BLACKWALL

A Fair Launch Infrastructure Protocol

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https://github.com/oryxonchain/blackwall

Abstract

The token launch ecosystem has become structurally exploitative. A small number of tracked wallets — commonly referred to as Key Opinion Leaders (KOLs) — have weaponized their visibility to extract value from every new token deployment. Copy-trading infrastructure has matured to the point where a tracked wallet's entry into a token triggers hundreds of automated followers, creating artificial demand that the tracked wallet subsequently exits into. Developers who deploy tokens find their launches hijacked by participants whose only thesis is "a known wallet bought."

Blackwall is a fair launch infrastructure protocol built on Uniswap V4 hooks. It provides token deployers with a self-contained launch stack that includes an on-chain wallet blacklist, transparent fee splitting, and a protocol-level buyback mechanism. Rather than

charging platform fees that extract value from the ecosystem, Blackwall routes protocol revenue into continuous buybacks of its native token (BWALL), aligning platform growth with token holder value.

This paper describes the protocol architecture, fee mechanics, anti-extraction framework, and roadmap for the Blackwall launchpad.

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1. Introduction

Token launchpads have become the dominant onramp for new token deployments across EVM and Solana ecosystems. Platforms like Pump.fun and various chain-native launchers each offer a variation on the same model: simplified deployment, bonding curves or AMM pool creation, and some form of creator incentive. The collective volume through these platforms now represents the majority of new token activity.

Despite this growth, the fundamental problem facing token deployers has not been addressed at the infrastructure level: launch extraction. The tools to track, copy, and front-run notable wallets are now commoditized. Telegram bots, browser extensions, and paid dashboards provide real-time alerts when tracked wallets interact with any new token. The result is a market where token launches are evaluated not on their merits but on which wallets have touched them.

Blackwall takes a different approach. Rather than attempting to solve this problem through social coordination or off-chain reputation systems, Blackwall embeds anti-extraction logic directly into the swap hook that governs every trade. Tracked wallets are blocked at the contract level. They cannot buy, they cannot sell, they cannot interact with any token launched through Blackwall infrastructure.

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2. Problem Statement

2.1 The Copy-Trading Extraction Loop

The lifecycle of a typical token launch under current conditions follows a predictable pattern:

- A token is deployed and liquidity is seeded.
- Within seconds, wallet-tracking infrastructure identifies early buyers and cross-references them against known wallet databases.
- If a tracked wallet (KOL, alpha caller, or high-profile trader) is among the early buyers, automated copy-trade systems execute buy orders across hundreds of follower wallets.
- The resulting demand spike is artificial — driven entirely by the identity of an early buyer rather than any evaluation of the token itself.
- The tracked wallet sells into this artificial demand, extracting value from the copy-traders who followed.
- The token's organic community is left holding a depleted chart and a narrative that has already been consumed.

This loop operates continuously across every major chain and every major launchpad. It is not a bug in the system — it is the system, as currently structured.

2.2 The KOL Economy

The term "KOL" (Key Opinion Leader) has evolved from its marketing origins into something closer to "Key Extraction Layer." A small group of approximately 1,000-1,500 wallets has been identified by the community through tools like Axiom, FOMO, and various on-chain analytics platforms as consistently present in early-stage token positions. These wallets benefit from a self-reinforcing dynamic:

- Their entries are tracked and copied, guaranteeing demand after their buy.
- This guaranteed demand makes their entries profitable regardless of the token's actual merit.
- Their consistent profitability attracts more copiers, strengthening the effect.

For token deployers, this creates an adversarial launch environment. A KOL buying your token might appear positive — price goes up — but the subsequent dump leaves your chart damaged and your organic community underwater. The deployer has no control over this dynamic under current infrastructure.

2.3 Platform Fee Structure

Existing launchpads charge trading fees that are split between the platform and the token creator. Pump.fun, the largest Solana launchpad, charges a 1% fee on all trades through its native AMM, split evenly between the platform (0.5%) and the token creator (0.5%). This creator reward model was a meaningful step forward for deployers — but it does nothing to address launch extraction. Creators earn revenue while their charts get farmed by the same tracked wallets on every launch.

The fee structure itself is not the problem. The problem is that no existing platform combines creator rewards with any form of on-chain protection against the wallets doing the extracting. Fees are collected, but the extraction loop continues unchecked.

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3. Protocol Overview

Blackwall is a fair launch protocol consisting of three integrated components:

- **The Hook** — A Uniswap V4 hook contract that governs all swap activity for tokens launched through Blackwall. The hook enforces the wallet blacklist, calculates fees, and routes fee revenue to the appropriate vaults.
- **The Launcher** — A deployment contract that handles token creation, initial liquidity provision, pool registration, and vault creation. Deployers interact with the launcher to create their token — the hook, vault, and pool configuration are handled automatically.
- **The Vault System** — A set of reward vault contracts that collect fee revenue and make it claimable. Each token launch creates its own vault for creator rewards. The protocol maintains a separate treasury vault for buyback revenue.

These components are deployed as immutable contracts. The hook has no admin functions — the blacklist is set at deployment and the contract is fully renounced. Fee rates, blacklist entries, and all protocol parameters are permanent once deployed. The vault system uses the same battle-tested `ClassicRewardVaultV1` architecture used across multiple Uniswap V4 deployments.

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4. Architecture

4.1 Hook Contract

The Blackwall hook implements the `beforeSwap` callback in Uniswap V4's hook system. When any swap is initiated against a Blackwall-launched pool, the hook executes the following logic:

```
1. Identify the trader (tx.origin for router compatibility)
2. Check trader against the blacklist mapping
   → If blacklisted: revert with BlacklistedAddress(trader)
3. Determine swap direction (buy or sell)
4. Calculate fee amount (0.5% creator + 0.5% protocol = 1% total)
5. Split fee revenue between creator vault and protocol vault
6. Execute the swap with fee deducted
```

The hook uses `tx.origin` rather than `msg.sender` for trader identification. This ensures that blacklisted wallets cannot circumvent the block by routing through aggregators, routers, or intermediary contracts.

4.2 Fee Obfuscation

Fee configuration is stored on-chain using XOR masking with a random seed generated at deployment. This prevents bots and MEV searchers from reading fee parameters directly from contract storage. The `_encode()` and `_decode()` internal functions handle the obfuscation transparently — the fee math itself is unaffected.

```
uint256 private immutable _feeSeed;

function _encode(uint256 value) internal view returns (uint256) {
    return value ^ _feeSeed;
}

function _decode(uint256 value) internal view returns (uint256) {
    return value ^ _feeSeed;
}
```

On-chain observers and block explorers see obfuscated values in storage and events. Only the contract's internal logic sees the real fee rates.

4.3 Launcher Contract

The launcher handles the full deployment sequence for a new token:

- Deploy the ERC-20 token contract with specified name, symbol, and supply.
- Create a `ClassicRewardVaultV1` for the deployer's creator rewards.
- Register the token with the hook, binding it to the fee and blacklist configuration.
- Create the Uniswap V4 pool with the hook attached.

- Seed initial liquidity.
- Execute the deployer's initial buy (optional).

The deployer specifies token metadata and initial buy amount. Everything else — pool parameters, tick spacing, fee configuration, vault creation — is handled by the launcher using protocol defaults.

4.4 Vault System

Each token launch creates two fee destinations:

- **Creator Vault** — Receives 0.5% of all swap volume for the launched token. The deployer can claim accrued fees at any time.
- **Protocol Treasury Vault** — Receives the other 0.5% of all swap volume across all Blackwall-launched tokens. This vault is controlled by the Blackwall protocol and used exclusively for BWALL buybacks.

Vaults are instances of `ClassicRewardVaultV1`, a proven contract that has processed fees across multiple Uniswap V4 deployments. Fees accrue as native ETH (or the chain's gas token) and are claimable without lockup or vesting.

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5. Fee Structure & Economics

5.1 Fee Schedule

Direction	Total Fee	Creator Share	Protocol Share
Buy	1.0%	0.5%	0.5%
Sell	1.0%	0.5%	0.5%

Fees are flat and universal. There are no tiers, no whitelist exemptions, and no discounts. Every swap through a Blackwall-launched pool pays the same 1% fee regardless of wallet, volume, or hold duration.

5.2 Creator Rewards

Token deployers earn 0.5% of all swap volume on their token. This is a first-class feature, not an afterthought. The creator vault is deployed automatically during the launch process, and rewards are claimable immediately as they accrue.

For context: a token generating $100,000 in daily volume produces $500/day in creator rewards. This creates a sustainable incentive for deployers to build and maintain active communities around their tokens, rather than treating each launch as a one-time extraction event.

5.3 Protocol Revenue

The protocol's 0.5% share across all launched tokens flows to the treasury vault. This revenue is not extracted — it is recycled into the ecosystem through daily BWALL buybacks. The mechanics of this buyback system are described in Section 8.

5.4 Comparison with Existing Platforms

Platform	Total Fee	Creator Share	Platform Share	Buyback	On-Chain Protection
Pump.fun	1.0%	0.5%	0.5%	None	None
Blackwall	1.0%	0.5%	0.5%	Daily	KOL Blacklist

At the same total fee rate and the same creator reward split as Pump.fun, Blackwall adds two things no existing launchpad offers: a protocol-level buyback mechanism that recycles platform revenue into the native token, and an on-chain wallet blacklist that blocks known extraction wallets from interacting with launched tokens. The fee economics are identical — the difference is what happens with the platform's share and who is allowed to trade.

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6. Anti-Extraction Framework

6.1 The Blacklist

Blackwall's primary anti-extraction mechanism is an on-chain wallet blacklist. At launch, the hook constructor is initialized with 1,097 tracked KOL wallet addresses sourced from community-compiled databases. Any wallet on this list that attempts to swap against a Blackwall-launched token receives a transaction revert.

The blacklist is a mapping (`feeBlacklist`) checked on every swap. The check occurs before any fee calculation or swap execution, making it gas-efficient for non-blacklisted wallets (a single SLOAD).

```
if (feeBlacklist[trader]) revert BlacklistedAddress(trader);
```

6.2 Blacklist Immutability

The blacklist is set once at deployment and cannot be modified after the fact. There is no `setBlacklist` function, no admin key, and no mechanism to add or remove addresses after the hook is deployed. The contract is fully renounced — no owner, no multisig, no upgrade path.

This is a deliberate design choice. If the blacklist could be modified post-deployment, it would introduce a trust assumption: traders would need to trust that the deployer or protocol operator wouldn't weaponize the blacklist to block legitimate wallets. By making the blacklist immutable, that trust assumption is eliminated entirely. The blacklist is visible in the constructor, verifiable on-chain, and permanent.

If a deployer wants to block additional wallets beyond the default set, they deploy a new token with an updated blacklist. The previous token and its pool continue to operate under their original rules, unchanged.

6.3 Why On-Chain Enforcement

Off-chain solutions to the KOL extraction problem (social shaming, community blacklists, gentlemen's agreements) have failed because they rely on voluntary compliance from the parties who benefit most from non-compliance. On-chain enforcement removes the choice: a blacklisted wallet cannot interact with the pool regardless of its operator's intentions.

The trade-off is rigidity. A legitimate trader whose wallet appears on the blacklist has no recourse within the contract itself. This is by design — the cost of occasionally blocking a legitimate wallet is lower than the cost of allowing 1,097 extraction wallets to operate freely. The immutability of the blacklist means this trade-off is made once, at deployment, and cannot be revisited. Tokens already held by a blacklisted wallet remain in their possession and can be transferred via standard ERC-20 transfers (which are untaxed).

6.4 Current Default and Future Expansion

Currently, every token launched through Blackwall ships with the same default blacklist: 1,097 tracked KOL wallets hardcoded into the hook constructor. This default set provides immediate protection against the most well-known extraction wallets without requiring any configuration from the deployer.

Future versions of the hook will expand the anti-extraction framework:

- **Custom Blacklists** — Deployers will be able to specify their own blacklist at launch, targeting wallets known to be adversarial to their particular community. The blacklist remains immutable after deployment — set once, renounced, permanent.
- **Team Whitelisting** — Deployers can designate team wallets that are exempt from sell-side fees, enabling team operations without friction.
- **Sniper Taxation** — Time-based sell fee tiers that penalize wallets selling within minutes of buying, making bot-driven snipe-and-dump strategies unprofitable.

Each of these features will be implemented as new hook versions, deployed alongside the existing infrastructure. Tokens launched under earlier versions of the hook will continue operating under their original rules.

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7. BWALL Token

7.1 Overview

BWALL is the native token of the Blackwall protocol, deployed on Robinhood Chain. It serves as the value capture mechanism for the protocol's fee revenue through daily buybacks.

- **Name:** Blackwall
- **Symbol:** BWALL
- **Contract:** `0x42e02b34Af2e89881b067498C67bf2FF0eC4208E`
- **Chain:** Robinhood Chain (Mainnet)

7.2 Value Accrual

BWALL's value is directly tied to the volume processed through Blackwall-launched tokens. As more tokens are launched and traded through the protocol, more fee revenue flows to the treasury vault, resulting in larger daily buybacks. This creates a positive feedback loop:

- More tokens launched → more trading volume → more protocol revenue
- More protocol revenue → larger daily buybacks → increased buying pressure on BWALL
- Increasing BWALL value → more attention on the protocol → more deployers choosing Blackwall
- More deployers → back to step 1

Unlike governance tokens that derive value from speculative voting rights, or utility tokens that require artificial demand sinks, BWALL's value mechanism is simple: protocol revenue buys BWALL every day.

7.3 No Inflation

BWALL has a fixed supply. There are no minting functions, no inflation schedules, and no emissions. The only directional pressure on supply is the daily buyback, which removes BWALL from circulation and holds it in the protocol treasury.

8. Buyback Mechanism

8.1 Process

The buyback operates on a daily cycle:

- **Accumulation** — Throughout the day, 0.5% of all swap volume across all Blackwall-launched tokens accrues as ETH in the protocol treasury vault.
- **Claim** — The protocol claims accrued ETH from the treasury vault.
- **Execution** — The claimed ETH is used to market-buy BWALL through the BWALL/ETH pool.
- **Hold** — Purchased BWALL is held in the protocol treasury wallet. It is not burned, redistributed, or staked — it is held as protocol-owned value.

8.2 Transparency

Every buyback is an on-chain transaction executed through the same Uniswap V4 pool that every other BWALL trader uses. There is no off-chain component, no OTC desk, and no discretionary timing. Buybacks are executed daily from the protocol's developer wallet and are visible on any block explorer.

8.3 Automation (Planned)

The initial buyback process is manually triggered. The protocol roadmap includes automation of the claim-and-buyback cycle via a keeper contract that executes the full cycle on a fixed schedule without human intervention. This removes any discretion from the process and ensures buybacks occur regardless of market conditions.

8.4 Economic Impact

To illustrate the buyback mechanics at scale:

Daily Volume (All Tokens)	Protocol Revenue (0.5%)	Daily Buyback
$100,000	$500	$500
$1,000,000	$5,000	$5,000
$10,000,000	$50,000	$50,000

At $1M daily volume across all Blackwall-launched tokens, the protocol executes $5,000 in daily BWALL buybacks — $150,000/month in consistent buying pressure. This buying pressure is independent of market sentiment, speculation, or narrative cycles. It is a direct function of platform usage.

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9. Security Considerations

9.1 Immutability

The hook contract has no upgrade mechanism and no owner. Fee rates, the blacklist, the fee split logic, and all protocol parameters are immutable once deployed. The contract is fully renounced at deployment — there are no admin functions, no multisig controls, and no mechanism to modify any aspect of the hook's behavior after it goes live. What you see in the constructor is what you get, permanently.

9.2 Reentrancy Protection

All swap operations are protected by OpenZeppelin's `ReentrancyGuardTransient`, preventing reentrancy attacks through the hook's callback system.

9.3 Fee Caps

`MAX_FEE_BPS` is hardcoded to 100 (1%). Even if the fee configuration were somehow manipulated, the contract enforces a hard ceiling of 1% on any individual fee. This prevents any scenario where a configuration error or exploit could result in excessive fees.

9.4 tx.origin Usage

The hook uses `tx.origin` for trader identification rather than `msg.sender`. While `tx.origin` is generally discouraged in smart contract development due to phishing risks, in this context it is a deliberate design choice. Using `msg.sender` would allow blacklisted wallets to bypass the block by routing through intermediary contracts. The phishing risk is not applicable here because the hook only uses `tx.origin` to check a read-only blacklist — it never transfers funds based on `tx.origin`.

9.5 Constructor Gas

The deployment constructor initializes 1,097 storage slots for the baked-in blacklist, consuming approximately 22 million gas. This is well within the block gas limits of Robinhood Chain (approximately 1.1 quadrillion gas limit) and executes in a single transaction.

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10. Roadmap

Phase 1 — Foundation (Current)

- [x] Hook contract with baked-in KOL blacklist (1,097 wallets)
- [x] Flat 1% fee with 50/50 creator/protocol split
- [x] Fee obfuscation (XOR masking)
- [x] Creator reward vaults (auto-deployed per token)
- [x] Protocol treasury vault
- [x] BWALL token deployment
- [x] Manual daily buybacks
- [ ] Launchpad UI (web interface for no-code token deployment)
- [ ] Buyback dashboard (public tracking of daily buybacks)

Phase 2 — Extended Protection

- [ ] Custom blacklists per token (deployer-specified wallet blocks, immutable at launch)
- [ ] Team whitelisting (deployer-designated fee-exempt wallets)
- [ ] Sniper taxation (time-based sell fee tiers for early sellers)
- [ ] Automated buyback keeper contract

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11. Conclusion

The token launch market does not need another platform that charges fees and hopes for the best. It needs infrastructure that addresses the structural problems that make launches adversarial.

Blackwall does two things that no existing launchpad does:

- It blocks known extraction wallets at the contract level, giving deployers a launch environment where the outcome depends on their community rather than which tracked wallets decided to participate.
- It recycles platform revenue into daily buybacks of its native token, aligning the protocol's financial incentives with its token holders rather than extracting value into a corporate treasury.

The hook is open source. The contracts are immutable. The buybacks are on-chain. Fork it, deploy it, or launch through it.

Source Code: github.com/oryxonchain/blackwall

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