetworkSpawn()
Server
Client
IP Adress
Client

NETCODE

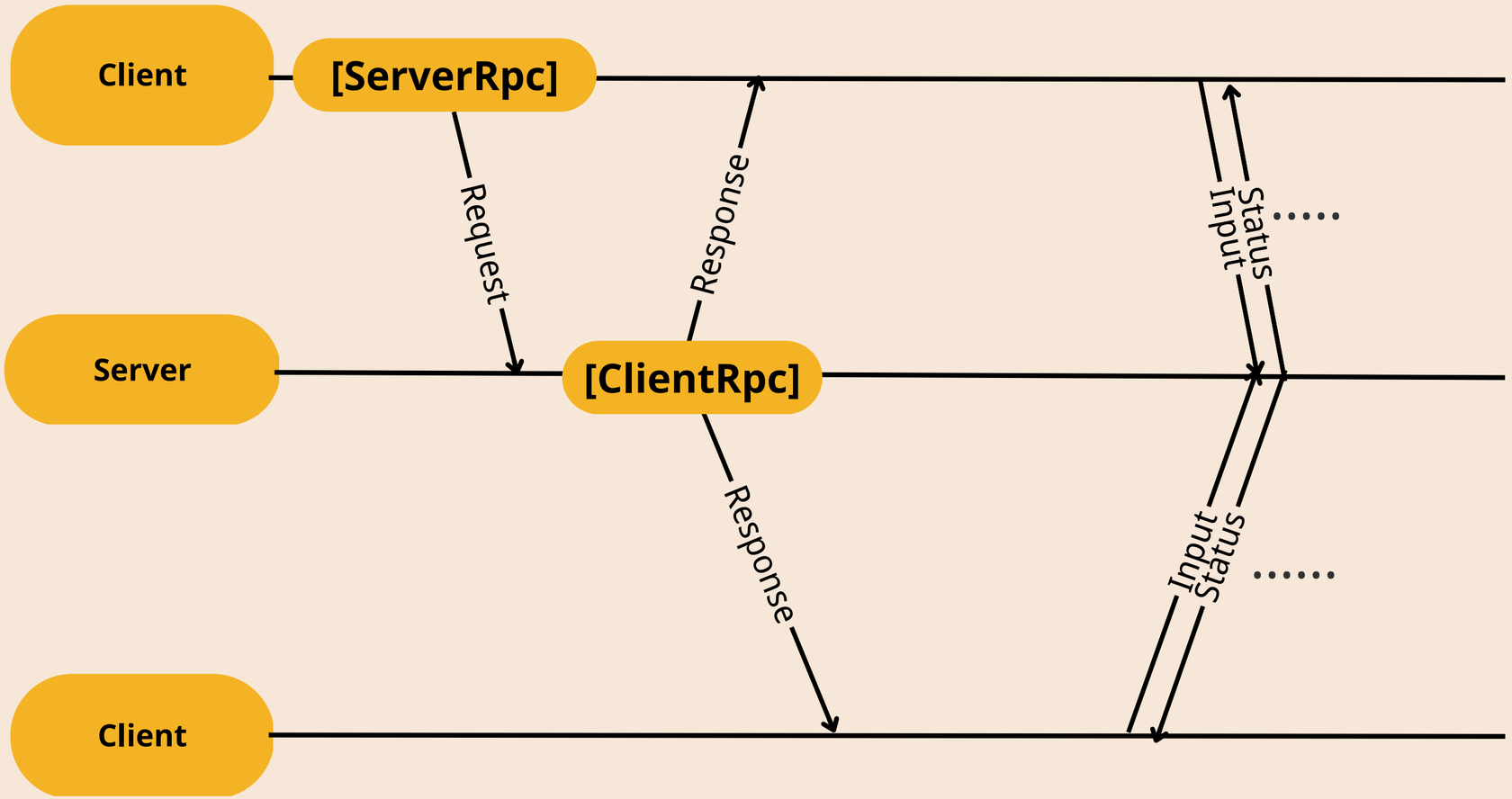
[ServerRpc]

```
void UpdateInputServerRpc(float speed, float dir, bool isSp, Vector3 vec,
      Quaternion rot) {
      syncDir.Value = dir;  syncSpeed.Value = speed;
      syncIsSp.Value = isSp; syncVec.Value = vec; syncRot.Value = rot; }
```

```
if (IsLocalPlayer)
   LocalInput();
if (!IsLocalPlayer)
   SyncInput();
```

```
void SyncInput() {
  anim.SetFloat("Speed", syncSpeed.Value);
  anim.SetFloat("Direction", syncDir.Value);
  anim.SetBool("isSprinting", syncIsSp.Value);
  transform.position = syncVec.Value;
  transform.rotation = syncRot.Value; }
```

SERVER CLIENT



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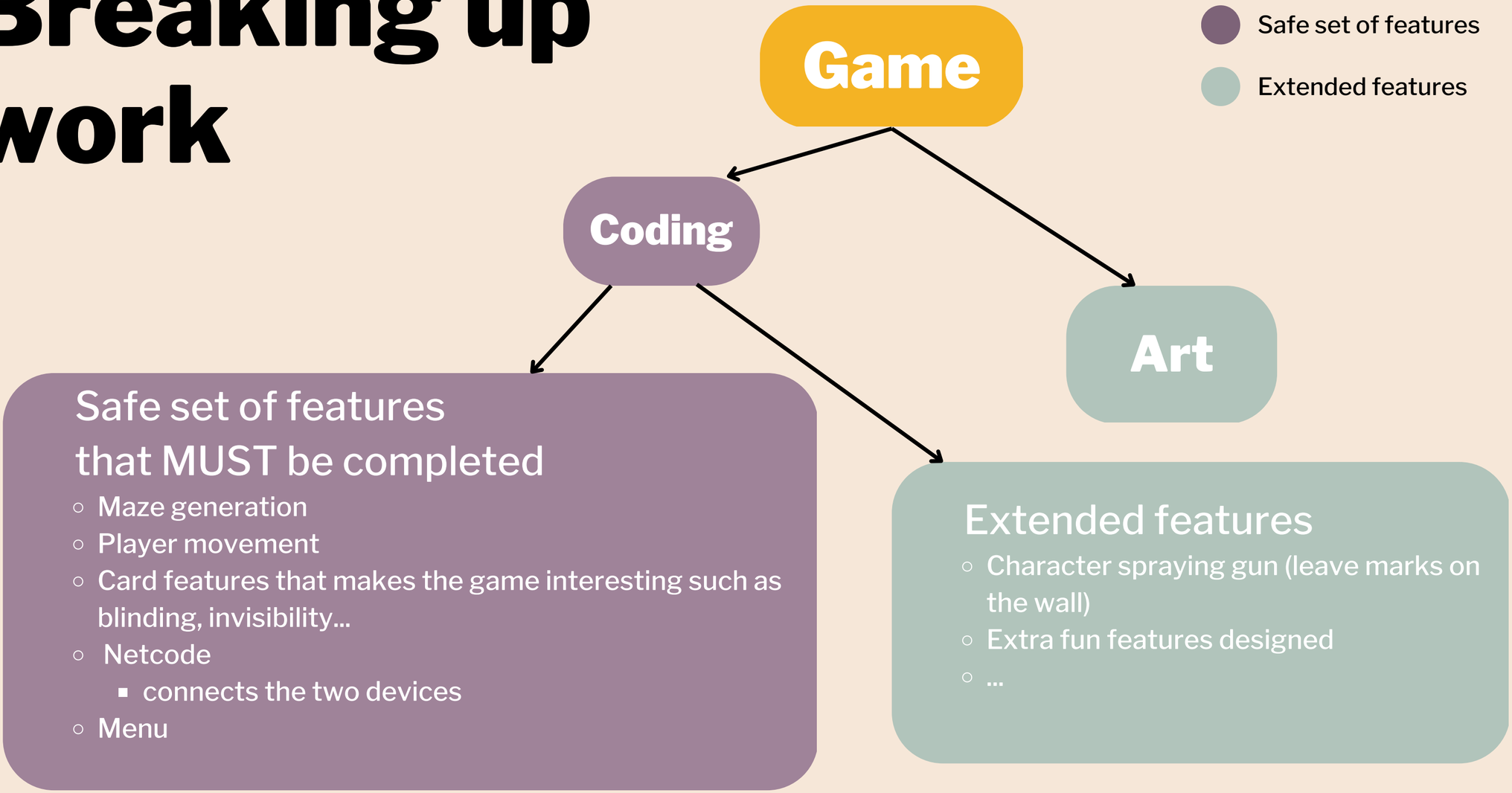
Project Milestones

Breaking up work



Trello Board

Phase 1 (Jan. 30th - Feb. 13th)

- creating map, display maze (setting collision box)
  - 2月5日
  - YZ ZW
- menu system
  - 2月10日
  - ML YZ
- Complete
  - create a repository, upload to GitHub
  - 1月24日
  - LC
- Complete
  - networking (Netcode for GameObjects package)
  - 2月5日
  - LC
- Complete
  - menu graphics
  - 2月5日
  - ZW
- Complete
  - buying/free models for avatar
  - YZ ZW
- ＋ 添加卡片

Phase 2 (Feb. 14th - Feb. 27th

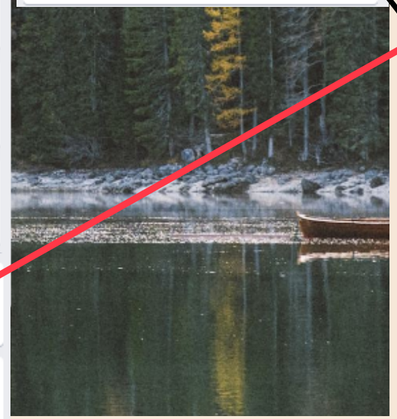
- win game (time limit)
  - LC
- Complete, Needs modification
  - 10 second round setting
  - LC
- In progress
  - card game algorithm
  - 0/12
  - LC ML
- In progress, Needs modification
  - timer system
  - LC
- In progress
  - fit card system into the game
  - LC ML
- In progress, Needs modification
  - character movement (walk/jump, run)
  - 1
  - YZ ZW
- In progress
  - pathfinding (the arrow that guides the Challenger)
- Complete
  - User evluation 1
  - 2月26日
  - ML

Phase 3 (Feb. 28th - Mar. 13th)

- showing a 3D scene in 2D
  - LC ML
- In progress
  - character spraying gun (leave marks on the wall)
  - LC ZW
- In progress
  - character animation using mixamo.com
  - YZ ZW
- End game interface
  - 2
  - YZ ZW
- add blender models to Unity
  - YZ ZW
- avatar modelling
  - YZ ZW
- User Evaluation 2
  - 3月5日
- User Evaluation 3
  - 3月12日

Phase 4 (Mar. 14th - Mar. 28th

- Playtesting ->
- Difficulty balance
  - 1
  - LC ML YZ ZW
- User Evaluation 4
  - 3月19日
- User Evaluation 5
  - 3月26日
- User Evaluation 6
  - 4月2日



PlayTesting

- Complete
  - User evluation 1
  - 2月26日
  - ML
- Difficulty balance
  - 1
  - LC ML YZ ZW
- User Evaluation 2
  - 3月5日
- User Evaluation 3
  - 3月12日
- User Evaluation 4
  - 3月19日
- User Evaluation 5
  - 3月26日
- User Evaluation 6
  - 4月2日

Week-to-week Plan

Week	Plan	Playtesting
February 28th - March 6th	• card system • timer system (try to come out with a solution for the time waiting) • fit card system into the game • avatar modelling & map modelling	Group testing (the four of us) - test the card system and the new timer system
March 7th - March 13th	• character animation using mixamo.com • showing a 3D scene in 2D (fix camera angles for Controller) • End game interface • avatar modelling & map modelling (cont.)	Group testing (the four of us) - test camera angles - character animations Friends from previous testing - test if previous issues are fixed
March 14th - March 20th	• Implementation features that didn't complete in the last phase(just in case we overestimate our abilities) • Refinement • Make our game more attractive and user-friendly (mainly game UI)	Group testing (the four of us) - test new game features Friends from previous testing - test if previous issues are fixed Players that haven't play the game before - no instructions given verbally

Week-to-week Plan

March 21st - March 28th	• Difficulty balance - use previous feedbacks to determine the difficulty • Tutorial and instructions of the game • poster	Group testing (the four of us) Friends from previous testing - test if previous issues are fixed Players that haven't play the game before - no instructions given verbally
March 29th - April 5th	• poster • user testing and modifying - test the complete game	Group testing (the four of us) Friends from previous testing - test if previous issues are fixed Players that haven't play the game before - no instructions given verbally
April 6th - April 10th	• user testing and modifying • Last refinement	Group testing (the four of us) Friends from previous testing - test if previous issues are fixed Players that haven't play the game before - no instructions given verbally

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Thanks for listening!

Discussion

ANY QUESTIONS?