

Smart Contract Audit

FOR

ElonFloki

DATED: 30 May 23'



AUDIT SUMMARY

Project name - ElonFloki

Date: 30 May, 2023

Scope of Audit- Audit Ace was consulted to conduct the smart contract audit of the solidity source codes.

Audit Status: Passed

Issues Found

Status	Critical	High	Medium	Low	Suggestion
Open	0	0	0	0	1
Acknowledged	0	0	0	0	0
Resolved	0	0	0	0	0



USED TOOLS

Tools:

1- Manual Review:

A line by line code review has been performed by audit ace team.

2- BSC Test Network: All tests were conducted on the BSC Test network, and each test has a corresponding transaction attached to it. These tests can be found in the "Functional Tests" section of the report.

3-Slither:

The code has undergone static analysis using Slither.

Testnet version:

The tests were performed using the contract deployed on the BSC Testnet, which can be found at the following address:

https://testnet.bscscan.com/token/0x5474D6D553D71 9298CE05972249bB5C528e665cA



Token Information

Token Name: Elon Floki CEO

Token Symbol: ElonFloki

Decimals: 18

Token Supply: 1,000,000,000

Token Address:

0x0329B6b01179aCd09BB683B6EC8d90A9797C0E0A

Checksum:

ff70bb721c780c74a688fdbdfce51395e29c8d9d

Owner:

Oxb2c0e01cf72d93695d60eb7dacce85d2d40f35bf (at time of writing the audit)

Deployer:

0xB2C0e01CF72D93695D60eb7DacCE85d2d40f35BF



TOKEN OVERVIEW

Fees:

Buy Fees: 0-10%

Sell Fees: 0-10%

Transfer Fees: 0-10%

Fees Privilege: Owner

Ownership: 0x655776fC999B3Ece67d6124952FEdB598481A35d

Minting: No mint function

Max Tx Amount/ Max Wallet Amount: No

Blacklist: No

Other Privileges: including in fees

- excluding from fees
- initial distribution of the tokens
- modifying fees
- enabling trades



AUDIT METHODOLOGY

The auditing process will follow a routine as special considerations by Auditace:

- Review of the specifications, sources, and instructions provided to Auditace to make sure the contract logic meets the intentions of the client without exposing the user's funds to risk.
- Manual review of the entire codebase by our experts, which is the process of reading source code line-byline in an attempt to identify potential vulnerabilities.
- Specification comparison is the process of checking whether the code does what the specifications, sources, and instructions provided to Auditace describe.
- Test coverage analysis determines whether the test cases are covering the code and how much code isexercised when we run the test cases.
- Symbolic execution is analysing a program to determine what inputs cause each part of a program to execute.
- Reviewing the codebase to improve maintainability, security, and control based on the established industry and academic practices.



VULNERABILITY CHECKLIST





CLASSIFICATION OF RISK

Severity

- Critical
- High-Risk
- Medium-Risk
- Low-Risk
- Gas Optimization
 /Suggestion

Description

These vulnerabilities could be exploited easily and can lead to asset loss, data loss, asset, or data manipulation. They should be fixed right away.

A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.

A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.

A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.

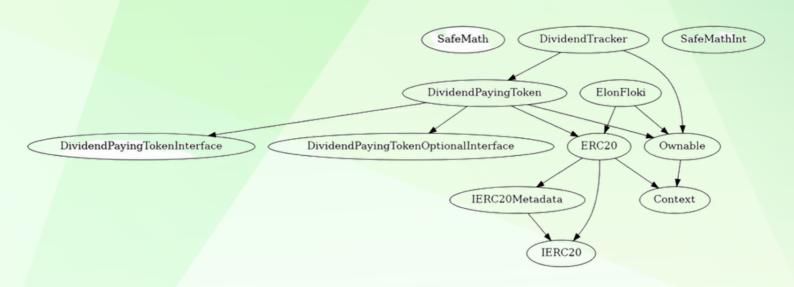
A vulnerability that has an informational character but is not affecting any of the code.

Findings

Severity	Found
♦ Critical	0
♦ High-Risk	0
♦ Medium-Risk	0
♦ Low-Risk	0
Gas Optimization /Suggestions	1



INHERITANCE TREE





POINTS TO NOTE

- Owner is not able to change buy/sell/transfer fees over 10% each
- Owner is not able to blacklist an arbitrary address.
- Owner is not able to disable trades
- Owner is not able to set max buy/sell/transfer/hold amount to 0
- Owner is not able to mint new tokens
- Owner must enable trades manually



```
Contract |
              Type
       **Function Name** | **Visibility** | **Mutability** | **Modifiers** |
| **SafeMath** | Library | |||
 L | tryAdd | Internal 🔒 | | |
 L | trySub | Internal 🔒 | | |
 L | tryMul | Internal | | | |
 └ | tryDiv | Internal 🔒 | ||
 L | tryMod | Internal 🔒 | | |
 L | add | Internal 🔒 | | |
 L | sub | Internal 🔒 | | |
 L | mul | Internal 🔒 | ||
 └ | div | Internal 🔒 | | |
 └ | mod | Internal 🔒 | ||
 L | sub | Internal 🔒 | | |
 | **Context** | Implementation | |||
L | msgSender | Internal 🔒 | | |
L | msgData | Internal 🔒 | | |
| **Ownable** | Implementation | Context |||
 L | owner | Public | | NO | |
 L | checkOwner | Internal | | | |
L | renounceOwnership | Public | | • | onlyOwner |
 L | transferOwnership | Internal 🔒 | 🛑 | |
| **IERC20** | Interface | |||
L | totalSupply | External | | NO | |
 L | balanceOf | External | | NO | |
 L | transfer | External | | | NO | |
L | allowance | External | | NO | |
 └ | approve | External ! | ● |NO! |
L | transferFrom | External | | | NO | |
| **IERC20Metadata** | Interface | IERC20 |||
L | name | External | | NO | |
 L | symbol | External | | NO | |
 L | decimals | External | | NO | |
```



```
**ERC20** | Implementation | Context, IERC20, IERC20Metadata ||
 L | name | Public ! | NO! |
 | decimals | Public | | NO | |
 L | totalSupply | Public | | NO |
 | balanceOf | Public | | NO | |
 L | transfer | Public | | | NO | |
 L | allowance | Public | | NO | |
 | approve | Public | | | | | | | | | | | | |
 transferFrom | Public | | | NO |
 L | increaseAllowance | Public | | | NO | |
 L | decreaseAllowance | Public | | | NO | |
 L | transfer | Internal 🔒 | 🛑 | |
 L | mint | Internal ₁ | ● | |
 L | burn | Internal 🔒 | ● ||
 L | approve | Internal | | | | |
 L | spendAllowance | Internal | | | |
 └ | beforeTokenTransfer | Internal 🔒 | ● | |
 □ afterTokenTransfer | Internal 🔒 | ● | |
| **SafeMathInt** | Library | |||
 L | mul | Internal 🔒 | | |
 L | div | Internal 🔒 | | |
 L | sub | Internal | | | |
 L | add | Internal 🔒 | | |
| L | abs | Internal 🔒 | | |
L | toUint256Safe | Internal 🔒 | | |
| **SafeMathUint** | Library | |||
L | toInt256Safe | Internal 🔒 | | |
| **IterableMapping** | Library | |||
 L | get | Internal 🔒 | | |
L | getIndexOfKey | Internal | | | |
 L | getKeyAtIndex | Internal 🔒 | | |
| L | size | Internal 🔒 | | |
 └ | remove | Internal 🔒 | 🛑 | |
| **IUniswapV2Factory** | Interface | |||
| L | feeTo | External | | NO | |
```



```
| | feeToSetter | External | NO
 | getPair | External | NO | | | | | | | | | | | |
 | allPairs | External | NO | |
 | allPairsLength | External | | NO | |
 | createPair | External | | | | | | | | | | | | |
 | setFeeToSetter | External | | | NO | |
**IUniswapV2Pair** | Interface | |||
 | symbol | External | | NO | |
 decimals | External | | NO |
 L | totalSupply | External | | NO | |
 L | balanceOf | External | | NO | |
 L | allowance | External | | NO |
 L | approve | External | | NO | |
 L | transfer | External | | | NO | |
 L | transferFrom | External | | | NO | |
 L | DOMAIN SEPARATOR | External | | | NO | |
 L | PERMIT_TYPEHASH | External | | | NO | |
 L | nonces | External | | NO | |
 L | permit | External | | NO | |
 L | MINIMUM_LIQUIDITY | External | | | NO | |
 L | factory | External | | NO | |
 L | token0 | External | | NO | |
 L | token1 | External | | NO |
 L | getReserves | External | | NO | |
L | price0CumulativeLast | External
 L | price1CumulativeLast | External | | NO | |
 L | kLast | External | | NO | |
 L | burn | External | | | NO | |
 L | swap | External | | | NO | |
 L | sync | External | | NO | |
 L | initialize | External | | | NO | |
**IUniswapV2Router01** | Interface | |||
| L | factory | External | | NO | |
 L | WETH | External | | NO | |
 L | addLiquidity | External | | | NO | |
| L | addLiquidityETH | External | | 1 NO | |
```



```
| removeLiquidity | External | | | | | | | | | | | | | | |
 | removeLiquidityETH | External | | | NO | |
 | swapETHForExactTokens | External | | | | | | | | | | | |
L | quote | External | | | NO | |
| getAmountOut | External | | NO | |
L | getAmountIn | External | NO | |
L | getAmountsOut | External | | NO | |
L | getAmountsIn | External | | NO | |
**IUniswapV2Router02** | Interface | IUniswapV2Router01 |||
□ | swapExactTokensForTokensSupportingFeeOnTransferTokens | External | | ● | NO | |
L | swapExactETHForTokensSupportingFeeOnTransferTokens | External | | ■ NO | |
| **DividendPayingTokenInterface** | Interface | |||
L | dividendOf | External | | | NO | |
| **DividendPayingTokenOptionalInterface** | Interface | |||
| withdrawableDividendOf | External | | NO | |
| withdrawnDividendOf | External | NO | |
L | accumulativeDividendOf | External | | | NO | |
**DividendPayingToken** | Implementation | ERC20, Ownable, DividendPayingTokenInterface,
DividendPayingTokenOptionalInterface |||
| L | distributeDividends | Public | | OnlyOwner |
L | withdrawDividend | Public | | | NO | |
□ withdrawDividendOfUser | Internal □ □ □ □
L | dividendOf | Public | | NO | |
L | withdrawableDividendOf | Public | | NO | |
L | withdrawnDividendOf | Public | | NO |
L | accumulativeDividendOf | Public | | NO | |
L | transfer | Internal 🔒 | 🛑 | |
```



```
L | mint | Internal | | | |
L | burn | Internal 🔒 | 🛑 | |
 └ | setBalance | Internal 🔒 | ● | |
**DividendTracker** | Implementation | Ownable, DividendPayingToken |||
 L | transfer | Internal | | | |
| withdrawDividend | Public | NO | | |
| updateMinimumTokenBalanceForDividends | External | | | onlyOwner |
| excludeFromDividends | External | | | onlyOwner |
updateClaimWait | External | onlyOwner |
| setLastProcessedIndex | External | | | onlyOwner |
 L | getLastProcessedIndex | External | | NO | |
| getNumberOfTokenHolders | External | | NO | |
L | getAccount | Public | | NO | |
L | getAccountAtIndex | Public | | NO | |
L | canAutoClaim | Private 🔐 | | |
L | setBalance | External | | onlyOwner |
L | process | Public | | NO | |
L | processAccount | Public ! | • | onlyOwner |
**ElonFloki** | Implementation | ERC20, Ownable |||
L | < Receive Ether > | External | | SI | NO | |
L | claimStuckTokens | External | | | onlyOwner |
 L | isContract | Internal | | | |
L | sendBNB | Internal 🔒 | ● ||
L | excludeFromFees | External | | | onlyOwner |
L | isExcludedFromFees | Public | | NO | |
L | enableTrading | External | | | onlyOwner |
L | swapAndLiquify | Private 🔐 | 🛑 | |
L | swapAndSendDividends | Private 🔐 | 🛑 | |
| setSwapEnabled | External | onlyOwner |
L | updateMinimumBalanceForDividends | External | | | onlyOwner |
```



```
| getClaimWait | External | NO | |
 | getTotalDividendsDistributed | External | NO | |
 | withdrawableDividendOf | Public | NO | |
 | dividendTokenBalanceOf | Public | NO | |
 L | totalRewardsEarned | Public | | | NO | |
 L | excludeFromDividends | External | | | onlyOwner |
 | getAccountDividendsInfo | External | NO |
| | getAccountDividendsInfoAtIndex | External | | NO | |
 processDividendTracker | External | | NO | |
 | getLastProcessedIndex | External | | NO | |
| L | getNumberOfDividendTokenHolders | External | | NO | |
### Legend
| Symbol | Meaning |
|:-----|
      | Function can modify state |
  Function is payable |
```



STATIC ANALYSIS

```
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```

Result => A static analysis of contract's source code has been performed using slither,

No major issues were found in the output



FUNCTIONAL TESTING

Router (PCS V2):

0xD99D1c33F9fC3444f8101754aBC46c52416550D1

1- Adding liquidity by owner (trades disabled) (passed):

https://testnet.bscscan.com/tx/0xe034393382e7b67d571b54e212456f 7649551535da64f9f8cce52d6b6cb1ea16

2- Buying when excluded from fees before enabling trades (0% tax)

(passed):

https://testnet.bscscan.com/tx/0xc93bb46d1e5eff24e35319a24f97af9bfe470dac9c774e25fb07f2ac87874e45

3- Selling when excluded from fees before enabling trades (0% tax) (passed):

https://testnet.bscscan.com/tx/0xe3ea1008e3480be7ce008e648b62dd 3c1d6c961a5597668897a5205500edd75d

4- Transferring when excluded from fees before enabling trades (0% tax) (passed):

https://testnet.bscscan.com/tx/0x60e07173e9d793fa9ceda326d760e0 2fa88d37d1282b20e480cb97ad29ce083c

5- Buying when not excluded from fees (0-10% tax) (passed):

https://testnet.bscscan.com/tx/0xfc30a4a5318d2b8bc425d22a7c7b06d1b9340bef81dfbb80089cbaf98bd9d6ae



FUNCTIONAL TESTING

6- Selling when not excluded from fees (0-10% tax) (passed):

https://testnet.bscscan.com/tx/0xc92f551a22aa9387aabe5d65f1c04f2 9d76f3d13ddb661fa7d7c05bcc6957d44

7- Transferring when not excluded from fees (0-10% tax) (passed):

https://testnet.bscscan.com/tx/0x9b5f0f3778e9c4e4518ce099cdcbbbfa0da23915a20394128f037b316087cec1

8- Internal swap & rewards distribution (passed):

- BNB sent to marketing wallet
- A portion of tokens burnt
- A portion of tokens were added to liquidity
- A portion of tokens swapped to BUSD and sent to dividend tracker
- Dividend tracker distributed reward tokens (BUSD)

https://testnet.bscscan.com/tx/0xc92f551a22aa9387aabe5d65f1c04f2 9d76f3d13ddb661fa7d7c05bcc6957d44



MANUAL TESTING

Centralization - Trades must be enabled

Severity: Informational

function: enableTrading

Status: Resolved

Overview:

The smart contract owner must enable trades for holders. If trading remains disabled, no one would be able to buy/sell/transfer tokens.

```
function enableTrading() external onlyOwner {
  require(!tradingEnabled, "Trading already enabled.");
  tradingEnabled = true;
  swapEnabled = true;
}
```

Suggestion

To mitigate this centralization issue, we propose the following options:

- Renounce Ownership: Consider relinquishing control of the smart contract by renouncing ownership. This would remove the ability for a single entity to manipulate the router, reducing centralization risks.
- Multi-signature Wallet: Transfer ownership to a multi-signature wallet. This would require multiple approvals for any changes to the mainRouter, adding an additional layer of security and reducing the centralization risk.
- 3. Transfer ownership to a trusted and valid 3rd party in order to guarantee enabling of the trades



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