



CFG NINJA AUDITS

Security Assessment

FOMO Labs Token

August 8, 2023

Audit Status: Pass

Audit Edition: Advance














POWERED BY
BLADE POOL

Risk Analysis

















Classifications of Manual Risk Results

Classification	Description
 Critical	Danger or Potential Problems.
 Major	Be Careful or Fail test.
 Minor	Pass, Not-Detected or Safe Item.
 Informational	Function Detected

Manual Code Review Risk Results

Contract Priviledge	Description
 Buy Tax	6
 Sale Tax	6
 Cannot Buy	Pass
 Cannot Sale	Pass
 Max Tax	6
 Modify Tax	Detected
 Fee Check	Pass
 Is Honeypot?	Not detected
 Trading Cooldown	Not Detected
 Can Pause Trade?	Pass
 Pause Transfer?	Not-Detected



Contract Priviledge	Description
 Max Tx?	Fail
 Is Anti Whale?	Not Detected
 Is Anti Bot?	Not Detected
 Is Blacklist?	Detected
 Blacklist Check	Fail
 is Whitelist?	Not Detected
 Can Mint?	Pass
 Is Proxy?	Not Detected
 Can Take Ownership?	Not detected
 Hidden Owner?	Not detected
 Owner	0xF47467c6328CC1f0F246F5B9b7e1959d9793c43A
 Self Destruct?	Not Detected
 Other?	Not detected
 Other?	Not detected
 Holders	2
 Auditor Confidence	High

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.



Project Overview

Token Summary

Parameter	Result
Address	0x41EB4a8b67029E0aE0A0aE0D2d1e4c6372993b96
Name	FOMO Labs
Token Tracker	FOMO Labs (FOMO)
Decimals	9
Supply	10,000,000
Platform	Ethereum
compiler	v0.8.17+commit.8df45f5f
Contract Name	FomoLabs
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://etherscan.io/address/0x41EB4a8b67029E0aE0A0aE0D2d1e4c6372993b96#code
Payment Tx	0x4caf6ecfce7c566c9ca2672987205e909f32f76ad6890d20fc9ba312ef5eec87



Main Contract Assessed Contract Name

Name	Contract	Live
FOMO Labs	0x41EB4a8b67029E0aE0A0aE0D2d1e4c6372993b96	Yes

TestNet Contract Assessed Contract Name

Name	Contract	Live
FOMO Labs	0xAFCB60590Dc48D16715AAccEd192e6903675E451	Yes

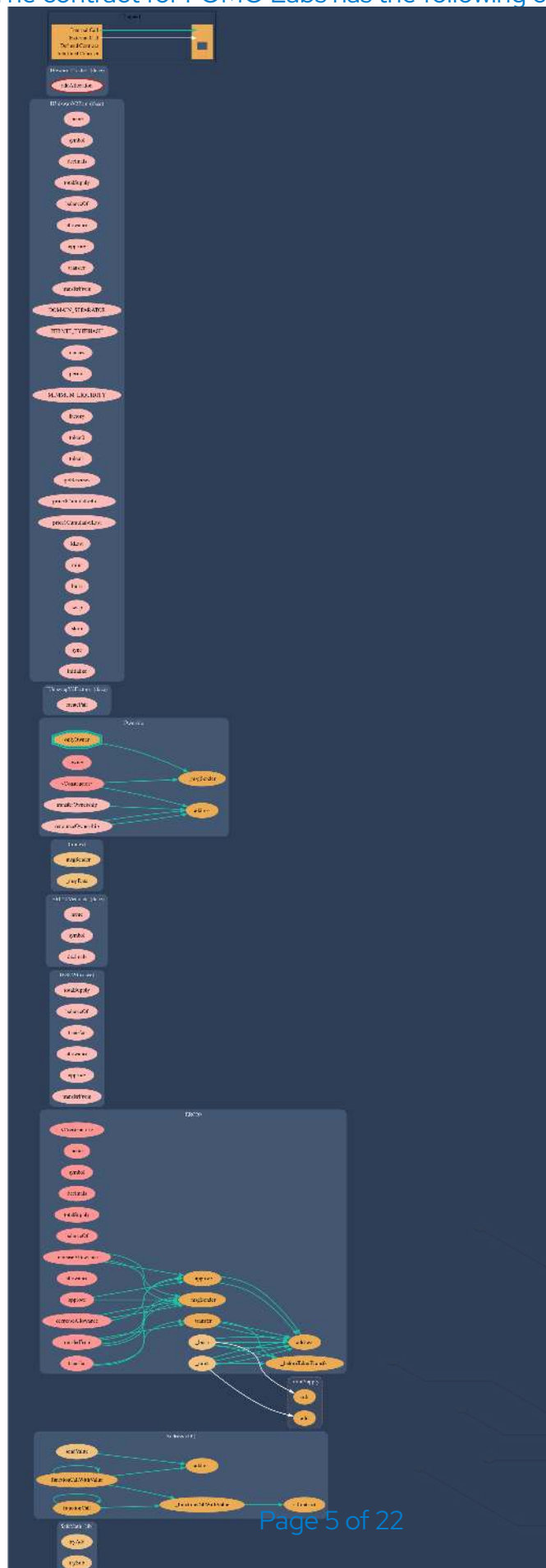
Solidity Code Provided

SolID	File Sha-1	FileName
FomoLabs	490f74246b3f7b48d3ca1cf8df3d1aa01a1324c1	FomoLabs.sol
FomoLabs	b5353377683f51c20906d31f64b4f927048126ec	SafeMath.sol
FomoLabs	893ad04fd23333341116f1fe2c451f8c2cd9f13c	Address.sol
FomoLabs	5346cbe4cf292508696a533f4c16effbc6d71b99	RewardsToken.sol



Call Graph

The contract for FOMO Labs has the following call graph structure.



Smart Contract Vulnerability Checks

The Smart Contract Weakness Classification Registry (SWC Registry) is an implementation of the weakness classification scheme proposed in EIP-1470. It is loosely aligned to the terminologies and structure used in the Common Weakness Enumeration (CWE) while overlaying a wide range of weakness variants that are specific to smart contracts.

ID	Severity	Name	File	location
SWC-100	Pass	Function Default Visibility	FomoLabs.sol	L: 0 C: 0
SWC-101	Pass	Integer Overflow and Underflow.	FomoLabs.sol	L: 0 C: 0
SWC-102	Pass	Outdated Compiler Version file.	FomoLabs.sol	L: 0 C: 0
SWC-103	Low	A floating pragma is set.	FomoLabs.sol	L: 13 C: 19
SWC-104	Pass	Unchecked Call Return Value.	FomoLabs.sol	L: 0 C: 0
SWC-105	Pass	Unprotected Ether Withdrawal.	FomoLabs.sol	L: 0 C: 0
SWC-106	Pass	Unprotected SELFDESTRUCT Instruction	FomoLabs.sol	L: 0 C: 0
SWC-107	Pass	Read of persistent state following external call.	FomoLabs.sol	L: 0 C: 0
SWC-108	Low	State variable visibility is not set..	FomoLabs.sol	L: 25 C: 1700
SWC-109	Pass	Uninitialized Storage Pointer.	FomoLabs.sol	L: 0 C: 0
SWC-110	Pass	Assert Violation.	FomoLabs.sol	L: 0 C: 0



ID	Severity	Name	File	location
SWC-111	Pass	Use of Deprecated Solidity Functions.	FomoLabs.sol	L: 0 C: 0
SWC-112	Pass	Delegate Call to Untrusted Callee.	FomoLabs.sol	L: 0 C: 0
SWC-113	Pass	Multiple calls are executed in the same transaction.	FomoLabs.sol	L: 0 C: 0
SWC-114	Pass	Transaction Order Dependence.	FomoLabs.sol	L: 0 C: 0
SWC-115	Pass	Authorization through tx.origin.	FomoLabs.sol	L: 0 C: 0
SWC-116	Pass	A control flow decision is made based on The block.timestamp environment variable.	FomoLabs.sol	L: 0 C: 0
SWC-117	Pass	Signature Malleability.	FomoLabs.sol	L: 0 C: 0
SWC-118	Pass	Incorrect Constructor Name.	FomoLabs.sol	L: 0 C: 0
SWC-119	Pass	Shadowing State Variables.	FomoLabs.sol	L: 0 C: 0
SWC-120	Pass	Potential use of block.number as source of randommness.	FomoLabs.sol	L: 0 C: 0
SWC-121	Pass	Missing Protection against Signature Replay Attacks.	FomoLabs.sol	L: 0 C: 0
SWC-122	Pass	Lack of Proper Signature Verification.	FomoLabs.sol	L: 0 C: 0
SWC-123	Pass	Requirement Violation.	FomoLabs.sol	L: 0 C: 0
SWC-124	Pass	Write to Arbitrary Storage Location.	FomoLabs.sol	L: 0 C: 0
SWC-125	Pass	Incorrect Inheritance Order.	FomoLabs.sol	L: 0 C: 0



ID	Severity	Name	File	location
SWC-126	Pass	Insufficient Gas Griefing.	FomoLabs.sol	L: 0 C: 0
SWC-127	Pass	Arbitrary Jump with Function Type Variable.	FomoLabs.sol	L: 0 C: 0
SWC-128	Pass	DoS With Block Gas Limit.	FomoLabs.sol	L: 0 C: 0
SWC-129	Pass	Typographical Error.	FomoLabs.sol	L: 0 C: 0
SWC-130	Pass	Right-To-Left-Override control character (U+202E).	FomoLabs.sol	L: 0 C: 0
SWC-131	Pass	Presence of unused variables.	FomoLabs.sol	L: 0 C: 0
SWC-132	Pass	Unexpected Ether balance.	FomoLabs.sol	L: 0 C: 0
SWC-133	Pass	Hash Collisions with Multiple Variable Length Arguments.	FomoLabs.sol	L: 0 C: 0
SWC-134	Pass	Message call with hardcoded gas amount.	FomoLabs.sol	L: 0 C: 0
SWC-135	Pass	Code With No Effects (Irrelevant/Dead Code).	FomoLabs.sol	L: 0 C: 0
SWC-136	Pass	Unencrypted Private Data On-Chain.	FomoLabs.sol	L: 0 C: 0

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



Smart Contract Vulnerability Details

SWC-103 - Floating Pragma.

CWE-664: Improper Control of a Resource Through its Lifetime.

References:

Description:

Contracts should be deployed with the same compiler version and flags that they have been tested with thoroughly. Locking the pragma helps to ensure that contracts do not accidentally get deployed using, for example, an outdated compiler version that might introduce bugs that affect the contract system negatively.

Remediation:

Lock the pragma version and also consider known bugs (<https://github.com/ethereum/solidity/releases>) for the compiler version that is chosen.

Pragma statements can be allowed to float when a contract is intended for consumption by other developers, as in the case with contracts in a library or EthPM package. Otherwise, the developer would need to manually update the pragma in order to compile locally.

References:

Ethereum Smart Contract Best Practices - Lock pragmas to specific compiler version.



Smart Contract Vulnerability Details

SWC-108 - State Variable Default Visibility

CWE-710: Improper Adherence to Coding Standards

Description:

Labeling the visibility explicitly makes it easier to catch incorrect assumptions about who can access the variable.

Remediation:

Variables can be specified as being public, internal or private. Explicitly define visibility for all state variables.

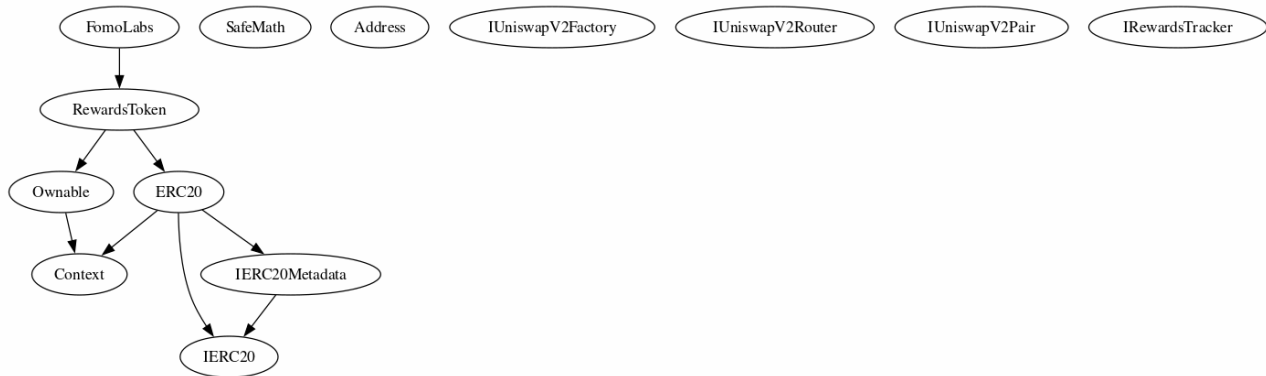
References:

Ethereum Smart Contract Best Practices - Explicitly mark visibility in functions and state variables



Inheritance

The contract for FOMO Labs has the following inheritance structure.



Smart Contract Advance Checks



ID	Severity	Name	Result	Status
FOMO-01	Minor	Potential Sandwich Attacks.	Pass	Not-Found
FOMO-02	Minor	Function Visibility Optimization	Pass	Not-Detected
FOMO-03	Minor	Lack of Input Validation.	Fail	Detected
FOMO-04	Major	Centralized Risk In addLiquidity.	Pass	Not-Detected
FOMO-05	Minor	Missing Event Emission.	Fail	Detected
FOMO-06	Minor	Conformance with Solidity Naming Conventions.	Pass	Not-Detected
FOMO-07	Minor	State Variables could be Declared Constant.	Pass	Not-Found
FOMO-08	Minor	Dead Code Elimination.	Pass	Not-Found
FOMO-09	Major	Third Party Dependencies.	Pass	Not-Found
FOMO-10	Major	Initial Token Distribution.	Pass	Not-Found
FOMO-11	Minor	Multisend is present in code.	Pass	Not-Detected
FOMO-12	Major	Centralization Risks In The X Role	Pass	Not-Found
FOMO-13	Informational	Extra Gas Cost For User..	Pass	Not-Found
FOMO-6	Medium	Unnecessary Use Of SafeMath	Fail	Detected
FOMO-15	Medium	Symbol Length Limitation due to Solidity Naming Standards.	Pass	Not-Found



ID	Severity	Name	Result	Status
FOMO-16	Medium	Invalid collection of Taxes during Transfer.	Pass	Not-Found
FOMO-17	Informational	Conformance to numeric notation best practice.	Pass	Not-Found
FOMO-18	Medium	Stop Transactions by using Enable Trade.	Pass	Not-Detected



FOMO-03 | Lack of Input Validation.

Category	Severity	Location	Status
Volatile Code	 Minor	FomoLabs.sol: 125,14	 Detected

Description

The given input is missing the check for the non-zero address.

The given input is missing the check for the unSetPair is missing required function.

Remediation



We advise the client to add the check for the passed-in values to prevent unexpected errors as below:

```
...  
    require(receiver != address(0), "Receiver is the zero address");  
...  
...  
    require(value X limitation, "Your not able to do this function");  
...
```

We also recommend customer to review the following function that is missing a required validation. unSetPair is missing required function.



FOMO-05 | Missing Event Emission.

Category	Severity	Location	Status
Volatile Code	 Minor	FomoLabs.sol: 125, 14	 Detected

Description



Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes. The linked code does not create an event for the transfer.

Remediation

Emit an event for critical parameter changes. It is recommended emitting events for the sensitive functions that are controlled by centralization roles.



FOMO-14 | Unnecessary Use Of SafeMath

Category	Severity	Location	Status
Logical Issue	 Medium	FomoLabs.sol: 7,9	 Detected

Description

The SafeMath library is used unnecessarily. With Solidity compiler versions 0.8.0 or newer, arithmetic operations

will automatically revert in case of integer overflow or underflow.

library SafeMath {

An implementation of SafeMath library is found.

using SafeMath for uint256;

SafeMath library is used for uint256 type in contract.

Remediation

We advise removing the usage of SafeMath library and using the built-in arithmetic operations provided by the






Solidity programming language

Project Action








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	1	0	0
 Medium	0	0	0
 Minor	2	0	0
 Informational	0	0	0
Total	3	0	0



Social Media Checks

Social Media	URL	Result
Twitter	https://twitter.com/fomolabseth	Pass
Other	https://instagram.com/fomolabs , https://facebook.com/fomolabs , https://www.tiktok.com/@fomolabs	Pass
Website	https://fomoverse.shop	Pass
Telegram	https://t.me/fomolabseth	Pass

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

Social Media Information Notes:

Auditor Notes: undefined

Project Owner Notes:



Assessment Results

Score Results

Review	Score
Overall Score	87/100
Auditor Score	81/100
Review by Section	Score
Manual Scan Score	40/53
SWC Scan Score	35 /37
Advance Check Score	12 /19

The Following Score System Has been Added to this page to help understand the value of the audit, the maximum score is 100, however to attain that value the project must pass and provide all the data needed for the assessment. Our Passing Score has been changed to 80 Points, if a project does not attain 80% is an automatic failure. Read our notes and final assessment below.

Audit Passed



Assessment Results

Important Notes:

- Contract has a blacklist function.

Auditor Score =81
Audit Passed



Appendix

Finding Categories

Centralization / Privilege

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

Gas Optimization

Gas Optimization findings do not affect the functionality of the code but generate different, more optimal EVM 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 how block.timestamp works.

Control Flow

Control Flow findings concern the access control imposed on functions, such as owner-only functions being 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 may result in a vulnerability.

Coding Style

Coding Style findings usually do not affect the generated byte-code but rather comment on how to make the 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 requirements on the input variables than a setter function.

Coding Best Practices

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



Disclaimer

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