

PROTOCOL WHITEPAPER · V1.0

Liquidity mining, re-engineered for Robinhood Chain.

A Uniswap v4 hook-based mining protocol: emissions paid to in-range liquidity, protocol-owned liquidity that compounds with every swap, and an optional leverage loop through Morpho.

NETWORK	TOKEN	SUPPLY	STATUS
Robinhood Chain (Arbitrum L2)	\$VANTRIX	1,000,000,000 fixed	Pre-launch concept

This document describes a protocol design. Parameters are illustrative pending audit and mainnet deployment. Not financial advice. Not an offer to sell securities or a solicitation to buy tokens.

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Paying liquidity providers like miners, not passengers.

Most memecoin liquidity on Robinhood Chain today earns nothing beyond speculative price appreciation. \$VANTRIX proposes a different structure: liquidity providers are treated as active participants in a fee-generating system, earning emissions for keeping real, in-range depth in the pool — the same incentive logic that makes proof-of-work mining productive, applied to on-chain liquidity instead of hash power.

The protocol is built entirely on infrastructure already live on Robinhood Chain: a Uniswap v4 pool with a custom hook contract, and an isolated Morpho lending market for an optional leverage loop. Nothing in this design requires new bridges, new custody, or off-chain intermediaries.

1.00% SWAP FEE	40% SUPPLY TO MINING	2.00× MAX LOCK MULTIPLIER	2 yrs EMISSION WINDOW
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Design goals

- Reward liquidity that actually fills swaps at the current price — not liquidity parked far out of range.
- Make protocol-owned liquidity grow automatically from trading activity, without discretionary treasury buys.
- Give long-term liquidity providers a real, disclosed, on-chain advantage over short-term farmers.
- Keep every parameter — supply, fees, emissions, vesting — enforced by contract, not adjustable by team vote.

How this differs from typical liquidity mining

First-generation liquidity mining programs (the SushiSwap/Curve "MasterChef" model) reward liquidity by total value staked, regardless of whether that liquidity ever transacts. On a concentrated-liquidity AMM like Uniswap v4, that design pays out for capital sitting far outside the trading range — capital that provides no execution depth and no fee revenue to the protocol. \$VANTRIX's in-range accounting closes that gap: emissions track the liquidity that is actually doing the work of filling swaps, at the moment it is doing it.

Who this is for

The design targets three participants: liquidity providers who want a disclosed yield source beyond price speculation, longer-horizon holders willing to trade flexibility for a higher emission multiplier, and advanced users comfortable evaluating collateralized leverage through Morpho. It is not designed for passive holders seeking guaranteed returns — none are offered, and none should be assumed.

Built on infrastructure that already exists.

Robinhood Chain is an Ethereum Layer 2 built on Arbitrum's Dedicated Blockchain framework, using ETH as its native gas token and offering full EVM compatibility — standard Solidity contracts and tooling (Hardhat, Foundry, viem) deploy without modification. The network is permissionless: any developer can deploy contracts without approval.

Since mainnet launch, activity on the chain has been dominated by memecoin speculation rather than the tokenized-stock use case it was originally built for. Uniswap is live with a v4 deployment and its own [Pools.trade](#) launchpad, and Morpho operates lending markets on the chain. \$VANTRIX is designed to sit on top of this exact stack.

What's already live and reused by this design

COMPONENT	PROVIDER	ROLE IN \$VANTRIX
Settlement layer	Robinhood Chain (Arbitrum Orbit)	Execution & gas (ETH)
AMM	Uniswap v4	Pool + custom hook for fee routing & mining accounting
Launch mechanism	Pools.trade-style locked liquidity	Permanently locked launch pool
Lending	Morpho (isolated markets)	Optional collateralized leverage loop

Notably, Robinhood Chain's existing launchpad economy (Pools.trade) provides locked liquidity and a static fee split, but no liquidity-mining emissions. \$VANTRIX's contribution is the mining layer on top of that foundation.

Ecosystem context

Robinhood Chain's early activity illustrates both the opportunity and the gap this design targets. The chain's largest memecoin by market capitalization has traded with no stated utility beyond speculation. Separately, points-mining programs on the chain's native perpetuals DEX have shown that usage-based incentive design draws real activity when it is transparent and directly tied to on-chain behavior — a pattern \$VANTRIX extends specifically to liquidity provision rather than trading volume.

Why build the mining layer as a hook, not a separate contract

Uniswap v4's hook architecture lets fee logic execute atomically inside the swap transaction itself, rather than through a second, asynchronous contract call. That matters for a mining design: fee capture, protocol-owned liquidity buybacks, and reward accounting all happen in the same transaction as the swap that generated them, with no separate keeper job required to keep the system solvent.

Three contracts, one flow.

The system has three moving parts: the v4 pool with its hook, the Mining Vault that tracks staked positions, and an isolated Morpho market for leverage.

01 · POOL

ETH / VANTRIX v4 pool

Standard concentrated-liquidity pool. The attached hook intercepts every swap to split fees and update mining accounting.

02 · VAULT

Mining Vault

LPs stake their v4 position here. The vault checks range status each accounting period and applies lock-tier multipliers.

03 · LOOP

Isolated Morpho market

Staked-LP receipt tokens can be posted as collateral to borrow ETH/USDG, isolated from every other Morpho market on the chain.

In-range accounting

A known failure mode in naive liquidity mining is rewarding "lazy" liquidity — positions set across an extremely wide range that technically provide liquidity but rarely transact at the market price. The Mining Vault addresses this by only accruing emissions for the portion of a staked position that is in-range at each accounting checkpoint, verified against the pool's current tick.

Contract-level guarantees

- Token contract has no mint function reachable after the constructor — total supply is fixed at deploy.
- Launch liquidity is sent to a locking contract with no owner-withdraw path.
- The hook's fee split (0.30% / 0.50% / 0.20%) is a constant, not a variable the team can change post-deploy.
- The Morpho market is created as an isolated market — collateral and debt in this market cannot affect other markets on Morpho.

Execution walkthrough

STEP	ACTOR	WHAT HAPPENS
1	Trader	Submits a swap against the ETH/VANTRIX v4 pool
2	Hook	Splits the 1.00% fee, executes the buy-and-relock, updates vault accounting
3	Mining Vault	Checkpoints in-range liquidity and accrues emissions per staked position
4	LP	Claims streamed emissions, or leaves them compounding, at any time

All four steps settle within the same block as the triggering swap — there is no batching delay and no off-chain relayer in the critical path.

Every swap grows the pool.

A 1.00% fee applies to every swap through the \$VANTRIX pool, split three ways:

DESTINATION	SHARE	MECHANISM
Passive liquidity providers	0.30%	Standard Uniswap v4 LP fee accrual
Protocol-owned liquidity	0.50%	Hook auto-buys \$VANTRIX and relocks it into the pool
Treasury	0.20%	Routed to a transparent multisig for ecosystem costs

The protocol-owned liquidity flywheel

The 0.50% hook-captured fee is used to purchase \$VANTRIX on the open pool and permanently lock it alongside the original launch liquidity. Because this happens automatically on every swap, pool depth grows with trading volume rather than depending on discretionary treasury action — the same buy-and-relock flywheel mechanic that has already been used successfully by other projects on Robinhood Chain.

Fee revenue at different volume levels

DAILY SWAP VOLUME	PASSIVE LPS (0.30%)	BUY & RELOCK (0.50%)	TREASURY (0.20%)
\$100,000	\$300	\$500	\$200
\$1,000,000	\$3,000	\$5,000	\$2,000
\$10,000,000	\$30,000	\$50,000	\$20,000

Figures are directly proportional to volume — there is no fee tiering or discount schedule. They illustrate the mechanism, not a volume forecast.

Worked example. On \$1,000,000 of daily swap volume: \$3,000/day accrues to passive LPs, \$5,000/day is used to buy and relock \$VANTRIX into the pool, and \$2,000/day is routed to treasury. At that rate, protocol-owned liquidity would grow by roughly \$1.8M of relocked \$VANTRIX over a year, independent of any team or treasury purchases.

1,000,000,000 \$VANTRIX. Fixed supply.

No mint function exists after deployment. Every token in circulation traces back to this initial allocation.

ALLOCATION	SHARE	TOKENS	NOTES
Liquidity mining emissions	40%	400,000,000	Released over 104 weeks, halving schedule
Locked launch liquidity	35%	350,000,000	Seeded into the permanently locked v4 pool
Team	10%	100,000,000	12-month cliff, 24-month linear vest
Ecosystem treasury	10%	100,000,000	Seeds the Morpho market; funds integrations
Community airdrop	5%	50,000,000	Snapshot of early LPs & Robinhood Wallet activity

Why a fixed cap

An open-ended mint function is the single most common vector for silent dilution in memecoin-adjacent projects. \$VANTRIX's supply is fixed at the constructor and independently verifiable on-chain — the entire tokenomics table above should be readable directly from contract state, not taken on trust from this document.

Team vesting detail

PERIOD	TOKENS UNLOCKED	CUMULATIVE
Months 0 – 12	Cliff — 0 unlocked	0%
Months 13 – 24	Linear release, ~4.17M/month	50%
Months 25 – 36	Linear release, ~4.17M/month	100%

Ecosystem treasury use

The 100,000,000-token ecosystem allocation is earmarked for seeding the initial Morpho isolated market with collateral-side liquidity, funding future cross-chain or DEX integrations, and covering audit and security-review costs ahead of mainnet deployment. It is held in the same transparent multisig referenced in Section 4, not a team-controlled wallet.

Halving every 26 weeks, like a miner's block reward.

The 400,000,000 token mining pool is released over four 26-week epochs. The weekly rate halves at the start of each epoch, so incentives front-load early liquidity while tapering predictably.

EPOCH	WEEKS	RATE / WEEK	EPOCH TOTAL	% OF POOL
1	1 – 26	8,205,128	213,333,333	53.3%
2	27 – 52	4,102,564	106,666,667	26.7%
3	53 – 78	2,051,282	53,333,333	13.3%
4	79 – 104	1,025,641	26,666,667	6.7%

Total across all epochs: 400,000,000 \$VANTRIX exactly. Roughly 80% of the mining pool is emitted in year one, with the remaining 20% tapering through year two before emissions end entirely.

Cumulative emissions by checkpoint

CHECKPOINT	CUMULATIVE EMITTED	% OF MINING POOL
End of week 26 (Q2)	213,333,333	53.3%
End of week 52 (Year 1)	320,000,000	80.0%
End of week 78 (Q6)	373,333,333	93.3%
End of week 104 (Year 2)	400,000,000	100.0%

Design rationale. A halving curve was chosen over a smooth exponential decay because it is trivial to audit on-chain — four constants, one comparison against elapsed weeks — and because the block-reward-halving pattern is a familiar, well-understood mining narrative. Once week 104 passes, the mining pool is fully distributed and the hook's emission function returns zero permanently; no governance action can restart or extend it.

The longer you lock, the more you mine.

Staked LPs choose a lock duration at stake time. Longer locks receive a fixed multiplier on their share of the weekly emission — applied identically to every participant at that tier, with no discretionary boosts.

LOCK DURATION	MULTIPLIER	WITHDRAWAL
Unlocked	1.00×	Any time
30 days	1.25×	After lock expiry
90 days	1.50×	After lock expiry
180 days	2.00×	After lock expiry

Accounting cadence

The vault checkpoints in-range status and distributes accrued emissions on a per-block basis, streamed rather than claimed in discrete epochs, so a position's effective reward rate updates continuously as price moves it in or out of range.

Illustrative reward comparison

Assume two LPs each stake an in-range position representing an identical 0.01% share of pool liquidity during epoch 1 (8,205,128 \$VANTRIX/week). Their weekly emission share before multiplier is identical — the lock tier is the only variable that changes the outcome:

POSITION	LOCK TIER	BASE WEEKLY SHARE	MULTIPLIER	EFFECTIVE WEEKLY REWARD
LP A	Unlocked	820.5	1.00×	820.5
LP B	180-day lock	820.5	2.00×	1,641.0

Figures are illustrative for a hypothetical 0.01% pool share and do not account for other stakers' lock choices, which determine the actual pro-rata split of the weekly emission pool.

An optional, isolated leverage layer.

Staked-LP receipt tokens ("mLP") can be posted as collateral in a dedicated, isolated Morpho market to borrow ETH or USDG — allowing a participant to re-deploy borrowed capital into additional liquidity, compounding both mining exposure and risk.

PARAMETER	VALUE
Collateral asset	mLP (staked-LP receipt)
Borrowable assets	ETH, USDG
Maximum LTV	55%
Market type	Isolated (Morpho)

Loop mechanics, step by step

STEP	ACTION
1	Provide liquidity to the ETH/VANTRIX v4 pool and stake it in the Mining Vault
2	Receive an mLP receipt token representing the staked, reward-accruing position
3	Deposit mLP as collateral in the isolated Morpho market
4	Borrow ETH or USDG against it, up to the 55% max LTV
5	Optionally redeploy the borrowed asset into additional liquidity, repeating from step 1

This loop is reflexive by construction

If the \$VANTRIX price falls, mLP collateral value falls with it, which can trigger liquidations. Forced liquidation sells the underlying position, which can add further sell pressure on price — a feedback loop common to every leveraged liquidity strategy, not unique to this protocol. Isolation limits contagion to this specific Morpho market; it does not eliminate the risk to participants using the loop. This section is a technical description, not a recommendation to use leverage.

Read this before providing liquidity.

Liquidity mining, concentrated liquidity, and leveraged collateral all carry real, well-documented risks. This section is not exhaustive.

Impermanent loss

Providing liquidity to any AMM pool exposes an LP to impermanent loss relative to simply holding the two assets — this risk exists independent of \$VANTRIX's mining mechanics and is amplified by concentrated, in-range positioning.

Smart contract risk

The hook, vault, and any integration with Morpho are smart contracts and may contain undiscovered bugs. This whitepaper describes intended design; it is not a substitute for an independent security audit, which should be completed and published before mainnet deployment.

Emission-driven sell pressure

Mining emissions increase circulating supply on a known schedule. If demand does not keep pace with new supply, particularly in the front-loaded first epoch, downward price pressure is a realistic outcome.

Leverage & liquidation risk

Participants using the Morpho collateral loop can be liquidated if collateral value falls relative to borrowed value, independent of their intent to hold long-term.

Early-stage, thin-liquidity risk

Newly launched tokens on Robinhood Chain — as documented across the ecosystem — routinely exhibit thin liquidity and high volatility. \$VANTRIX, as a new deployment, would carry the same characteristics until liquidity matures.

Oracle & price-feed risk

The Morpho market's liquidation logic depends on price data for mLP and the borrowed asset. Any oracle outage, manipulation, or stale-price condition could trigger incorrect liquidations or delay correct ones — a risk inherent to any oracle-dependent lending market, not specific to this integration.

Regulatory risk

The regulatory treatment of liquidity-mining tokens, yield-bearing DeFi positions, and tokenized-adjacent infrastructure continues to evolve across jurisdictions. Future regulatory action could affect the availability, legality, or tax treatment of participating in this protocol in ways this document cannot anticipate.

Not financial advice. Not an offer.

This document is a technical and economic description of a protocol concept. It is provided for informational purposes only and does not constitute financial, investment, legal, or tax advice. Nothing in this whitepaper is an offer or solicitation to buy or sell any security or financial instrument in any jurisdiction.

All figures — supply, fees, emission rates, multipliers, and examples — are illustrative protocol parameters as currently designed and are subject to change prior to audit and mainnet deployment. Past performance of comparable mechanisms on Robinhood Chain or elsewhere is not indicative of future results.

Digital assets are volatile and involve significant risk, including total loss of capital. Liquidity mining, concentrated liquidity provision, and collateralized borrowing each carry additional, compounding risks as described in Section 9. Prospective participants should conduct independent research and consult qualified professional advisors before interacting with any smart contract described in this document.

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This whitepaper may be revised as the protocol design matures ahead of audit and deployment; the version number on the cover page identifies the specific revision described herein. No revision retroactively changes parameters already deployed on-chain.

\$VANTRIX

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