

CFG NINJA AUGUSTA Security Assessment

FooFi Token

November 19, 2022





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Assessment Summary

This report has been prepared for FooFi Token on the Binance network. CFGNINJA provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.
- 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.





Technical Findings Summary

Classification of Risk

Severity	Description
Critical	Risks are those that impact the safe functioning of a platform and must be addressed before launch. Users should not invest in any project with outstanding critical risks.
Major	Risks can include centralization issues and logical errors. Under specific circumstances, these major risks can lead to loss of funds and/or control of the project.
Medium	Risks may not pose a direct risk to users' funds, but they can affect the overall functioning of a platform
Minor	Risks can be any of the above but on a smaller scale. They generally do not compromise the overall integrity of the Project, but they may be less efficient than other solutions.
Informational	Errors are often recommended to improve the code's style or certain operations to fall within industry best practices. They usually do not affect the overall functioning of the code.

Findings

Severity	Found	Pending	Resolved
Critical	0	0	0
Major	0	0	0
Medium	0	0	0
Minor	0	0	0
Informational	0	0	0
Total	0	0	0





Project Overview

Token Summary

Parameter	Result
Address	0x30d19d34E1024194133CEaB53e6EDF5268091a3C
Name	FooFi
Token Tracker	FooFi (FOOFI)
Decimals	18
Supply	100,000,000
Platform	Binance
compiler	v0.8.17+commit.8df45f5f
Contract Name	FOOFI
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://bscscan.com/ address/0x30d19d34E1024194133CEaB53e6EDF5268091a3C
Payment Tx	0xd99dcdbc7d7d56418079c16e5256212dd64645131bfc21542a a2690543a9d72d





Project Overview

Risk Analysis Summary

Parameter	Result
Buy Tax	0%
Sale Tax	3%
Is honeypot?	Clean
Can edit tax?	No
Is anti whale?	No
Is blacklisted?	No
Is whitelisted?	No
Holders	Clean
Security Score	95/100
Confidence Level	Low

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.





Main Contract Assessed Contract Name

Name	Contract	Live
FooFi	0x30d19d34E1024194133CEaB53e6EDF5268091a3C	Yes

TestNet Contract Assessed Contract Name

Name	Contract	Live
FooFi	0x340C16168574c5A50D0Ad1478B40BDef0d97008e	Yes

Solidity Code Provided

SolID	File Sha-1	FileName
FOOFI	7901316851422c76db9e1b9ca5b7095b9392b113	fofi.sol





Mint Check

The project owners of FooFi do not have a mint function in the contract, owner cannot mint tokens after initial deploy.

The Project has a Total Supply of 100,000,000 and cannot mint any more than the Max Supply.

Mint Notes:

Auditor Notes:





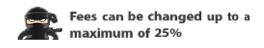
Fees Check

The project owners of FooFi do not have the ability to set fees higher than 25%.

The team May have fees defined; however, they can't set those fees higher than 25% or may not be able to configure the same.

Tax Fee Notes:

Auditor Notes: The contract currently has 0% buy and 3% sale taxes, and cannot be set higher than 5%.









Blacklist Check

The project owners of FooFi do not have a blacklist function their contract.

The Project allow owners to transfer their tokens without any restrictions.

Token owner cannot blacklist the contract: Malicious or compromised owners can trap contracts relying on tokens with a blacklist.

Blacklist Notes:

Auditor Notes:

Project Owner Notes: undefined







MaxTx Check

The Project Owners of FooFi cannot set max tx amount

The Team allows any investors to swap, transfer or sell their total amount if needed.

MaxTX Notes:

Auditor Notes:

Project Owner Notes:

Project Has No MaxTX







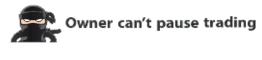
Pause Trade Check

The Project Owners of FooFi don't have the ability to stop or pause trading.

The Team has done a great job to avoid stop trading, and investors has the ability to trade at any given time without any problems

Pause Trade Notes:

Auditor Notes:









Contract Ownership

The contract ownership of FooFi is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

The current owner is the address which can be viewed: <u>HERE</u>

The owner wallet has the power to call the functions displayed on the privileged functions chart below, if the owner's wallet is compromised, they could exploit these privileges.

We recommend the team renounce ownership at the right time, if possible, or gradually migrate to a timelock with governing functionalities regarding transparency and safety considerations.

We recommend the team use a Multisignature Wallet if the contract is not going to be renounced; this will give the team more control over the contract.





Liquidity Ownership

The token does not have liquidity at the moment of the audit, block 23202502

If liquidity is unlocked, then the token developers can do what is infamously known as 'rugpull'. Once investors start buying token from the exchange, the liquidity pool will accumulate more and more coins of established value (e.g., ETH or BNB or Tether). This is because investors are basically sending these tokens of value to the exchange, to get the new token. Developers can withdraw this liquidity from the exchange, cash in all the value and run off with it. Liquidity is locked by renouncing the ownership of liquidity pool (LP) tokens for a fixed time period, by sending them to a time-lock smart contract. Without ownership of LP tokens, developers cannot get liquidity pool funds back. This provides confidence to the investors that the token developers will not run away with the liquidity money. It is now a standard practice that all token developers follow, and this is what really differentiates a scam coin from a real one.

Read More





KYC Information

The Project Owners of FooFi is not KYC.

KYC Information Notes:

Auditor Notes: KYC is Pending as customer dont have passports from China.







Smart Contract Vulnerability Checks

ID	Severity	Name	File	location
SWC-100	Pass	Function Default Visibility	fofi.sol	L: 0 C: 0
SWC-101	Pass	Integer Overflow and Underflow.	fofi.sol	L: 0 C: 0
SWC-102	Pass	Outdated Compiler Version file.	fofi.sol	L: 0 C: 0
SWC-103	Pass	A floating pragma is set.	fofi.sol	L: 0 C: 0
SWC-104	Pass	Unchecked Call Return Value.	fofi.sol	L: 0 C: 0
SWC-105	Pass	Unprotected Ether Withdrawal.	fofi.sol	L: 0 C: 0
SWC-106	Pass	Unprotected SELFDESTRUCT Instruction	fofi.sol	L: 0 C: 0
SWC-107	Pass	Read of persistent state following external call.	fofi.sol	L: 0 C: 0
SWC-108	Pass	State variable visibility is not set	fofi.sol	L: 0 C: 0
SWC-109	Pass	Uninitialized Storage Pointer.	fofi.sol	L: 0 C: 0
SWC-110	Pass	Assert Violation.	fofi.sol	L: 0 C: 0
SWC-111	Pass	Use of Deprecated Solidity Functions.	fofi.sol	L: 0 C: 0
SWC-112	Pass	Delegate Call to Untrusted Callee	fofi.sol	L: 0 C: 0





ID	Severity	Name	File	location
SWC-113	Pass	Multiple calls are executed in the same transaction.	fofi.sol	L: 0 C: 0
SWC-114	Pass	Transaction Order Dependence.	fofi.sol	L: 0 C: 0
SWC-115	Pass	Authorization through tx.origin.	fofi.sol	L: 0 C: 0
SWC-116	Pass	A control flow decision is made based on The block.timestamp environment variable.	fofi.sol	L: 0 C: 0
SWC-117	Pass	Signature Malleability.	fofi.sol	L: 0 C: 0
SWC-118	Pass	Incorrect Constructor Name.	fofi.sol	L: 0 C: 0
SWC-119	Pass	Shadowing State Variables.	fofi.sol	L: 0 C: 0
SWC-120	Pass	Potential use of block.number as source of randonmness.	fofi.sol	L: 0 C: 0
SWC-121	Pass	Missing Protection against Signature Replay Attacks.	fofi.sol	L: 0 C: 0
SWC-122	Pass	Lack of Proper Signature Verification.	fofi.sol	L: 0 C: 0
SWC-123	Pass	Requirement Violation.	fofi.sol	L: 0 C: 0
SWC-124	Pass	Write to Arbitrary Storage Location.	fofi.sol	L: 0 C: 0
SWC-125	Pass	Incorrect Inheritance Order.	fofi.sol	L: 0 C: 0
SWC-126	Pass	Insufficient Gas Griefing.	fofi.sol	L: 0 C: 0
SWC-127	Pass	Arbitrary Jump with Function Type Variable.	fofi.sol	L: 0 C: 0





ID_	Severity	Name	File	location
SWC-128	Pass	DoS With Block Gas Limit.	fofi.sol	L: 0 C: 0
SWC-129	Pass	Typographical Error.	fofi.sol	L: 0 C: 0
SWC-130	Pass	Right-To-Left-Override control character (U +202E).	fofi.sol	L: 0 C: 0
SWC-131	Pass	Presence of unused variables.	fofi.sol	L: 0 C: 0
SWC-132	Pass	Unexpected Ether balance.	fofi.sol	L: 0 C: 0
SWC-133	Pass	Hash Collisions with Multiple Variable Length Arguments.	fofi.sol	L: 0 C: 0
SWC-134	Pass	Message call with hardcoded gas amount.	fofi.sol	L: 0 C: 0
SWC-135	Pass	Code With No Effects (Irrelevant/Dead Code).	fofi.sol	L: 0 C: 0
SWC-136	Pass	Unencrypted Private Data On-Chain.	fofi.sol	L: 0 C: 0

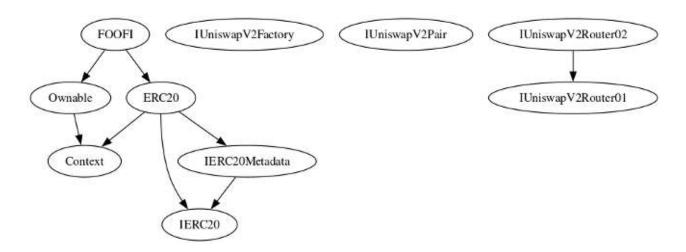
We scan the contract for additional security issues using MYTHX and industry-standard security scanning tools.





Inheritance

The contract for FooFi has the following inheritance structure.





Privileged Functions (onlyOwner)

Function Name	Parameters	Visibility
renounceOwnership		public
transferOwnership	newOwner (address)	public
claimStuckTokens	token (address)	external
excludeFromFees	account (address), excluded (bool)	external
changeMarketingWall et	_marketingWallet (address)	external
setSwapTokensAtAm ount	newAmount (uint256)	external





Assessment Results

- This contract is done by a SAFU Developer Roman Candles and peer-reviewed by Bladepool.
- Contract have 0% buy and 3\$ Sale Tax and cannot be changed more than 5%.
- Security Vulnerabilities have not been found and no major issues during the advance check and testing of the contract.
- No high-risk Exploits/Vulnerabilities Were Found in the Source Code.

Audit Passed







Smart Contract Advance Checks

1				
ID	Severity	Name	Result	Status
FOOFI-01	Minor	Potential Sandwich Attacks.	Pass	Not Found
FOOFI-02	Informational	Function Visibility Optimization	Pass	Not Found
FOOFI-03	Minor	Lack of Input Validation.	Pass	Not Found
FOOFI-04	Major	Centralized Risk In addLiquidity.	Pass	Not Found
FOOFI-05	Major	Missing Event Emission.	Pass	Not Found
FOOFI-06	Minor	Conformance with Solidity Naming Conventions.	Pass	Not Found
FOOFI-07	Minor	State Variables could be Declared Constant.	Pass	Not Found
FOOFI-08	Major	Dead Code Elimination.	Pass	Not Found
FOOFI-09	Major	Third Party Dependencies.	Pass	Not Found
FOOFI-10	Major	Initial Token Distribution.	Pass	Not Found
FOOFI-11	Informational	excludeFromDividends can be called and is missing an Include Function to revert action.	Pass	Not Found
FOOFI-12	Major	Centralization Risks In The X Role	Pass	Not Found
FOOFI-13	Informational	Extra Gas Cost For User	Pass	Not Found

During our assessment review, we manually check against the following test cases, this help us identify potential missing items from any automated tools. Is an additional safety measure to ensure the contract is safe and follow industry standards.





Social Media Checks

Social Media	URL	Result
Twitter	https://twitter.com/FooFiBSC	Pass
Other		fail
Website	https://foofi.io/	Pass
Telegram	https://t.me/FooFiBSC	Pass

We recommend to have 3 or more social media sources including a completed working websites.

Social Media Information Notes:

Auditor Notes: undefined







Appendix

Finding Categories

Centralization / Privilege

Centralization / Privilege findings refer to either feature logic or implementation of components that actagainst the nature of decentralization, such as explicit ownership or specialized access roles incombination with a mechanism to relocate funds.

Gas Optimization

Gas Optimization findings do not affect the functionality of the code but generate different, more optimalEVM opcodes resulting in a reduction on the total gas cost of a transaction.

Logical Issue

Logical Issue findings detail a fault in the logic of the linked code, such as an incorrect notion on howblock.timestamp works.

Control Flow

Control Flow findings concern the access control imposed on functions, such as owneronly functionsbeing invoke-able by anyone under certain circumstances.

Volatile Code

Volatile Code findings refer to segments of code that behave unexpectedly on certain edge cases that mayresult in a vulnerability.

Coding Style

Coding Style findings usually do not affect the generated byte-code but rather comment on how to makethe codebase more legible and, as a result, easily maintainable.

Inconsistency

Inconsistency findings refer to functions that should seemingly behave similarly yet contain different code, such as a constructor assignment imposing different require statements on the input variables than a setterfunction.

Coding Best Practices

ERC 20 Conding Standards are a set of rules that each developer should follow to ensure the code meet a set of creterias and is readable by all the developers.





Disclaimer

CFGNINJA has conducted an independent security assessment to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the reviewed code for the scope of this assessment. This report does not constitute agreement, acceptance, or advocation for the Project, and users relying on this report should not consider this as having any merit for financial advice in any shape, form, or nature. The contracts audited do not account for any economic developments that the Project in question may pursue, and the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude, and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are entirely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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