SPYWOLF

Security Audit Report

Audit prepared for

Chain Factory

Completed on

May 5, 2024

KEY RESULTS

Cannot mint new tokens	Passed
Cannot pause trading (honeypot)	Passed
Cannot blacklist an address	Passed
Cannot raise taxes over 25%?	Passed
No proxy contract detected	Passed
Not required to enable trading	Passed
No hidden ownership	Passed
Cannot change the router	Passed
No cooldown feature found	Passed
Bot protection delay is lower than 5 blocks	Passed
Cannot set max tx amount below 0.05% of total supply	Passed
The contract cannot be self-destructed by owner	Passed

For a more detailed and thorough examination of the heightened risks, refer to the subsequent parts of the report.

N/A = Not applicable for this type of contract

*Only new deposits/reinvestments can be paused

OVERVIEW

This goal of this report is to review the main aspects of the project to help investors make an informative decision during their research process.

You will find a a summarized review of the following key points:

- ✔ Contract's source code
- ✔ Owners' wallets
- ✔ Tokenomics
- ✔ Team transparency and goals
- ✔ Website's age, code, security and UX
- ✔ Whitepaper and roadmap
- ✔ Social media & online presence

The results of this audit are purely based on the team’s evaluation and does not guarantee nor reflect the projects outcome and goal

- SPYWOLF Team -

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CHAIN FACTORY

PROJECT DESCRIPTION

"With ChainFactory, users can choose from a variety of customizable templates and features, making it simple to create contracts tailored to your specific needs. It is designed to be user-friendly and intuitive, guiding users through the entire process step-by-step, providing a centralized platform to create, deploy, and manage your Smart-Contracts with ease."

Release Date: TBD

Category: Ecosystem

MAIN TOKEN CONTRACT

Token Name
My Token

Symbol
MyToken

Contract Address
0x3CA821527c19e0b942bbCFC70e8F3Bb4ac477cE9

Network
Ethereum Sepolia TESTNET

Language
Solidity

Deployment Date
Apr 15, 2024

Contract Type
Token with taxes

Total Supply
1,000,000

Status
Launched

TAXES

Buy Tax
5%

Sell Tax
5%

*Taxes can be changed in future

Our Contract Review Process

The contract review process pays special attention to the following:

- Testing the smart contracts against both common and uncommon vulnerabilities
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Ensuring contract logic meets the specifications and intentions of the client.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- Thorough line-by-line manual review of the entire codebase by industry experts.

Blockchain security tools used:

- OpenZeppelin
- Mythril
- Solidity Compiler
- Hardhat

TOKEN TRANSFERS STATS

Transfer Count	TESTNET
Uniq Senders	TESTNET
Uniq Receivers	TESTNET
Total Amount	TESTNET
Median Transfer Amount	TESTNET
Average Transfer Amount	TESTNET
First transfer date	TESTNET
Last transfer date	TESTNET
Days token transferred	TESTNET

SMART CONTRACT STATS

Calls Count	TESTNET
External calls	TESTNET
Internal calls	TESTNET
Transactions count	TESTNET
Uniq Callers	TESTNET
Days contract called	TESTNET
Last transaction time	TESTNET
Created	TESTNET
Create TX	TESTNET
Creator	TESTNET

FEATURED WALLETS

Owner address	0x858469713690EB6389A678d7229B8D4811111090
Marketing fee receivers	0x858469713690EB6389A678d7229B8D4811111090
LP address	TESTNET

TOP 3 UNLOCKED WALLETS

N/A	TESTNET
N/A	TESTNET
N/A	TESTNET

VULNERABILITY ANALYSIS

ID	Title	
SWC-100	Function Default Visibility	**Passed**
SWC-101	Integer Overflow and Underflow	**Passed**
SWC-102	Outdated Compiler Version	**Passed**
SWC-103	Floating Pragma	**Passed**
SWC-104	Unchecked Call Return Value	**Passed**
SWC-105	Unprotected Ether Withdrawal	**Passed**
SWC-106	Unprotected SELFDESTRUCT Instruction	**Passed**
SWC-107	Reentrancy	**Passed**
SWC-108	State Variable Default Visibility	**Passed**
SWC-109	Uninitialized Storage Pointer	**Passed**
SWC-110	Assert Violation	**Passed**
SWC-111	Use of Deprecated Solidity Functions	**Passed**
SWC-112	Delegatecall to Untrusted Callee	**Passed**
SWC-113	DoS with Failed Call	**Passed**
SWC-114	Transaction Order Dependence	**Passed**
SWC-115	Authorization through tx.origin	**Passed**
SWC-116	Block values as a proxy for time	**Passed**
SWC-117	Signature Malleability	**Passed**
SWC-118	Incorrect Constructor Name	**Passed**

VULNERABILITY ANALYSIS

ID	Title	
SWC-119	Shadowing State Variables	Passed
SWC-120	Weak Sources of Randomness from Chain Attributes	Passed
SWC-121	Missing Protection against Signature Replay Attacks	Passed
SWC-122	Lack of Proper Signature Verification	Passed
SWC-123	Requirement Violation	Passed
SWC-124	Write to Arbitrary Storage Location	Passed
SWC-125	Incorrect Inheritance Order	Passed
SWC-126	Insufficient Gas Griefing	Passed
SWC-127	Arbitrary Jump with Function Type Variable	Passed
SWC-128	DoS With Block Gas Limit	Passed
SWC-129	Typographical Error	Passed
SWC-130	Right-To-Left-Override control character (U+202E)	Passed
SWC-131	Presence of unused variables	Passed
SWC-132	Unexpected Ether balance	Passed
SWC-133	Hash Collisions With Multiple Variable Length Arguments	Passed
SWC-134	Message call with hardcoded gas amount	Passed
SWC-135	Code With No Effects	Passed
SWC-136	Unencrypted Private Data On-Chain	Passed

MANUAL
CODE REVIEW

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time.

We categorize these vulnerabilities by 4 different threat levels.

THREAT LEVELS

High Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Medium Risk

Issues on this level are critical to the smart contract's performance, functionality and should be fixed before moving to a live environment.

Low Risk

Issues on this level are minor details and warning that can remain unfixed.

Informational

Information level is to offer suggestions for improvement of efficacy or security for features with a risk free factor.

FOUND THREATS

⚠ High Risk

No high risk-level threats found in this contract.

⚠ Medium Risk

No medium risk-level threats found in this contract.

⚠ Low Risk

No low risk-level threats found in this contract.

FOUND THREATS

Informational

Owner can set buy/sell/transfer taxes up to 25%, until the functionality is renounced. Combined buy+sell = 25%.
Owner can change taxes receiving wallets for up to 5 receivers.
When taxes are above 0, there will be certain amount of tokens that will be deducted from every transaction that users make. Deducted amount will be as much as the taxes % from total amount that user had bought, sold and/or transferred.

```
function renounceTaxable() external onlyOwner {
    _renounced.Taxable = true;

    emit RenouncedTaxable();
}

function setTaxBeneficiary(uint8 slot, address account, uint24[3] memory percent) external onlyOwner {
    require(!_renounced.Taxable);
    require(slot >= 1 && slot <= 5, "Reserved");

    _setTaxBeneficiary(slot, account, percent);
}


function _setTaxBeneficiary(uint8 slot, address account, uint24[3] memory percent) internal {
    require(slot <= 5);
    require(account != address(this) && account != address(0xdEaD) && account != address(0));

    taxBeneficiary storage taxBeneficiarySlot = _taxBeneficiary[slot];

    unchecked {
      _totalTxTax += percent[0] - taxBeneficiarySlot.percent[0];
      _totalBuyTax += percent[1] - taxBeneficiarySlot.percent[1];
      _totalSellTax += percent[2] - taxBeneficiarySlot.percent[2];

      require(_totalTxTax <= 25 * _denominator &&
      ((_totalBuyTax <= 25 * _denominator && _totalSellTax <= 25 * _denominator) &&
      (_totalBuyTax + _totalSellTax <= 25 * _denominator)), "High Tax");

      taxBeneficiarySlot.account = account;
      taxBeneficiarySlot.percent = percent;
    }

    if (!taxBeneficiarySlot.exists) { taxBeneficiarySlot.exists = true; }

    emit SetTaxBeneficiary(slot, account, percent);
}
```

FOUND THREATS

Informational

Owner can change contract's auto swap settings.

```
function enableAutoSwap(bool status) external onlyOwner {
    require(!_renounced.DEXRouterV2);
    require(!status, "Already enabled");

    _autoSwapEnabled = status;
}

function setAutoSwapPercent(uint24 min, uint24 max) external onlyOwner {
    require(!_renounced.DEXRouterV2);
    require(min >= 1 && min <= 1000, "0.001% to 1%");
    require(max >= min && max <= 1000, "0.001% to 1%");

    _setAutoSwapPercent(min, max);
}

function _setAutoSwapPercent(uint24 min, uint24 max) internal {
    _minAutoSwapPercent = min;
    _maxAutoSwapPercent = max;
    _minAutoSwapAmount = _percentage(_totalSupply, uint256(min));
    _maxAutoSwapAmount = _percentage(_totalSupply, uint256(max));
}

function setAutoAddLiquidityPercent(uint24 min, uint24 max) external onlyOwner {
    require(!_renounced.DEXRouterV2);
    require(min >= 10 && min <= 100 * _denominator, "0.01% to 100%");
    require(max >= min && max <= 100 * _denominator, "0.01% to 100%");

    _setAutoAddLiquidityPercent(min, max);
}

function _setAutoAddLiquidityPercent(uint24 min, uint24 max) internal {
    _minAutoAddLiquidityPercent = min;
    _maxAutoAddLiquidityPercent = max;
    _minAutoAddLiquidityAmount = _percentage(_totalSupply, uint256(min));
    _maxAutoAddLiquidityAmount = _percentage(_totalSupply, uint256(max));
}
```

FOUND THREATS

Informational

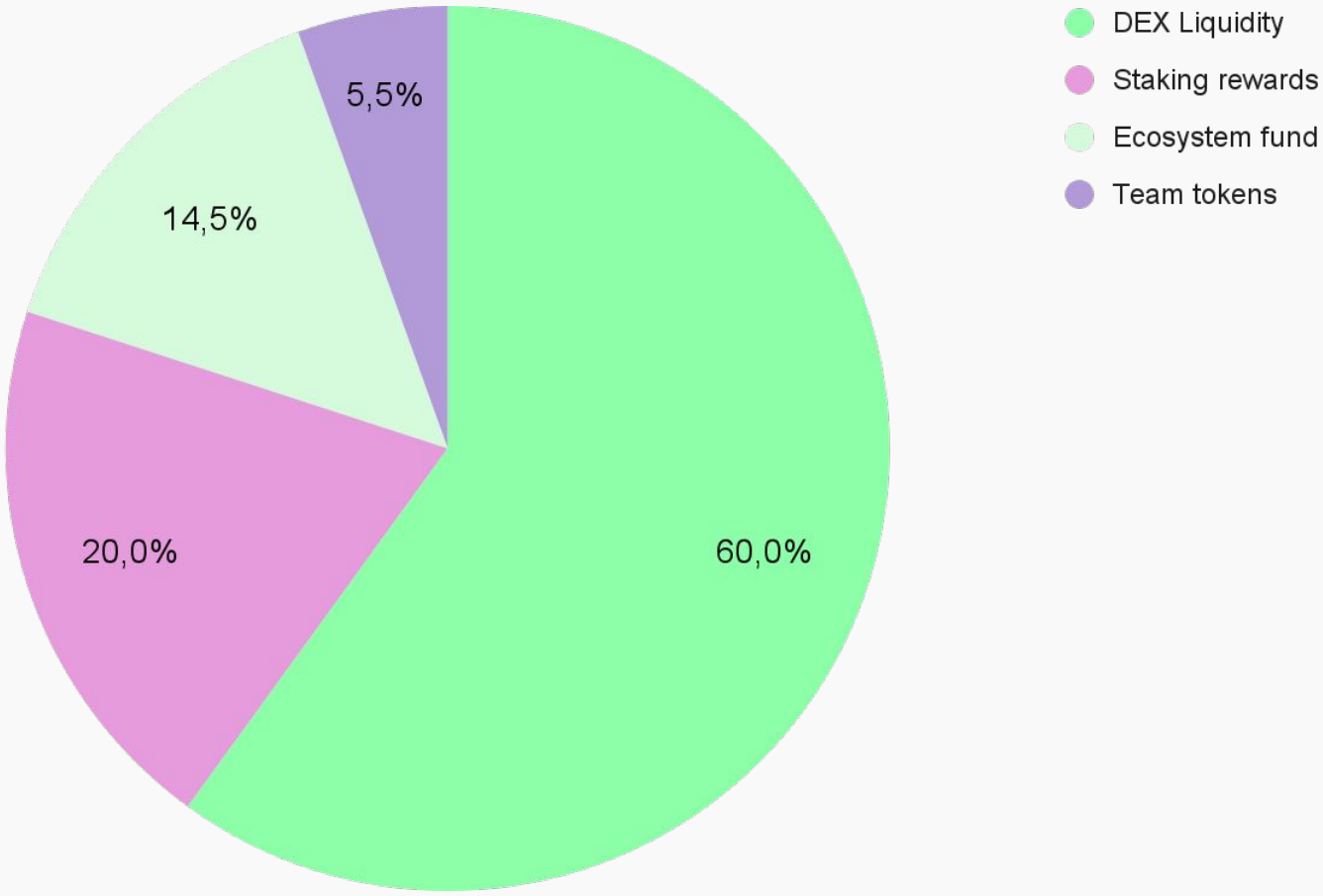
Owner can enable trading once.

```
function enableTrading() external onlyOwner {
    require(!_renounced.DEXRouterV2);
    require(_tradingEnabled == 0, "Already enabled");

    _tradingEnabled = _timestamp();

    emit TradingEnabled();
}
```

TOKENOMICS

The following tokenomics are based on the project's whitepaper and/or website:

- 60% - DEX Liquidity
- 20% - Staking rewards
- 14.5% - Ecosystem fund
- 5.5% - Team tokens



WEBSITE

Website URL
https://chainfactory.app/

Domain Registry
https://domains.google.com

Domain Expiration
2024-05-28

Technical SEO Test
Passed

Security Test
Passed. SSL certificate present

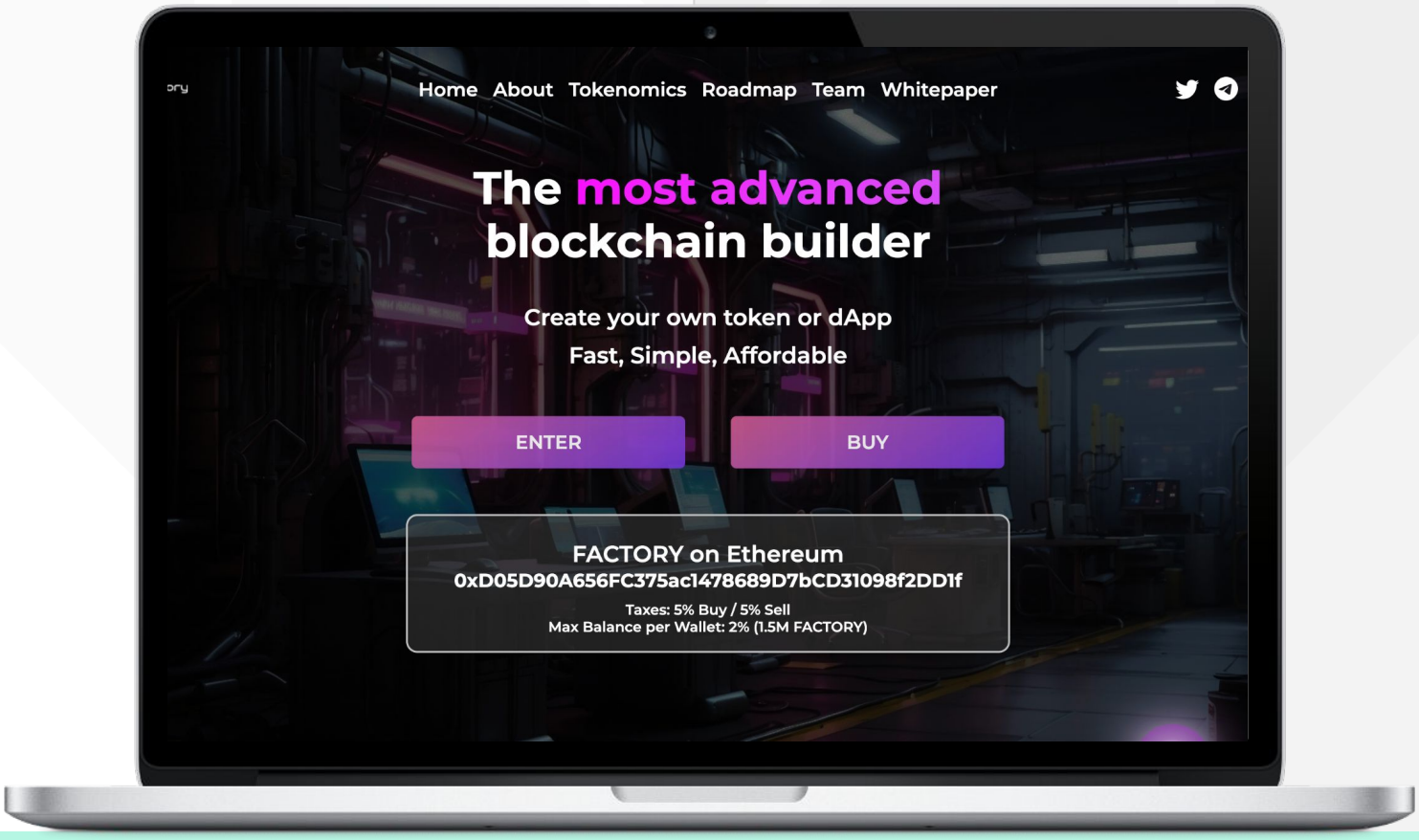
Design
Simple and intuitive web design with appropriate color scheme and graphics.

Content
The information helps new investors understand what the product does right away. No grammar mistakes found.

Whitepaper
Well written, explanatory.

Roadmap
Yes, goals set without time frames.

Mobile-friendly?
Yes



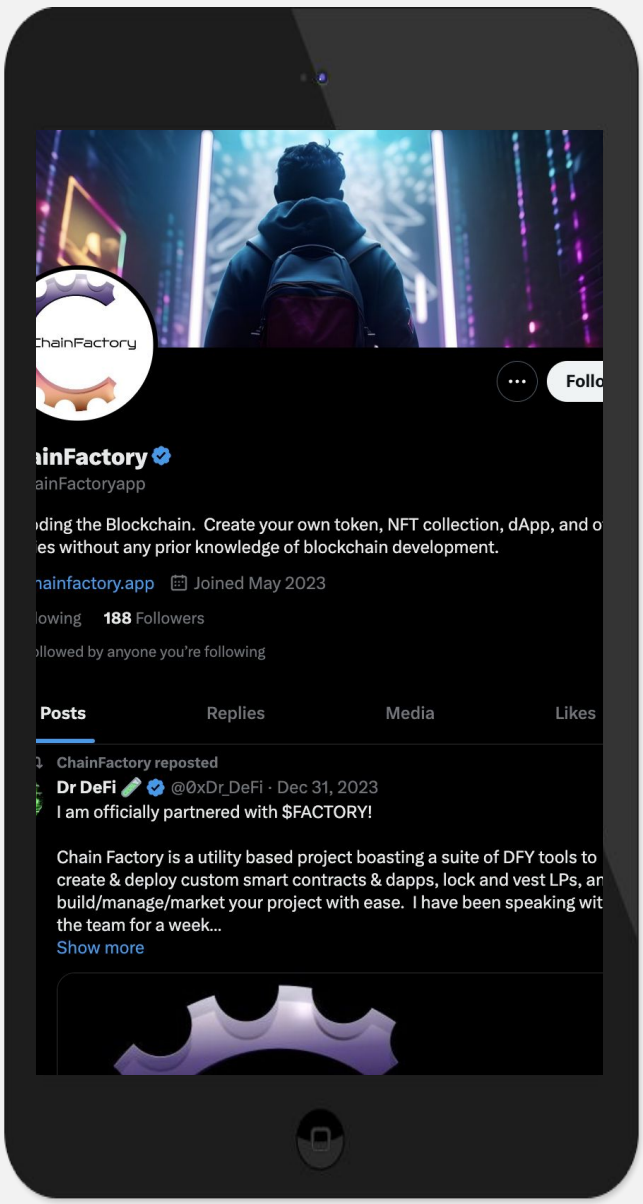
chainfactory.app

SOCIAL MEDIA

& ONLINE PRESENCE

ANALYSIS

Project's social media pages are active.



Twitter's X

@ChainFactoryApp

- 1 049 followers
- Posts frequently
- Active

Discord

https://discord.com/invite/4eDJf6UwP4

- 147 members
- Active members
- Active mods

Telegram

@ChainFactoryVerify

- 1 317 members
- Active members
- Active mods

Medium

- Not available

SPYWOLF

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Disclaimer

This report shows findings based on our limited project analysis, following good industry practice from the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, overall social media and website presence and team transparency details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report.
While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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No applications were reviewed for security. No product code has been reviewed.