DoubleHand Team:

SubDate: May 28, 2023

Short description:

- dApp staking rewards distribution solution with NFT game

1. Introduction to DoubleHand

Welcome to our immersive NFT gaming platform, a web-based application meticulously built on the cutting-edge Astar Network. This unique decentralized application (dApp) provides an innovative staking rewards distribution solution designed to make the dApp staking process more approachable and entertaining for users.

Our formidable team, consisting of three seasoned developers and a dedicated designer, bring their wealth of experience from building highly efficient dApps on the Solana blockchain to this venture. Leveraging their profound understanding of blockchain technologies, they've pooled their talents to bring this ambitious project to life.

Our mission is to enhance user familiarity with the dApp staking process, transforming it from a potentially daunting task to a fun, rewarding, and stimulating gaming experience. We believe that blockchain and gaming are a natural fit, and our NFT game combines these elements to foster a better understanding of dApp staking while injecting an element of excitement into the process.

To summarize, DoubleHand is

- DoubleHand is an NFT gaming platform built on the Astar Network
- Our mission is to enhance user familiarity with dApp staking by injecting an element of excitement into the process.

2. Problem statements

- Lack of NFT gaming project on Astar network

- Lack of fun for dApps staking process, such as distribution

3. Solutions

- With our product, we're bring new concept for distributing the dApp staking to the stakers.

- And also, we want NFT gaming projects to be more richer in Astar network ecosystem. We're planning to add more complex and diverse game rather than RPS. Therefore, users in Astar can experience more fun projects, which makes network more active

3. User flow

1. User mint/buy NFT

2. Wait for game to start

3. When game starts, user follows these flow

   a. Move selection - User select their move (rock, scissor, paper)

   b. Move reveal - User reveal their move that they selected

   c. Result - Contract determine the result of RPS game, and burn the loser's NFT

   d. Vote - After 3 games(a,b,c), user vote to continue or end the game

4. If more than 50% of the survivors vote to end the game, or if there is only one survivor left, then game ends, and prize is distributed to survivors.
   NOTE: Prize pool is sum of NFT mint cost, and dApp staking reward which has been accumulated during the game

5. After the game ends, User can participate to new game by following 1~4
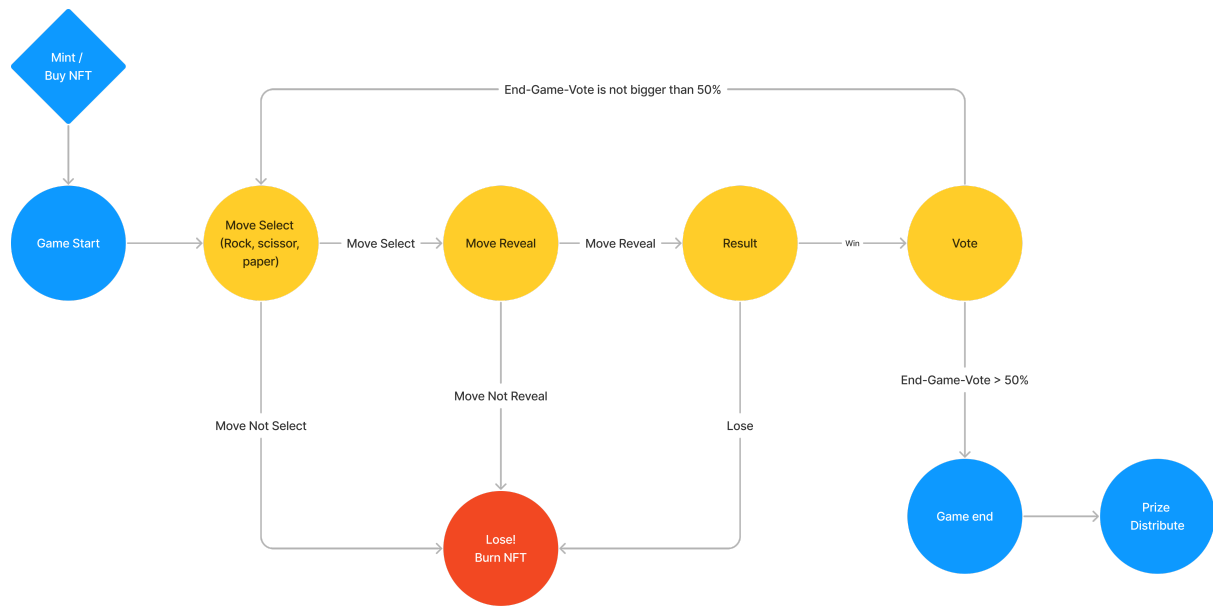
4. Game program flow

1. Game Period

    a. Move selection phase

        i. User can select their move in this phase

        ii. Move is one of rock, scissor, paper

        iii. When move is not selected, they will be lose in result phase

    b. Move reveal phase

        i. User can reveal their move in this phase

        ii. If user do not reveal their move, then the user will be lose in result phase.

    c. Result phase

        i. The program will now determine the result for matches.

        ii. User NFT will be burn if they lose the match. There can be three cases for being lose

            1. Not selecting their move

            2. Not Revealing their move

3. If they lose at rock-paper-scissors
NOTE: We follow the basic rule for rock-paper-scissors. (rock > scissor, paper > rock, scissor > paper)

d. Vote phase

 i. The program will now get a vote from users who survived at result phase

 ii. At the end of the phase, program will determine to whether continue the game, or end the game.

  1. If more than 50% of survivors has vote to end the game, then program moves to prize distribution phase.

  2. If it isn't, program moves to Move selection phase and start the a~d process again.

e. Prize distribution phase

 i. Prize pool is sum of value gathered by minting, and dApp staking rewards during the Mint period and Game period.

2. Go back to mint period and get ready for next game!

5. UI Design

> https://www.figma.com/file/IowgZkOuM8xNHFLLDeUxg2/Double-Hand?type=design&node-id=2%3A315&t=5KdqMJoBhDXjQgVw-1

https://www.figma.com/file/IowgZkOuM8xNHFLLDeUxg2/Double-Hand?type=design&node-id=0-1
https://www.figma.com/file/IowgZkOuM8xNHFLLDeUxg2/Double-Hand?type=design&node-id=2-315

6. Milestones

Milestone	Description	Estimated

		Completion Date
1	Complete initial development and testing of NFT game	June ~ August 2023
2	Launch DoubleHand NFT gaming platform, Register dApp staking for our platform	August ~ September 2023
3	Launch first RPS game	October 2023
4	Implement additional features and improvements based on user feedback	Ongoing

7. Team Members

1. Daniel Lee - Project Lead

2. HJ 1 - Tech Lead

3. Fruity Bae - Designer

4. HJ 2 - Frontend Developer