

HRUSD Protocol

White Paper

A Simple Guide to Understanding How HRUSD Works

Executive Summary

HRUSD is a fully collateralized, yield-generating stablecoin designed to provide sustainable on-chain returns while maintaining a **1:1 peg with USDC**.

Unlike traditional yield farming protocols that rely on inflationary token emissions, HRUSD generates **real yield** through a capital-efficient, delta-neutral strategy that combines decentralized liquidity with institutional trading infrastructure.

The entire user experience is fully automated: users simply deposit USDC, while the protocol handles minting, liquidity provisioning, staking, capital deployment, and reward distribution.

The Vision

The mission of HRUSD is simple:

- Build a stable digital dollar fully backed by USDC.
 - Generate sustainable, real-world yield.
 - Eliminate the complexity of DeFi.
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Protocol Architecture

The HRUSD Protocol consists of five core components working together automatically.

1. Peg Stability Module (PSM)

The Peg Stability Module guarantees that every HRUSD is fully backed by USDC.

Whenever a user deposits USDC:

- the USDC is locked inside the protocol;
- an equal amount of HRUSD is minted.

Example:

- Deposit: **100 USDC**
- Receive: **100 HRUSD**

This mechanism ensures:

- 1 HRUSD = 1 USDC
- No slippage during minting
- Fully collateralized supply

The PSM acts as the foundation of the entire protocol.

2. Automatic Liquidity Creation

After HRUSD is minted, the protocol automatically creates a liquidity position.

Instead of requiring users to manually provide liquidity, the protocol:

- splits the deposited capital into HRUSD and USDC;
- creates a concentrated 80/20 liquidity position on Uniswap V3;
- uses the 0.05% fee tier;
- mints an LP NFT representing the position.
- checks the pool price against a Uniswap V3 TWAP before building the range, and refuses to mint if the spot price has diverged too far from it.

This entire process happens automatically.

The user does not interact with Uniswap directly.

3. LP NFT Auto-Staking

Every liquidity position created on Uniswap V3 is represented by an NFT.

Instead of sending this NFT to the user's wallet, the protocol automatically deposits it into the staking contract.

Benefits include:

- no manual staking;
- continuous reward generation;
- simplified user experience;
- reduced operational complexity.
- staked positions are valued on a 30-minute TWAP rather than the spot price, so rewards cannot be moved by a momentary price swing.

From the user's perspective, staking begins immediately after the deposit.

4. Capital Deployment Strategy

Once liquidity has been created, the protocol deploys the capital through a market-neutral investment strategy.

The objective is not to speculate on market direction but to generate sustainable returns regardless of whether prices move up or down.

The strategy may generate yield from multiple sources, including:

- perpetual futures funding rates;
- Uniswap trading fees;
- market-neutral arbitrage opportunities;
- strategy optimization.

Because the strategy is delta-neutral, it aims to minimize directional market exposure while maximizing capital efficiency.

5. Reward Distribution

The yield generated by the strategy is periodically distributed to LP stakers.

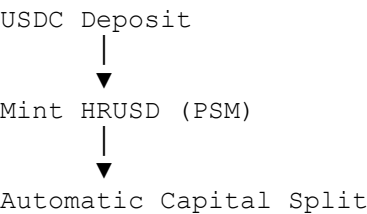
Rewards are paid directly in HRUSD.

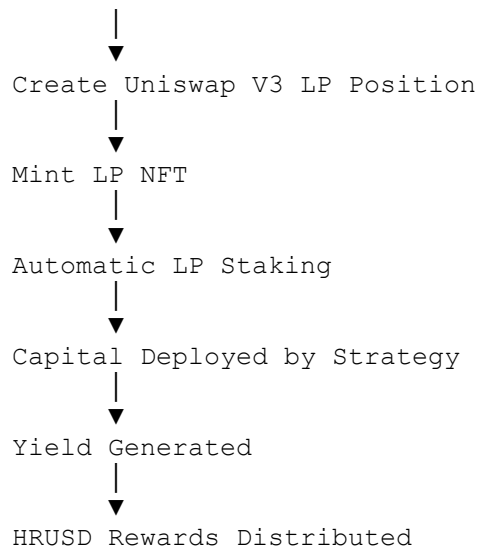
Users may:

- claim rewards at any time;
 - leave rewards unclaimed to accumulate;
 - reinvest their rewards to compound returns.
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Complete User Flow

The entire protocol can be summarized in a few simple steps:





Exit the Protocol

To withdraw funds, users must:

1. submit an Exit Request;
2. wait for the mandatory 1-day cooldown period;
3. withdraw the LP NFT;
4. remove liquidity and recover their assets.

Why Is There a Cooldown?

The cooldown mechanism improves protocol stability by:

- preventing sudden liquidity withdrawals;
 - protecting remaining participants;
 - allowing orderly capital management;
 - reducing systemic risk during periods of market stress.
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