

TechRate
March, 2022



SMART CONTRACTS SECURITY AUDIT REPORT



Techrate_audits



Techrate



Techrate1

Audit Details



Audited project

Archie Neko



Deployer address

0x088b1fb7919fe8e25377590ac759d4cd73378400



Client contacts:

Archie Neko team



Blockchain

Ethereum



Project website:

<https://www.archieneko.com/>

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the 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 below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

Background

TechRate was commissioned by Archie Neko to perform an audit of smart contracts:

<https://etherscan.io/address/0x8141203e53b67CEBd5529fD1CECbc937Da8b9E09#code>

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

Contracts Details

Token contract details for 13.03.2022

Contract name Archie Neko

Contract address 0x8141203e53b67CEBd5529fD1CECbc937Da8b9E09

Total supply 10,000,000,000,000,000,000,000

Token ticker ARCHIE

Decimals 18

Token holders 0

Transactions count 1

Daily max transaction amount 2400000000000000000000

Reflect fee buy/sell 6/6

Liquidity fee buy/sell 3/4

Uniswap V2 pair 0x1b8656d50b21056728916c60e140e7bd278068e4

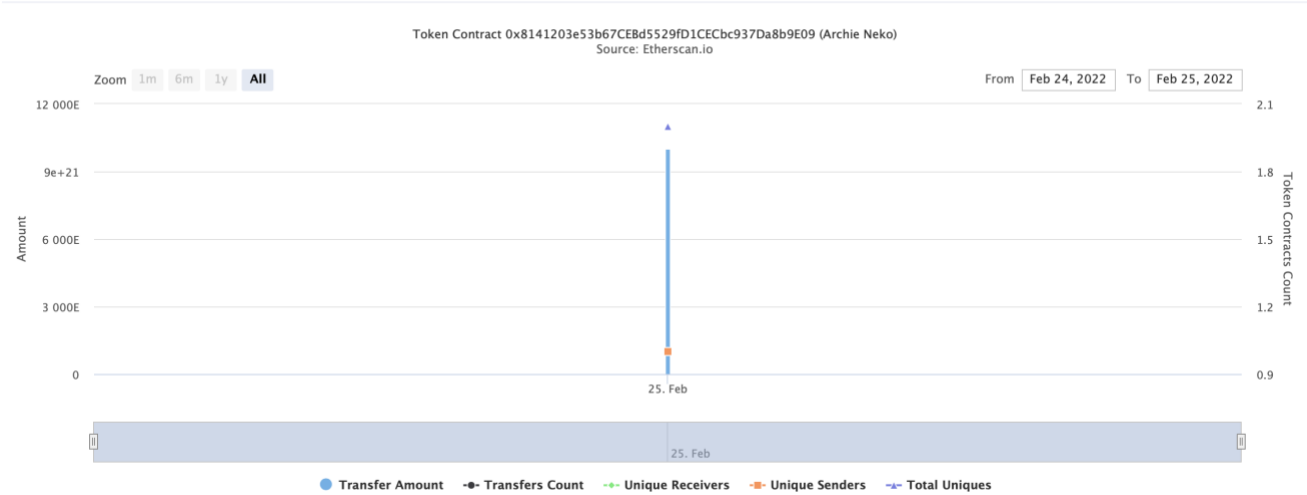
Contract deployer address 0x088b1fb7919fe8e25377590ac759d4cd73378400

Owner address 0x0f7b55e157f91528f1ee480727785f68ffdf8627

Archie Neko Contract Interaction Details

Time Series: Token Contract Overview

Fri 25, Feb 2022 - Fri 25, Feb 2022



Archie Neko Top 10 Token Holders

Rank	Address	Quantity	Percentage	Analytics
There are no matching entries				



Contract functions details

+ [Int] IERC20

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+ [Lib] SafeMath

- [Int] add
- [Int] sub
- [Int] sub
- [Int] mul
- [Int] div
- [Int] div
- [Int] mod
- [Int] mod

+ Context

- [Int] _msgSender
- [Int] _msgData

+ [Lib] Address

- [Int] isContract
- [Int] sendValue #
- [Int] functionCall #
- [Int] functionCall #
- [Int] functionCallWithValue #
- [Int] functionCallWithValue #
- [Prv] _functionCallWithValue #

+ Ownable (Context)

- [Pub] <Constructor> #
- [Pub] owner
- [Pub] renounceOwnership #
 - modifiers: onlyOwner
- [Pub] transferOwnership #
 - modifiers: onlyOwner

+ [Int] IUniswapV2Factory

- [Ext] feeTo

- [Ext] feeToSetter
- [Ext] getPair
- [Ext] allPairs
- [Ext] allPairsLength
- [Ext] createPair #
- [Ext] setFeeTo #
- [Ext] setFeeToSetter #

+ [Int] IUniswapV2Pair

- [Ext] name
- [Ext] symbol
- [Ext] decimals
- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] allowance
- [Ext] approve #
- [Ext] transfer #
- [Ext] transferFrom #
- [Ext] DOMAIN_SEPARATOR
- [Ext] PERMIT_TYPEHASH
- [Ext] nonces
- [Ext] permit #
- [Ext] MINIMUM_LIQUIDITY
- [Ext] factory
- [Ext] token0
- [Ext] token1
- [Ext] getReserves
- [Ext] price0CumulativeLast
- [Ext] price1CumulativeLast
- [Ext] kLast
- [Ext] mint #
- [Ext] burn #
- [Ext] swap #
- [Ext] skim #
- [Ext] sync #
- [Ext] initialize #

+ [Int] IUniswapV2Router01

- [Ext] factory
- [Ext] WETH
- [Ext] addLiquidity #
- [Ext] addLiquidityETH (\$)
- [Ext] removeLiquidity #
- [Ext] removeLiquidityETH #
- [Ext] removeLiquidityWithPermit #

- [Ext] removeLiquidityETHWithPermit #
- [Ext] swapExactTokensForTokens #
- [Ext] swapTokensForExactTokens #
- [Ext] swapExactETHForTokens (\$)
- [Ext] swapTokensForExactETH #
- [Ext] swapExactTokensForETH #
- [Ext] swapETHForExactTokens (\$)
- [Ext] quote
- [Ext] getAmountOut
- [Ext] getAmountIn
- [Ext] getAmountsOut
- [Ext] getAmountsIn

+ [Int] IUniswapV2Router02 (IUniswapV2Router01)

- [Ext] removeLiquidityETHSupportingFeeOnTransferTokens #
- [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #
- [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
- [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens (\$)
- [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #

+ ArhcieNeko (Context, IERC20, Ownable)

- [Pub] <Constructor> #
- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance
- [Pub] approve #
- [Prv] _approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Ext] burn #
- [Int] _burnTokens #
- [Int] _transfer #
- [Pub] _getRateTokenAndETH
- [Int] swapAndLiquify #
 - modifiers: lockTheSwap
- [Int] swapTokensForEth #
- [Int] addLiquidity #
- [Int] _tokenTransfer #
- [Int] removeAllTax #
- [Int] setTaxBuyTax #

- [Int] setTaxSellTax #
- [Prv] _transferStandard #
- [Prv] _transferToExcluded #
- [Prv] _transferFromExcluded #
- [Prv] _transferBothExcluded #
- [Prv] _takeLiquidity #
- [Prv] _takeMarketing #
- [Prv] _takeTreasury #
- [Prv] _takeFoundation #
- [Prv] _reflectTax #
- [Prv] _getValues
- [Prv] _getTValues
- [Prv] _getRValues
- [Prv] _getRate
- [Prv] _getCurrentSupply
- [Prv] calculateReflectionTax
- [Prv] calculateTotalTax
- [Pub] tokenFromReflection
- [Pub] reflectionFromToken
- [Pub] isExcludedFromReward
- [Pub] totalFees
- [Pub] deliver #
- [Pub] isExcludedFromFee
- [Pub] gettransactionDataAmount
- [Pub] gettransactionDataTime
- [Pub] getTransactionDataIsLocked
- [Pub] getTransactionDataLockedTime
- [Pub] getTransactionDataLockedPeriod
- [Prv] transferToAddressETH #
- [Pub] excludeFromReward #
 - modifiers: onlyOwner
- [Ext] includeInReward #
 - modifiers: onlyOwner
- [Pub] excludeFromFee #
 - modifiers: onlyOwner
- [Pub] includeInFee #
 - modifiers: onlyOwner
- [Ext] setBuyTaxPercent #
 - modifiers: onlyOwner
- [Ext] setSellTaxPercent #
 - modifiers: onlyOwner
- [Ext] setMarketingAddress #
 - modifiers: onlyOwner
- [Ext] setTreasuryAddress #
 - modifiers: onlyOwner

- [Ext] setFoundationAddress #
 - modifiers: onlyOwner
- [Pub] setSwapAndLiquifyEnabled #
 - modifiers: onlyOwner
- [Ext] setEnableTrading #
 - modifiers: onlyOwner
- [Ext] setNumTokensSellToAddToLiquidityPercentageAndmaxwalletamount #
 - modifiers: onlyOwner
- [Ext] setDailymaxTxAmountAndmaxTxAmount #
 - modifiers: onlyOwner
- [Ext] setAutomatedMarketMakerPairs #
 - modifiers: onlyOwner
- [Ext] lockAccount #
 - modifiers: onlyOwner
- [Ext] unLockAccount #
 - modifiers: onlyOwner
- [Ext] SetAccountMaxWalletLimit #
 - modifiers: onlyOwner
- [Ext] airdrop #
 - modifiers: onlyOwner
- [Int] airdropInternal #
- [Ext] airdropArray #
 - modifiers: onlyOwner
- [Ext] <Fallback> (\$)

(\$)= payable function

= non-constant function

Issues Checking Status

Issue description	Checking status
1. Compiler errors.	Passed
2. Race conditions and Reentrancy. Cross-function race conditions.	Passed
3. Possible delays in data delivery.	Passed
4. Oracle calls.	Passed
5. Front running.	Passed
6. Timestamp dependence.	Passed
7. Integer Overflow and Underflow.	Passed
8. DoS with Revert.	Passed
9. DoS with block gas limit.	Low issues
10. Methods execution permissions.	Passed
11. Economy model of the contract.	Passed
12. The impact of the exchange rate on the logic.	Passed
13. Private user data leaks.	Passed
14. Malicious Event log.	Passed
15. Scoping and Declarations.	Passed
16. Uninitialized storage pointers.	Passed
17. Arithmetic accuracy.	Passed
18. Design Logic.	Passed
19. Cross-function race conditions.	Passed
20. Safe Open Zeppelin contracts implementation and usage.	Passed
21. Fallback function security.	Passed

Security Issues

✓ High Severity Issues

No high severity issues found.

✓ Medium Severity Issues

No medium severity issues found.

✓ Low Severity Issues

1. Out of gas

Issue:

- The function `includeInReward()` uses the loop to find and remove addresses from the `_excluded` list. Function will be aborted with `OUT_OF_GAS` exception if there will be a long excluded addresses list.
- The function `_getCurrentSupply()` also uses the loop for evaluating total supply. It also could be aborted with `OUT_OF_GAS` exception if there will be a long excluded addresses list.

Recommendation:

Check that the excluded array length is not too big.

Issue:

- The function `airdropArray()` uses the loop to airdrop tokens amounts list to addresses list. Function will be aborted with `OUT_OF_GAS` exception if there will be a long lists.

Recommendation:

Check that the array's length is not too big.

Notes:

- 10% of the marketing, treasury and foundation fees remain on the contract.

Owner privileges (In the period when the owner is not renounced)

- Owner can exclude addresses from the fees.
- Owner can change all fees.
- Owner can change fee receivers addresses.
- Owner can enable/disable swap and liquify.
- Owner can enable trading.
- Owner can change numTokensSellToAddToLiquidity and _maxwalletamount.
- Owner can change _dailymaxTxAmount and _maxTxAmount.
- Owner can mark addresses as automatedMarketMakerPairs.
- Owner can lock/unlock users accounts.
- Owner can exclude from max transaction amount.
- Owner can airdrop tokens.

Conclusion

Smart contracts contain low severity issues! Liquidity pair contract's security is not checked due to out of scope. The further transfers and operations with the funds raise are not related to this particular contract.

Liquidity locking details are NOT provided by the team.

TechRate note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.