

x402 Hackathon – Idea Submission

Product in One Sentence

RPSX is a real-time onchain Rock-Paper-Scissors game on Base that uses x402 and batch settlement to reduce per-game gas costs from ~\$4 to ~\$0.01.

What's the Problem Statement?

Onchain games today are impractical for real users due to high gas costs and poor user experience. Even simple games require multiple onchain transactions for setup, moves, and settlement, often costing more than the value of the game itself. This makes casual gameplay impossible, breaks real-time interaction, and discourages adoption beyond gas-insensitive users.

How is this solved today?

Most onchain games execute every action onchain, leading to repeated transaction signing and high fees. Some projects move logic offchain but still rely on manual deposits and individual settlements, which only partially reduce costs and still feel slow and clunky to users.

How does x402 improve this flow?

x402 enables HTTP-native payments that allow seamless deposits and withdrawals without repeated wallet confirmations. Using x402, RPSX lets players fund their balance once and play many games, while settlements are batched together. This drastically reduces per-game gas costs and enables a smooth, web-like gaming experience.

How does the final product flow work?

Player Flow:

1. Player connects wallet and deposits funds using x402
2. Player is matched instantly with another player
3. Game is played offchain in real time using WebSockets
4. Both players sign the result
5. Games are settled in batches onchain every few minutes
6. Player can withdraw funds anytime using x402

System Flow:

- Smart contract manages balances and settlements
- Offchain server handles gameplay and matchmaking
- Batch settlement amortizes gas across all players
- Platform takes a small fee from winning payouts