



Treble

HARMONY ON BASE

Whitepaper

The Ultimate User-Friendly DeFi Hub on
BASE Network

Built on BASE.

Table of Contents

1.	Introduction	3
1.1	Purpose of the White Paper.....	3
1.2	Disclaimer.....	3
2.	Executive Summary	3
3.	Network Architecture	4
3.1	Base Network.....	4
4.	Tokenomics	4
4.1	TREB Token.....	4
4.2	xtREB Token	5
5.	Initial DEX Offering (IDO).....	5
5.1	Launchpad.....	5
5.2	Referral System	5
5.3	Fund Allocation.....	6
5.4	Token Distribution.....	6
6.	Liquidity Pools and Farming Mechanisms.....	6
6.1	Liquidity Pool Creation.....	6
6.2	Farming Mechanism Overview.....	6
6.3	Reward Claiming Options	7
6.4	Game Theory in Farming	7
7.	Stable-Swap.....	7
7.1	Concept	7
7.2	Functionality.....	7
8.	Cross-Chain Integration with Swing	7
8.1	Cross-Chain Swaps.....	7
8.2	Aggregation.....	8
9.	Integration with Algebra DEX Engine V4 Automated Market Maker (AMM)	8
9.1	Concept	8
9.2	Improved Capital Efficiency	8
9.3	Enhanced Fee Structure	8
9.4	Advanced Order Types.....	8
10.	Security.....	8
10.1	Security Initiatives	8
11.	Roadmap.....	9
11.1	Q4 2024	9
11.2	Q1 2025	9
11.3	Q2 - Q3 2025	10
12.	Conclusion.....	11

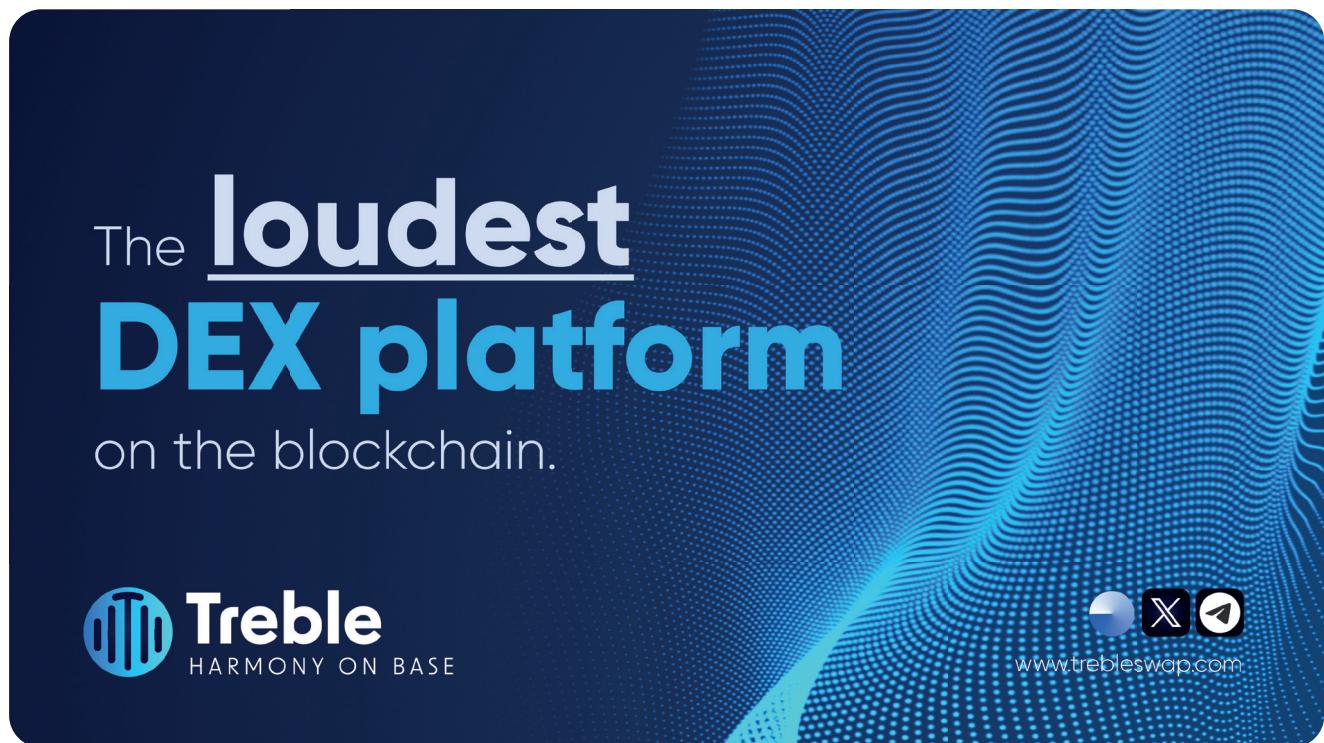
1. Introduction

1.1 Purpose of the White Paper

This white paper is your go-to guide for understanding Treble. We'll walk you through everything from its architecture and features to what's coming up next. Whether you're a potential user, investor, or stakeholder, this document will give you a well-rounded understanding of the Treble ecosystem. Think of it as your must-have resource for all things Treble.

1.2 Disclaimer

While this white paper serves as an in-depth informational guide, it's crucial to note that it does not constitute financial, legal, or any form of professional advice. We recommend that you conduct your due diligence and seek professional advice before making any investment decisions. The information presented is subject to change, and all financial statistics are for illustrative purposes only. You are reading this document at your own risk, agreeing that Treble will not be held liable for any activities carried out based on this information.



2. Executive Summary

Treble is a next-generation decentralized exchange engineered to run as a seamless DeFi hub on Base Network. Treble encompasses a wide array of decentralized finance solutions: a Launchpad, an Automated Market Maker, liquidity pools, and novel staking mechanisms based on game theory. This paper marks the foundation of sophisticated architecture along with pioneering features in the path forward for Treble.

3. Network Architecture

3.1 Base Network

Treble is uniquely positioned to operate on Base Network, providing a specific set of advantages. Base Network serves as a pioneering Optimistic Rollup Layer 2 solution built on top of Ethereum, through a strategic partnership between Coinbase and Optimism Foundation.

4. Tokenomics



4.1 TREB Token

TREB serves as the pivotal token for a range of activities on Treble including incentives, staking, and overall user engagement. The tokenomics of TREB are intricately designed to achieve a dual purpose: equitable distribution across all stakeholders and enduring sustainability for long-term growth. Below is a detailed breakdown of the token allocation:

- **8% for the Private Round:** During the Token Generation Event (TGE) 10% of these tokens will be issued, followed by a 30 day cliff, with the rest of the tokens being linearly vested over the following 11 months.
- **12% for the Initial DEX Offering (IDO):** During the Token Generation Event (TGE), 20% of these tokens will be issued, followed by a 30 day cliff, after which the rest of the tokens will be linearly vested for 3 months, in the form of xTREB.
- **12% for Team and Advisors:** This allocation comes with a 6-month cliff followed by linear vesting over a year. This structure is designed to keep the team and advisors aligned with the Treble's long-term objectives and milestones.
- **10% for Ecosystem Growth:** With a 30-day cliff and linear vesting over one year, this pool is earmarked for strategic partnerships, community engagement, and other growth-driving initiatives. This ensures that Treble has the resources to adapt and thrive.
- **10% for Treasury:** Also subject to a 6-month cliff and linear vesting over one year, this reserve is set aside for future developments, risk mitigation, and to address any unforeseen challenges or opportunities that may arise.
- **1% for Airdrop:** This allocation will be issued to our early community members in the form of xTREB tokens.
- **2% for Liquidity:** This allocation will be issued to provide the initial liquidity for the TREB/ETH Liquidity Pool.
- **45% for Staking Rewards:** This is the most substantial allocation, aimed at incentivizing robust user participation in staking activities. It serves to secure the network and foster a fair, decentralized distribution of tokens.



4.2 xTREB Token

xTREB is a key component of the Treble ecosystem and plays several pivotal roles.

For starters, it is Treble's governance token, placing power and the ability to shape the evolution of Treble in the hands of the users. Beyond governance, xTREB token holders will have the rights and entitlements to their share of the revenue which Treble generates. This allows our users to be able to stake and earn their portion of the revenue generated, further aligning interest toward Treble's success.

All xTREB holders shall be granted access to future IDO allocations on Treble's launchpad. This feature positions xTREB not just as a governance tool, but also as a key to accessing promising investment opportunities in the emerging projects hosted on our platform. xTREB will be acquired by staking TREB at a 1:1 conversion rate, with a set of deflationary mechanics, vesting options, and burn fees, all tailor-made to lead to considerate participation and long-term holding. The following options apply in order to vest xTREB back into TREB:

- **Option 1:** A 3-month vesting period with zero fees, tailored for users committed to long-term participation, wishing to avoid any burn fees.
- **Option 2:** A 50% burn fee coupled with a 1-month vesting period, offering quicker access to tokens but requiring the sacrifice of half of the staked amount, adding a risk-reward dynamic.
- **Option 3:** Immediate token release accompanied by a steep 75% burn fee, catering to those seeking instant liquidity but willing to incur a significant cost for immediacy.

These options introduce a nuanced layer of strategic depth to the tokenomics, enabling users to select a vesting plan that aligns with their individual investment goals and risk tolerance. In essence, xTREB is a multi-faceted financial instrument, adding complexity, choice, and opportunity to the Treble ecosystem.

5. Initial DEX Offering (IDO)

5.1 Launchpad

The Treble IDO launchpad is more than a singular, inaugural event; it is a foundational feature designed to host a variety of future projects. Treble launchpad serves as the proving ground for the Treble IDO, establishing a high-quality benchmark for all subsequent token launches. Designed for reusability and scalability, the launchpad is a cornerstone in the Treble ecosystem, offering a streamlined and efficient avenue for the introduction of new tokens and projects.

5.2 Referral System

To catalyze community engagement and accelerate platform growth, Treble incorporates a robust referral system. Users have the opportunity to earn a 3% commission on funds raised through their unique referral codes. This mechanism not only incentivizes broader distribution and adoption of TREB tokens but also rewards proactive community members for their contributions. In essence, the referral system creates a synergistic environment that benefits both the referrers and those they bring into the ecosystem.

5.3 Fund Allocation

A strategic allocation of the funds raised during the IDO is paramount for the platform's success. Specifically, 20% of these funds will be channeled into providing the initial liquidity for TREB/ETH liquidity pools on Treble. This liquidity serves as the bedrock for a stable and resilient trading environment in the platform's early stages. The remaining funds will be allocated to meet various project needs, including but not limited to, development, marketing initiatives, and strategic partnerships.

5.4 Token Distribution

Users participating in the IDO will receive 20% of their TREB tokens as liquid, tradable assets. The remaining 80% will be issued as xTREB, the platform's governance token, and will be subject to a range of vesting options designed to align with various investment strategies.

6. Liquidity Pools and Farming Mechanisms

6.1 Liquidity Pool Creation

Treble is committed to launching a diversified set of liquidity pools (LPs) on Base Network right from the start. These pools are strategically designed to cater to various investor needs and risk profiles. The initial lineup includes:

- **TREB/ETH:** This is the primary liquidity pool, essential for establishing the market presence of the TREB token.
- **TREB/USDC:** Aimed at risk-averse investors, this stablecoin pool offers a lower-volatility trading environment.
- **ETH/USDC:** This foundational pool facilitates easy swaps between Ethereum and USDC, serving as a key liquidity source for the ecosystem.
- **USDC/axlUSDC:** This unique pool features axlUSDC, Axelar's variant of USDC, and Coinbase's native USDC.

As the platform evolves, Treble will continue to introduce new LP pairs.

6.2 Farming Mechanism Overview

Treble's farming mechanism upgrade is structured around a 24-hour operational cycle, fortified by a set of well-defined rules that ensure equitable and transparent user engagement. Key elements include:

- **Joining the Farm:** Upon user initiation, assets are deposited and rewards start accruing at the commencement of the next 24-hour cycle.
- **Leaving the Farm:** Assets remain productive, earning rewards until the conclusion of the ongoing 24-hour cycle. Post-cycle, they become eligible for withdrawal.
- **Earning Halt:** Should a user opt to exit, their earnings are paused at the onset of the subsequent cycle, requiring manual withdrawal action from the user.

6.3 Reward Claiming Options

Treble provides a variety of reward claiming options, each tailored with specific rules and advantages to suit diverse user preferences:

- **Easy Farm:** Designed for those who favor frequent interactions, this option imposes no deposit timers and allows for reward claims every 12 hours.
- **Daily Claim:** Ideal for users who prefer a daily touchpoint with the platform, rewards become claimable once every 24-hour cycle.
- **Weekly Claim:** Geared towards long-term investors, this option permits reward claims at the conclusion of every 7th cycle.

6.4 Game Theory in Farming

Treble's farming architecture is designed around game theory, offering users a strategic playground for optimizing their returns. Treble presents a variety of choices, from multiple reward claiming options to the deflationary attributes of xTREB, and opportunities for APR and price arbitrage. This intricate decisionmaking landscape transforms Treble into more than just a financial platform; it becomes a strategic arena that rewards calculated, informed decision-making. The game-theoretic elements infuse a layer of intellectual engagement, making Treble not just profitable but also intellectually stimulating.

7. Stable-Swap

7.1 Concept

Treble is set to unveil a stable-swap feature, modeled after the Curve protocol's efficient stable coin trading mechanism. This addition significantly broadens Treble's utility, offering users an expanded toolkit for asset management.

7.2 Functionality

The stable-swap feature is designed for optimal stable coin trading, allowing our users to seamlessly switch between various stable coins like native USDC, axlUSDC, and USDT with minimal slippage and transaction fees. Beyond just facilitating trades, the algorithm behind this feature is designed to mitigate impermanent loss and to provide liquidity providers with competitive yields.

8. Cross-Chain Integration with Swing

8.1 Cross-Chain Swaps

Treble has entered into a strategic partnership with Swing to enable frictionless cross-chain swaps. This integration amplifies Treble's multi-chain functionalities, granting users the flexibility to effortlessly transfer assets between various networks.

8.2 Aggregation

In addition to cross-chain capabilities, Treble will introduce single-chain aggregation via Swing. This feature will optimize trading by minimizing slippage and maximizing returns.

9. Integration with Algebra DEX Engine V4 Automated Market Maker (AMM)

9.1 Concept

Treble has partnered with Algebra DEX Engine to be the first DEX to integrate the advanced V4 AMM system on Base Network, which will ultimately enhance our liquidity and staking options. This integration is not just an incremental improvement; it's a game-changing addition that will allow our users to customize their investment strategies and to maximize their yield through trading fees.

9.2 Improved Capital Efficiency

The V3 AMM system introduced concentrated liquidity, allowing liquidity providers to allocate capital within specific price ranges for optimal yield. The V4 AMM system further optimizes capital efficiency, through more stringent control over liquidity positions and enhanced algorithms for liquidity management. This feature is particularly beneficial for experienced DeFi users seeking more intricate and rewarding liquidity provisions.

9.3 Enhanced Fee Structure

Treble's V4 AMM introduces a more dynamic fee structure, allowing for variable fees based on market conditions, trading volume, and other factors. This may incentivize liquidity providers and potentially reduce slippage for traders.

9.4 Advanced Order Types

Treble's V4 will introduce more advanced order types, such as limit orders, stoploss orders, and time-weighted average price (TWAP) orders. This will provide traders with more flexibility and better risk management tools.

10. Security

10.1 Security Initiatives

Security is a major concern for Treble. To safeguard the integrity of Treble, all smart contracts will undergo rigorous audits conducted by our auditing partner. If in a rare case a security loophole is determined, there is a clear rapid response plan. All contracts' addresses and audit reports are published for independent monitoring and, therefore, in full view of the community upon verification.

11. Roadmap

11.1 Q4 2024

- **Cross-Chain Swaps**

Powered by Swing, our cross-chain swaps will make it easy for our users to onboard initial liquidity, regardless of what chain their assets are on.

- **Fiat On-Ramp Integration**

This will allow for even a brand new crypto user to be easily onboarded from the very start.

- **Deploy Treble Launchpad**

Announce Treble IDO

- **IDO for \$TREB Token**

Featuring a 3% referral code that is only possible to generate after making a minimum contribution to the Treble IDO

- **Audit**

Audit by ChainAudits.io

11.2 Q1 2025

- **Decentralized Crypto Spending - No KYC Required**

Enabling users to spend their digital assets freely, without KYC constraints.

- **Lending Integration**

Augmenting Treble to become a holistic DeFi hub with lending and borrowing features.

- **Stable Swap Integration**

Upgrading to a more efficient stablecoin trading experience.

- **Governance**

Empowering \$xTREB holders to guide the future of Treble

- **Launchpad IDO on Treble**

The first partner IDO on Treble Launchpad.

- **\$TREB TGE**

Initial supply is to be distributed between private and public round participants.

- **Launch V2 LP Farms**

Unveiling an advanced version of our Liquidity Pool Farms, packed with innovative features and improved benefits.

- **Introduce \$xTREB Token Staking**

Debuting a new staking mechanism for \$xTREB, enhancing utility and rewards.

- **V4 AMM System Integration**

Expanding liquidity provision and market making possibilities with the integration of the V4 AMM system.

- **Launch \$TREB Rewards**

Initiating a rewards program to incentivize \$TREB token holding and staking.

11.3 Q2 - Q3 2025

- **Custom Farms**

Allowing Treble users to create new LP farms by providing their own custom incentives.

- **AI-Powered Trading Bot**

Integrating an advanced AI trading bot to augment trading strategies.

- **Custom V4 Hooks**

working in collaboration with Algebra to enhance our AMM features.

- **Institutional KYC Contracts**

Making Treble a destination for tokenized securities and other security tokens.

- **Limit Orders**

Allowing our users for an unparalleled UI and UX.

- **Gas-less Swaps**

Simplifying our UX even more.

- **Custom Analytics**

Providing tailored analytics tools for users to effectively monitor and manage their assets.

- **MEV Bot protection**

Adding a layer of protection for our users.

- **Perpetuals and Leverage Trading Integration**

Incorporating perpetuals and leverage trading for a dynamic trading experience on Treble.

12. Conclusion

In conclusion, Treble offers a cutting-edge approach to DeFi with innovative features and robust foundational technology. Highlights include the Treble Launchpad, Cross-Chain Swaps, and V4 AMM. Our tokenomics and commitment to security demonstrate our dedication to building a long-term ecosystem.

Treble stands out with its unique approach to farming, liquidity management, and user engagement, promising dynamic and engaging experiences. For investors, stakeholders, and users, Treble provides a glimpse into the future with the most advanced technological solutions.