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# CEXSWAP WHITE PAPER

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<https://www.cexswap.org>

# ABSTRACT

In 2020, the development of DeFi (decentralized finance) is in full swing. So far, the total value locked (TVL) in DeFi has reached US\$30 billion. According to some analysis, the monthly trading volume of the decentralized trading platform (DEX) in January 2021 exceeded \$50 billion, setting a new historic record. As a leader in the DEX industry, the market value of UniSwap (UNI) also surpassed US\$4 billion, ranking 12th in crypto asset market value.

We believe UniSwap is a DEX pioneer, and SushiSwap's liquidity mining has a good early dividend. However, these are products developed in the early stages of DEX, and issues such as high transaction costs, high slippage, and long confirmation times have not been resolved.

CEXSwap is an evolved version of DEX. In the future, the advantages consist of the expansion of governance, the continuous optimization of business models, and the rapid development of the number of token pools, the market value of CEXSwap will have good prospects for development.



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# OVERVIEW

CEXSwap, which integrates automatic market making (AMM), community autonomy (DAO), on-platform currency token mining (Staking) and has a new transaction fee distribution mechanism, aims to promote automatic exchange transactions of all high-quality digital currencies. Liquidity is automatically provided on-chain to provide users with a safer and more reliable trading experience with diverse assets and high-cost performance.

Greater transaction activity can create more value for users and at the same time bring user aggregation effects and ecological prosperity. As a fully functional DEX, we combine the advantages of low transaction fees and the prosperity of the Ethereum ecosystem and are compatible with Ethereum and various smart contracts.

CEXSwap is a decentralized exchange that can be deployed on an EVM-enabled chain. All transactions are performed on-chain. It supports decentralized digital currency trading, liquidity mining, platform currency pledge dividends.



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# OVERVIEW

CEXSwap is completely decentralized, it can freely deposit tokens for exchange and can be freely withdrawn. without registration, identity verification and withdrawal restrictions from centralized exchanges. Its counterpart is not other commercial users, it trades with the token pool and has an automatic market making model to calculate the trade price.

AMM is one of the features of CEXSwap, which gathers everyone's liquidity and then markets according to the algorithm. It is basically an automatic algorithm-based market making service, which can provide unlimited liquidity, can have a large order size and does not have to worry about a small pool of liquidity.



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# OVERVIEW

## Automatic Market Maker

The automatic market maker trading section of AMM is one of the core sections of CEXSwap, it provides users with low complexity, low gas cost, and decentralized digital currency transactions that do not require off-chain input. This allows investors to easily and quickly obtain income while also using provide liquidity to further increase the value of income.

## High liquidity efficiency and low slippage

CEXSwap extends the based low slippage model to volatile assets, thereby dynamically updating the reserve weight of the liquidity pool to maintain the reserve value at a 1:1 ratio. This allows CEXSwap's AMM transactions to expand liquidity within the common price area while retaining the incentive for arbitrageurs to rebalance the fund pool.



# OVERVIEW

## Optimize temporary losses

CEXSwap uses the virtual balance to extend the concept of assets with variable exchange rates. Arbitrageurs no longer take value from liquidity providers in the form of temporary losses but balance the distribution of tokens in the AMM pool to deal with token transactions.



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# ABOUT

CEXSwap is a decentralized exchange (DEX) open source project that will work for any EVM compatible chain.

It allows to trade safely and accurately using slippage and price Impact. It will work like other DEX but will be fully governed by the community using the governance token (\$CEX).

CEXSwap will provide basic DEX functions, and at the same time provide service functions to enable Yield Farming so that users can utilize \$CEX token as much as possible. Through this, users can access new features that were not used in the existing network.

Most exchanges maintain an order book and facilitate matches between buyers and sellers.

CEXSwap smart contracts hold liquidity reserves of various tokens, and trades are executed directly against these reserves.



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# ABOUT

Prices are set automatically using the constant product  $x * y = k$  market maker mechanism, which keeps overall reserves in relative equilibrium. Reserves are pooled between a network of liquidity providers who supply the system with tokens in exchange for a proportional share of transaction fees.

We are planning to create the most user-friendly decentralized exchange. We've seen many projects which work just fine. However, there's a major problem with each of these. They are just too complicated for newbies to use.

We'd like to change that and create the most foolproof DEX possible. This is what crypto should be about after all.

An important feature of CEXSwap is the utilization of a factory contract that deploys a separate exchange contract for each token pair. These exchange contracts each hold independent reserves of token pairs, this allows trades between the token pair based on the relative supplies.



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# FEATURES

CEXSwap allows you to trade safely and accurately using slippage and Price Impact.

CEXSwap is fully governed by his community through the usage of \$CEX token. Community vote for swap fee, slippage fees, referral share, liquidity providers earned commission, treasury management, etc.

A total of 100 million \$CEX tokens will be issued, but the CEXSwap team will try not to depreciate the value of \$CEX tokens as much as possible through CEXSwap's unique deflationary policy. All tokens to be burned will be disclosed transparently.

Support of referral system. Users can share his referral link to his friend to earn some share for each swap.

IDO Launchpad for a decentralized fundraising enabling projects to raise capital and promise safety to early stage investors.

CEXSwap offers users a way to make money with cryptocurrency by participate in crypto lottery games



# KEY TECHNICAL CORE

## Functional Concept

AMM (Automatic Market Maker) is currently the most popular trading model in the DeFi field. It is different from the order book matching method. AMM uses a fixed product method to convert tokens in the trading pool. Transactions can be automatically executed to ensure the liquidity of trading pairs.

AMM has two participants, the trader and the liquidity provider (LP). LP will first inject a certain amount of tokens into the pool to provide transaction liquidity while earning transaction fees paid by traders. For liquidity providers, the act of providing liquidity to earn income is called liquidity mining.



# KEY TECHNICAL CORE

## Functional Concept

### Liquidity pool

A system account that stores mortgage tokens and has no private key control. The account mainly contains two tokens (as proof of liquidity held by the market maker and can be transferred). Each Token has its own liquidity pool to calculate the relative price of the two.

### Liquidity

Two kinds of assets can be exchanged in the liquidity pool. Mortgage these two assets into the liquidity pool can be considered to provide liquidity for the liquidity pool. When the mortgaged assets are retrieved, the user can automatically obtain the money collected during the exchange transaction related fees.



# KEY TECHNICAL CORE

## Functional Concept

### Market maker

Any individual, organization, or institution that pledges tokens to the liquidity pool.

### Market-making formula

A constant product is used as the market-making formula:  $x * y = k$ ,

$x$  represents the number of  $x$  tokens, and  $y$  represents the number of  $y$  tokens. During the exchange process, the value of  $k$  remains unchanged, and will only change when the market maker increases/decreases liquidity.



# KEY TECHNICAL CORE

## Functional Concept

### Increase liquidity

In order to obtain the commission during the exchange process, market makers can mortgage their tokens to the liquidity pool, which mainly includes two situations:

**Create a liquidity pool:** If there is no liquidity pool for the token pair on the current chain, the market maker needs to mortgage a fixed number of tokens in proportion to the current market conditions. This step is equivalent to initializing the liquidity pool and price the tokens. If the market maker does not price according to the current market, then the arbitrageur finds that there is a price difference, and exchange behavior will occur until the price is close to the current market price. In this process, the relative price of tokens is adjusted entirely through market demand.

**Increase liquidity:** If there is a liquidity pool for the token on the current chain, when the market maker mortgages the token pair, it needs to mortgage the two tokens separately according to the exchange ratio of the current liquidity pool. We use the current exchange rate price as a benchmark to calculate the amount of another token that needs to be mortgaged. If the ratio of mortgaged tokens does not meet the exchange ratio of the current liquidity pool, the transaction will fail. In this way, it is possible to avoid making market makers lose money due to the existence of arbitrageurs.

After the mortgage is completed, the system will lock the mortgaged tokens and issue a liquidity certificate to the user's account. The liquidity certificate can also be transferred.



# KEY TECHNICAL CORE

## Functional Concept

### Exchange tokens

When there is a liquidity pool of a certain token, users can initiate exchange transactions according to their own needs. During the exchange process, a certain handling fee needs to be deducted from the input tokens (this parameter can be initiated through the CEXSwap DAO module). From the classification of transactions, there are a total of two situations as follows:

**Purchase tokens:** If a user purchases a certain fixed amount of tokens, the system will calculate the amount of another token that the user needs to pay based on the number of tokens purchased and the current stock of the liquidity pool. If the number of tokens is less than the value calculated by the system, the transaction fails.

**Sell tokens:** If the user sells a fixed number of tokens, the system will calculate the amount of another token that the user gets based on the number of tokens sold and the current liquidity pool. If the number of tokens is greater than the value calculated by the current system, the transaction fails.





# KEY TECHNICAL CORE

## Advanced Solutions

Two inherent problems hindering the development of AMM.

### Impermanence loss

The most important and common unknown risk faced by liquidity providers is impermanent loss (that is, over time, there is a value difference between directly depositing tokens in the AMM pool and merely holding tokens in the wallet). As long as the market price of the tokens in the AMM pool deviates from either side, impermanent losses will occur. Since the AMM pool cannot automatically adjust the exchange rate, arbitrageurs need to buy low-priced assets or sell high-priced assets until the price provided by AMM matches the external market price. The profits obtained by arbitrageurs are drawn from the pockets of liquidity providers, which brings losses to the liquidity providers.



# KEY TECHNICAL CORE

## Advanced Solutions

### Low liquidity

AMM needs a lot of liquidity to reach the slippage level of exchange based on the order book model, and it has been criticized for this. This is because most of the liquidity in AMM is only available when the pricing curve starts to turn to the exponential curve. Therefore, due to the high slippage, rational traders will not use most of the liquidity.

AMM liquidity providers are unable to determine the price offered to counterparties, which makes some people call AMM “lazy liquidity” because of its low utilization and insufficient supply. However, market makers on order book exchanges can precisely control the price points at which they want to buy and sell tokens. This brings high capital efficiency, but at the same time requires its active participation and supervision of the supply of liquidity.



# KEY TECHNICAL CORE

## Advanced Solutions

CEXSwap's new design model is solving most of the limitations of the first generation of AMM.

**AMM with high liquidity efficiency and low slippage:** As we mentioned in the core business section, CEXSwap extends low slippage model to volatile assets. Under this model, due to the increase in capital utilization, liquidity providers can earn more fees (although the cost of each transaction is lower), but arbitrageurs can still benefit from the re-adjustment of the fund pool.

**Reduce the loss of impermanence:** By virtual balance and decay period, CEXSwap's AMM pool can maintain accurate exchange rate, even if the pricing of the tokens deviates due to changes in external market prices, the exchange rate is no longer determined by the arbitrageur, but the virtual balance provides price updates and adjusts the weight of AMM, so the internal exchange rate matches the external market price. The advantage of this is that arbitrageurs no longer take profits from the pockets of liquidity providers in the form of irregular losses.

On the contrary, arbitrageurs only need to balance the distribution of tokens in the AMM pool to deal with token transactions. CEXSwap always encourages the liquidity pool to restore balance, because the liquidity providers of the lower-weight reserve pool earn a higher return on investment until the AMM pool is adjusted to the 50/50 weight and then it returns to normal. In general, users and token teams are more confident in their deposited liquid funds, believing that they can generate profits through transaction fees and will not depreciate due to regular market price fluctuations.



# KEY TECHNICAL CORE

## Advanced Solutions

### Decentralization

The main advantage of CEXSwap comes from its complete decentralization. There are two specific manifestations: a transparent transaction method and an anti-censorship use method.

In DeFi's AMM transactions, user funds are always stored in their own wallets, and transactions are achieved through the interaction of contracts, rather than the traditional recharge and withdrawal methods, which can avoid problems such as fraud and theft on centralized trading platforms.

The anti-censorship is embodied in the anti-censorship of the user's identity and the anti-censorship of the transaction pool. Users can conduct transactions without KYC and the opening of the transaction pool does not need to be reviewed. A large number of tokens in the initial stage can be circulated by setting up the transaction pool. Therefore users can participate in the early stage, a buy potential project tokens and then obtain high returns.



# KEY TECHNICAL CORE

## Advanced Solutions

### Decentralization

In addition, automatic exchange through a fixed product can ensure that transactions on CEXSwap are completed in time and have sufficient liquidity, even large transactions can be completed. Therefore, in general, the motivation for traders to use CEXSwap comes from transparent and decentralized trading methods, high returns from early projects, and arbitrage opportunities on and off the chain.



# ECONOMIC AND GOVERNANCE

## \$CEX Token Information

When CEXSwap goes online, it will also simultaneously list the governance token \$CEX of the CEXSwap platform. \$CEX 100% liquidity mining is generated, and there is no pre-mining at all. Users can obtain \$CEX by providing liquidity of related trading pairs on the CEXSwap platform. \$CEX holders will also have related rights and interests such as voting on the governance of the CEXSwap ecosystem.

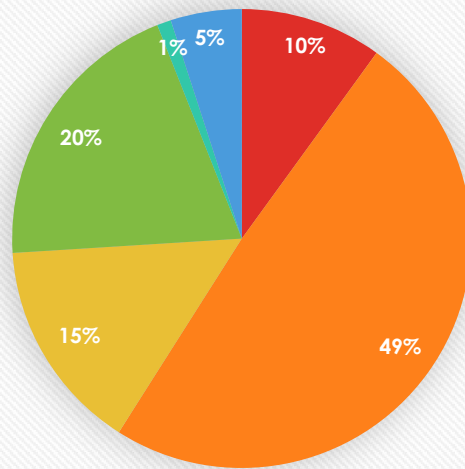
- **Name:** CEX Swap
- **Symbol:** \$CEX
- **Decimal:** 18
- **Total Supply:** 100,000,000 \$CEX



# ECONOMIC AND GOVERNANCE

## \$CEX Token Distribution

Token Distribution



■ Security Audit & Marketing  
■ Community  
■ Team  
■ Backers and core contributors  
■ Exchange (Initial Supply)  
■ Launchpad

- **Security Audit & Marketing:** 10,000,000 (10%)
- **Community:** 49,000,000 (49%)
- **Team:** 15,000,000 (15%)
- **Backers and core contributors:** 20,000,000 (20%)
- **Exchange (Initial Supply):** 1,000,000 (1%)
- **Launchpad :** 5,000,000 (5%)





# ECONOMIC AND GOVERNANCE

## \$CEX Token Vesting

Token Vesting: **Team, Security Audit & Marketing, Backers and core contributors**

Vesting Period: **50 months (2% each month after TGE)**

**Team:** 300,000 \$CEX per month

**Security Audit & Marketing:** 200,000 \$CEX per month

**Backers and core contributors:** 400,000 \$CEX per month



# ECONOMIC AND GOVERNANCE

## Governance

CEXSwap adopts governance contract operations. All major decisions including but not limited to: swap parameters of liquid mining pools, swap fee, decay period, etc. will all be initiated through the community governance and vote on the proposal to achieve true decentralization.

The \$CEX token is a governance token. \$CEX holders can stake their tokens to participate in the CEXSwap Ecosystem instant governance and DAO governance, including CEXSwap treasury management.

CEXSwap governance solves all the wrong problems in the operation of modern organizations and the low degree of decentralization of the trading platform. The complete CEXSwap governance provides every token holder with an opportunity to shape the organization. There is no hierarchical structure, which means that everyone can propose every innovative idea and be considered by the entire organization. A set of pre-established rules and voting system that every coin holder knows before joining the organization will not create any room for dispute. In addition, since making suggestions and voting all require investors to spend a certain amount of tokens, this prompts them to evaluate their decisions instead of wasting time on ineffective solutions.



# ECONOMIC AND GOVERNANCE

## Governance

CEXSwap has two types of governance:

### Instant governance

In instant governance user use his voting power to adjust CEXSwap parameters.

Users who stake their \$CEX tokens can vote directly on major parameters of the swap and aggregation via instant governance, which literally has an immediate effect.

On the aggregation, a staker can vote for referral reward distribution between the treasury and the referrers.

On the swap, factory governance and pool governance are determined by voting.

Factory governance is responsible for parameters shared by all pools, such as the default swap fee, the default price impact fee, the default decay period, the referral reward and the governance reward. These parameters are regulated by voting with \$CEX tokens.

Pool governance will include the configuration of parameters that are specific to each pool, such as the swap fee, the price impact fee and the decay period. Pool governance is done with LP tokens which are granted to liquidity providers. The \$CEX token is not used in pool governance.



# ECONOMIC AND GOVERNANCE

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## Governance

### DAO governance

Influence major CEXSwap ecosystem improvements.

CEXSwap Ecosystem DAO governance offers a clear and user-friendly process for proposing protocol improvements and voting for them. Unlike instant governance, which is focused on swap parameters, CEXSwap Ecosystem DAO governance focuses on major improvements to the entire CEXSwap ecosystem and to the DeFi space at large.



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# ROADMAP

## Q2 2022:

- Project Idea's & Prototype design
- Team Building
- Pitch deck Completed
- White paper
- Website Creation & Launch



## Q3 2022:

- \$CEX Token Creation
- Strategic Plan
- Swap & Staking Dapp Development
- Launchpad



## Q4 2022:

- Swap & Staking Dapp's Launch
- Project Launched to Public
- Partnerships
- Token listing on Exchanges



## Q1 2023:

- Governance Dapp's Development
- Lottery Development
- IDO Launchpad Development
- Strategic Partnerships
- Additional features



# FUTURE PLANNING

CEXSwap is a highly innovative DeFi project that combines the advantages of the current DEX on the market and combines the characteristics of the centralized exchange platform currency. Based on the rapid development and ecological prosperity, it has great Imagine space and growth space.

The design and implementation of the CEXSwap project are also continuously improving, including how to attract more external assets, innovating more DeFi business models, etc. are the directions we are studying. All community members are welcome to actively participate in and continuously optimize the CEXSwap project.



<https://www.cexswap.org>

# LINKS

Website: <https://www.cexswap.org>

Telegram: [https://t.me/cexswap\\_official](https://t.me/cexswap_official)

Facebook: <https://www.facebook.com/cexswap>

GitHub: <https://github.com/cexswap>

Discord: <https://discord.gg/VG52qPE5qW>

Medium: <https://medium.com/@cexswap>

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