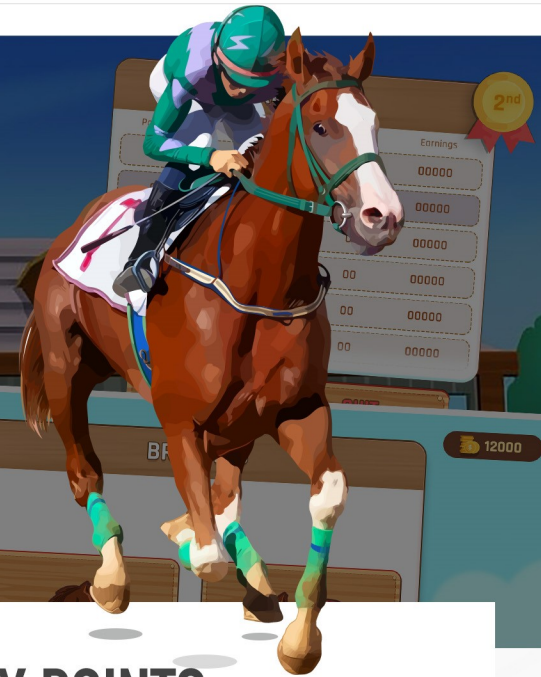


## LAZY HORSE:

Creating A Horse Racing Club in the Metaverse



## ABOUT THE PROJECT

Lazy Horse is a metaverse project. Users can access an exclusive digital horse racing club and 10,000 NFTs hosted on the Cronos blockchain.

## FEATURES

- Multi-player gameplay
- Virtual horse races
- Custom NFT marketplace
- Token-based staking
- In-game breeding mechanics
- Multiple gameplay modes

## CHALLENGES

During multi-player gameplay, we had to sync real-time data of horse positions among all players, even at lower internet speeds. The performance limitations of VR and WebGL required experimentation through trial and error.

## KEY POINTS

- ★ **Blockchain:** Cronos
- ★ **Game Engine:** Unity
- ★ **Genre:** Racing
- ★ **Art Style:** 3D
- ★ **Platforms:** Browser and VR



On the blockchain side, the minimal options of crypto wallets in VR created the limitation of the inability to access blockchain features when users play the game in VR. Furthermore, integrating two different wallets (MetaMask and Crypto De-Fi wallet) created the issue of data dissimilarity. Also, we had to prevent the unauthorized sale of horse NFTs once a user commences breeding.

## SOLUTION

Our approach for the horse position sync was to use deterministic steps to extrapolate the position of horses from their previous race positions and make the gameplay smooth regardless of user internet speed fluctuations. In addition, to optimize performance on Web and VR, the team used a lot of baked lighting and unlit shaders and retained higher frame rates without lowering visual fidelity.

The team found the workaround for the VR wallet constraint by emailing a QR code to the user, which connects to the user's crypto wallet upon scanning. We overcame the wallet data issue by manually inspecting data to find patterns, generalizing the data to fit both wallets, and testing rigorously for verification. In addition, to prevent NFT trading during breeding, we followed the custodial approach of the client holding the NFTs and only returning it to users once the breeding is complete or halted.

## THE FINAL RESULT

The Lazy Horse metaverse is in its final stages. We have completed Phase 1 and Phase 2 after rigorous quality analysis and entered the final phase.

So far, the project is a massive hit among the Lazy Horse racing community. It is already renowned as a one-of-a-kind metaverse experience.