

# RootSwap

A one point destination to swap your cryptos on Rootstock Blockchain.

## Project Description

### Project Overview

- **RootSwap** is a decentralized exchange (DEX) built on the Rootstock Blockchain. It aims to provide users with complete control over their assets and transparent operations while enabling them to swap cryptocurrencies seamlessly. By forking UniswapV2 and deploying it on the Rootstock Blockchain, RootSwap allows users to exchange their cryptocurrencies while contributing to the development and improvement of the Rootstock ecosystem.
- **Problem:** Traditional banks have control over users' money, lacking transparency and the ability to withdraw funds in emergencies. Centralized exchanges also suffer from similar issues, reducing user control and transparency.
- **Solution:** RootSwap provides a decentralized alternative by leveraging blockchain technology. It allows users to swap cryptocurrencies directly on the Rootstock Blockchain, offering complete control and transparency over their assets.
- **Potential Impact:**
  - ✧ RootSwap empowers users by giving them full authority over their assets and promoting transparency. It eliminates the need for intermediaries and centralized control, offering a more inclusive and accessible platform for exchanging cryptocurrencies. By contributing fees to projects and the protocol's development, RootSwap supports the growth of the Rootstock ecosystem.
  - ✧ Additionally, users can earn RootSwap Tokens by providing liquidity, creating a passive income opportunity.

### Background & Context

- The problem RootSwap aims to address is the lack of control, transparency, and accessibility in the traditional banking system and centralized cryptocurrency exchanges. This problem is significant for several reasons:
  - ✧ **Lack of Control:** In the traditional banking system, individuals deposit their money with the expectation that they have control over it. However, banks have the ultimate authority and can restrict access to funds, impose limitations, or

even refuse withdrawals in certain situations. This centralized control undermines individuals' financial autonomy and can lead to trust issues.

- ✧ **Lack of Transparency:** Banks and centralized exchanges often lack transparency in their operations. Customers have limited visibility into how their funds are managed, the allocation of fees, or the overall financial health of the institution. This opacity can erode trust and create skepticism among users.
  - ✧ **Centralized Points of Failure:** Centralized exchanges act as intermediaries between users during cryptocurrency transactions. However, they are susceptible to hacking, technical failures, and even fraud. Incidents of exchange hacks and theft of user funds have occurred, resulting in significant financial losses for individuals.
  - ✧ **Limited Accessibility:** Traditional banking services and centralized exchanges may not be accessible to everyone, particularly in regions with underdeveloped financial infrastructure. This lack of accessibility hinders individuals' participation in the global financial system and restricts their ability to utilize cryptocurrencies as a medium of exchange or investment.
- By leveraging blockchain technology and decentralization, RootSwap addresses these problems. It provides users with complete control over their assets, transparent operations recorded on the Rootstock blockchain, and eliminates the need for intermediaries. This ensures that users have direct ownership and authority over their funds, enhancing financial autonomy and trust.
  - Moreover, RootSwap contributes to the development of the Rootstock ecosystem by allocating fees to projects and protocol improvements. This community-driven approach encourages innovation, fosters growth, and supports the broader adoption of decentralized technologies.

## Value Proposition

- **Complete Control:** RootSwap empowers users by providing them with complete control over their assets. Unlike traditional banks and centralized exchanges, RootSwap operates on a decentralized platform where users have sole ownership and authority over their funds.
- **Transparency:** RootSwap leverages the transparency of blockchain technology to offer full visibility into the exchange operations. All transactions and smart contract interactions are recorded on the Rootstock blockchain, ensuring a transparent and auditable system thus eliminating doubts about hidden fees or manipulations.
- **Decentralization and Security:** RootSwap operates on the Rootstock Blockchain, a secure and robust blockchain infrastructure. By decentralizing the exchange process,

RootSwap eliminates single points of failure and minimizes the risk of hacks, fraud, or technical glitches associated with centralized exchanges.

- **Accessibility:** RootSwap promotes financial inclusivity by providing a platform that is accessible to anyone with an internet connection. Traditional banking services and centralized exchanges may have geographical restrictions or require extensive documentation. RootSwap removes these barriers and enables users from anywhere in the world to participate in cryptocurrency trading, fostering global economic participation.
- **Contribution to the Rootstock Ecosystem:** RootSwap goes beyond being just a decentralized exchange. It actively contributes to the development and growth of the Rootstock ecosystem. A portion of the fees generated by the exchange is allocated to projects being built on the Rootstock Blockchain, supporting innovation and expansion. This community-driven approach ensures that users' trading activities directly benefit the ecosystem they are a part of.
- **Passive Income Opportunities:** RootSwap provides users with the opportunity to earn passive income through liquidity provision. By adding liquidity to the exchange, users will be able to earn RootSwap(ROOTS) Tokens, creating a steady income stream. This incentivizes users to participate actively in the exchange, contributing to the liquidity and stability of the platform.

## Technical Description

- **Forked UniswapV2:** RootSwap will be built on a fork of UniswapV2, a popular decentralized exchange protocol. UniswapV2 provides the foundation for the exchange functionality, including token swapping and liquidity provision.
- **Rootstock Blockchain:** RootSwap operates on the Rootstock Blockchain, a smart contract platform based on the Bitcoin blockchain. Rootstock utilizes a merge-mining mechanism, securing transactions through the Bitcoin mining network while enabling smart contract functionality. This integration ensures a secure and robust environment for RootSwap's operations.
- **Smart Contracts:** RootSwap will deploy smart contracts on the Rootstock Blockchain to handle the core functionalities of the exchange. These smart contracts include the token swap mechanism, liquidity pool management, fee distribution, and user interactions.
- **UI Integration:** RootSwap will feature its own user interface (UI) that interacts with the underlying smart contracts. The UI allows users to connect their wallets, view available tokens, execute token swaps, provide liquidity, and track their transactions and earnings.

- **Fee Distribution:** RootSwap introduces modifications to the UniswapV2 smart contracts to implement a fee distribution mechanism. A portion of the fees generated from the exchange transactions is allocated as follows: 0.01% to projects on the Rootstock Blockchain, 0.02% to protocol development and improvement and 0.3% to liquidity providers. This mechanism incentivizes users to participate in the exchange and contribute to the ecosystem's growth.

## Market Analysis

- **Growing Cryptocurrency Market:** The cryptocurrency market has been experiencing rapid growth, with increasing adoption and interest from both individuals and institutional investors. The TAM for decentralized exchanges and blockchain-based financial services is expanding as more people seek alternatives to traditional banking and centralized exchanges.
- **Increasing Demand for Decentralized Exchanges:** Decentralized exchanges offer unique advantages such as increased security, user control, and transparency. As people become more aware of the limitations and risks associated with centralized exchanges, there is a growing demand for decentralized alternatives.
- **Contribution to the Ecosystem:** We will make modifications to the Uniswap's smart contracts to automatically transmit 0.01% of the total fees for the projects building on the Rootstock Blockchain which has not been done before by any decentralized exchange on the Rootstock Blockchain. RootSwap's fee distribution mechanism, allocating funds to projects, differentiates it from other competitors.

## Project Plan

- **Development and Testing:** The first step is to complete the development of the RootSwap platform, including the smart contracts, user interface, and backend infrastructure. Rigorous testing should be conducted to ensure the stability, security, and functionality of the platform.
- **Security Audits:** Engage reputable third-party security auditors to conduct comprehensive audits of the smart contracts and platform infrastructure. This step is crucial to identify and address any vulnerabilities or weaknesses in the system before launching.
- **User Acquisition and Marketing:** Develop a comprehensive marketing strategy to create awareness and generate interest in RootSwap. Utilize various channels such as social media, cryptocurrency forums, partnerships with influencers, and targeted online advertising to reach the target audience. Highlight the unique features and benefits of RootSwap, emphasizing control, transparency, and the contributions to the Rootstock ecosystem.

- **Community Engagement:** Foster an active and engaged community around RootSwap by organizing events, webinars, and AMA (Ask Me Anything) sessions. Engage with potential users, answer their queries, and gather feedback to continuously improve the platform based on user needs and preferences. Building a strong community will contribute to word-of-mouth referrals and user retention.
- **Liquidity Provider Incentives:** Implement incentives to attract liquidity providers to the RootSwap platform. Offer competitive rewards and staking opportunities for users who provide liquidity to the exchange. This will enhance liquidity on the platform and incentivize users to participate actively in the ecosystem.
- **Partnerships and Integrations:** Collaborate with other projects in the cryptocurrency space, particularly those building on the Rootstock Blockchain, to explore partnerships and integrations. This can expand the reach and functionality of RootSwap, attracting more users and increasing the utility of the platform.
- **Ongoing Development and Improvement:** Continuously iterate and improve the RootSwap platform based on user feedback, market dynamics, and emerging trends. Introduce new features such as farming, staking, and limit orders to enhance the user experience and cater to evolving user needs. Regular updates and enhancements will keep the platform competitive and relevant in the market.
- **Compliance and Regulatory Considerations:** Stay updated with the evolving regulatory landscape in the cryptocurrency space. Ensure compliance with relevant laws and regulations in the jurisdictions where RootSwap operates. Collaborate with legal experts to navigate any regulatory challenges and maintain a compliant and trustworthy platform.
- **User Support and Education:** Provide responsive and efficient user support channels to assist users with any queries or issues they may encounter. Additionally, invest in educational resources such as tutorials, guides, and documentation to empower users with the knowledge to navigate the RootSwap platform effectively.

## Team and Resources

- **Team Members:**
  - ✧ Shubham Gupta: Full-Stack Blockchain Developer with a strong knack for Entrepreneurship. Shubham will bring technical expertise and leadership to the development and implementation of Rooted.
  - ✧ Twitter Id: <https://twitter.com/0xmysticShub>
- **Team-Market Fit:**

- ✧ The team possesses the necessary skills and expertise to develop and launch RootSwap successfully. Shubham Gupta's experience as a Full-Stack Blockchain Developer, coupled with their entrepreneurial mindset, ensures they are well-suited to lead the project. The team's understanding of the decentralized exchange space and their alignment with the principles of blockchain technology and community-driven initiatives contribute to their strong team-market fit.

➤ **Resources Required:**

- ✧ **Development Tools:** Solidity, Remix, Rootstock Blockchain, uniswapV2, React, and Metamask are among the development tools that will be utilized to build and deploy RootSwap. These tools are essential for creating the smart contracts, user interface, and backend infrastructure.
- ✧ **Security Auditors:** Engaging reputable third-party security auditors is essential to conduct comprehensive audits of the smart contracts and platform infrastructure. This ensures that any vulnerabilities or weaknesses are identified and addressed, enhancing the security and trustworthiness of RootSwap.
- ✧ **Marketing and Community Building:** Allocating resources for marketing and community-building efforts will be crucial to create awareness and attract users to RootSwap. This includes social media marketing, influencer partnerships, content creation, and community engagement activities to foster an active and supportive user base.
- ✧ **Partnerships and Integrations:** Collaborating with other projects in the cryptocurrency space, particularly those building on the Rootstock Blockchain, may require allocating resources for partnership negotiations, technical integrations, and joint marketing efforts. These partnerships can help expand the reach and functionality of RootSwap.
- ✧ **Ongoing Maintenance and Support:** Continuous development, bug fixes, platform updates, and user support will be essential to ensure the smooth operation of RootSwap. Allocating resources for ongoing maintenance and support activities will help address user needs, improve the platform, and provide a positive user experience.

## **Conclusion**

- RootSwap brings the power of decentralized finance to the Rootstock Blockchain, providing users with a transparent and user-centric decentralized exchange experience. With its innovative approach, RootSwap offers complete control over assets, seamless cryptocurrency swaps, and automatic fee distribution to support projects, protocol development, and liquidity providers. By leveraging the capabilities of the Rootstock Blockchain and UniswapV2, RootSwap enables secure and efficient trading while contributing to the growth and development of the Rootstock ecosystem. Join RootSwap and embrace the benefits of decentralized finance with full control and transparency over your digital assets.