FreeTon DEX Implementation Stage 2 Contest

Contest dates

- **Submission period**: 6 weeks after approving this proposal in the governance interface;
- **Voting period**: 2 weeks after the submission period.

Short description

Implement Stage 2 of the DEX contest with the milestone: “Complex liquidity pool mechanics”.

Stages

- Set of DEX smart contracts (exchange, order book, liquidity pools, etc) with mandatory DeBot interface and optional UI (Stage 1)
- Complex liquidity pool mechanics (pool explorers, pool factories for LP dexes, cross margin and complex FOK IOC order for order-based dexes, etc) (Stage 2)
- Complex automated market maker mechanics, additional necessary improvements like UI/UX, governance, voting or yielding mechanics, etc (Stage 3)

Motivation

The goal of this contest is to prove the ability for Free TON blockchain to perform fast and cheap non-custodial exchange operations such as exchange of tokens, loans, IOUs or other types of liabilities.

The Free TON DEX, or FreeDEX for short, should be general purpose and let the users/governance create an arbitrary number of order books and/or liquidity pools, manage the order and transactions fees, support different types of referral programs and of course yielding mechanics for the participation in the dex marketing and development.

Furthermore the primary differentiator of FreeDex should be support for staking through TON depool contracts and voting using TON SMV contracts, support for TIP-3 tokens or its extensions and self-governed structure of the DEX. FreeDex can be either OB (order-book) dex, LP (liquidity provision) dex, any combination of those or any other possible type.

General requirements

The implementation of Stage 2 should include a set of open source smart contracts, as well as the de-bot source code and / or the source code of the web interface / mobile application for the TON network, which will allow:

- Exchange contracts that support instant exchange for AMM, for Orderbook cross-margin and / or complex FOK IOC and / or Limit order;
- Pool factories contracts that allow the creation of new LP / Orderbook pools based on TIP3 token contracts;

- Pool browser with information about the exchange rate, existing pools and their contents. Optional: exchange statistics within a pool, general statistics by pools;
- Simple automated market maker mechanics
- All operations must be performed via the DeBot interface and / or web or mobile interface.

Your application must include:

- Basic economic model and description of the movement of money in the system;
- The overall technical architecture of the solution, including all the listed functions from the section of strict evaluation criteria;
- Detailed technical description of the proposed implementation with the rationale for the chosen approach: smart contracts, level of integration, interfaces;
- Deployed implementation on the Free Ton developer network with the ability to test functionality using the DeBot interface, web or mobile interface.

Fair play

As per Procedural remarks on contests.

Evaluation criteria and conditions for winning

General criteria

When evaluating a proposal, priority will be given to applications that will take into account the following functional, technological and technical features when describing their solutions:

- TIP-3 tokens or their extensions as proof of investment;
- The system makes the most of the commission and storage fees;
- The system effectively uses the capabilities of the FreeTON network such as a tick timer, messaging function, sharding;
- If there is an off-chain part: maximize the use of decentralized resources to ensure system independence;
- Modularity and documentation of the code, ease of support, openness of developers to changes and additions.

Hard criteria

- The ability to create new exchange pairs through the de-bot interface. Optional Web and mobile interfaces;
- Ability to view information about pools, exchange rate, pool composition;
- Instant exchange support for AMM supporting instant exchange, for Orderbook cross-margin and / or complex FOK IOC and / or Limit order;
- Support for de-bot interface and / or web and mobile interface, at least for testing purposes.

Soft criteria

- Using one of the solutions implemented in phase 1;
- Mostly everyday English to make technical documentation easier to understand;
- Additional interfaces, de-bots, mobile apps, SDK and public APIs will be a plus.

Artifacts

- Source code of smart contracts in the public repository;
- Source code of DeBots in the public repository;
- Smart contracts deployed on the testnet;
- Description of scenarios for calling smart contracts methods for main use cases;
- DeBot interface for existing DEX pairs, statistics, current exchange rate, etc. with optional web/mobile interface;
- Link to github/gitlab with executable code and thorough README on how to deploy and run;
- Open-source license.

Rewards

Place	Reward, TON
1	160 000
2	120 000
3	80 000
4	40 000
5	20 000

Procedural remarks to jurors

As per Procedural remarks on contests.

Jury rewards

As per Procedural remarks on contests.

Governance rewards

As per Procedural remarks on contests.

Procedural reminders to all contestants

As per Procedural remarks on contests.