

Blockchain Security - Smart Contract Audits

Security Assessment

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Disclaimer

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ContractWolf should not be used as a <u>decision</u> to invest into an audited project and is not affiliated nor partners to its audited contract projects.

ContractWolf provides transparent report to all its "clients" and to its "clients participants" and will not claim any guarantee of bug-free code within it's **SMART CONTRACT**.

ContractWolf presence is to analyze, audit and assess the client's smart contract's code.

Each company or projects should be liable to its security flaws and functionalities.

Scope of Work

Wojak Inu's team agreed and provided us with the files that needs to be tested (Github, Bscscan, Etherscan, files, etc.). The scope of the audit is the main contract.

The goal of this engagement was to identify if there is a possibility of security flaws in the implementation of the contract or system.

ContractWolf will be focusing on contract issues and functionalities along with the projects claims from smart contract to their website, whitepaper and repository which has been provided by **Wojak Inu.**

Description

Wojak is one of the most recognizable memic characters in the crypto world, named after the Polish word for soldier. The soldier has become so globally popular that his bland face is used in an infinite number of modifications such as memes, films, or drawings.



Risk Level Classification

Risk Level represents the classification or the probability that a certain function or threat that can exploit vulnerability and have an impact within the system or contract.

Risk Level is computed based on CVSS Version 3.0

Level	Value	Vulnerability
Critical	9 - 10	An Exposure that can affect the contract functions in several events that can risk and disrupt the contract
High	7 - 8.9	An Exposure that can affect the outcome when using the contract that can serve as an opening in manipulating the contract in an unwanted manner
Medium	4 - 6.9	An opening that could affect the outcome in executing the contract in a specific situation
Low	0.1 - 3.9	An opening but doesn't have an impact on the functionality of the contract
Informational	0	An opening that consists of information's but will not risk or affect the contract

Auditing Approach

Every line of code along with its functionalities will undergo manual review to check its security issues, quality, and contract scope of inheritance. The manual review will be done by our team that will document any issues that there were discovered.

Methodology

The auditing process follows a routine series of steps:

- 1. Code review that includes the following:
 - Review of the specifications, sources, and instructions provided to ContractWolf to make sure we understand the size, scope, and functionality of the smart contract.
 - Manual review of code, our team will have a process of reading the code line-by-line with the intention of identifying potential vulnerabilities and security flaws.
- 2. Testing and automated analysis that includes:
 - Testing the smart contract functions with common test cases and scenarios, to ensure that it returns the expected results.
- 3. Best practices review, the team will review the contract with the aim to improve efficiency, effectiveness, clarifications, maintainability, security, and control within the smart contract.
- 4. Recommendations to help the project take steps to secure the smart contract.

Used Code from other Frameworks/Smart Contracts (Direct Imports)

Imported Packages

- Context
- IERC20
- SafeMath
- Address
- Ownable
- IUniswapV2Factory
- IUniswapV2Pair
- IUniswapV2Rotuer01
- IUniswapV2Router02
- WojakInu

Description

Optimization enabled: No

Decimal: 9

Symbol: WojakInu

Max / Total Supply: 1,000,000,000,000

Capabilities

Components

Version	Contracts	Libraries	Interfaces	Abstract
1.0	2	2	5	1

Exposed Functions

Version	Public	Private	External	Internal
1.0	26	7	76	19

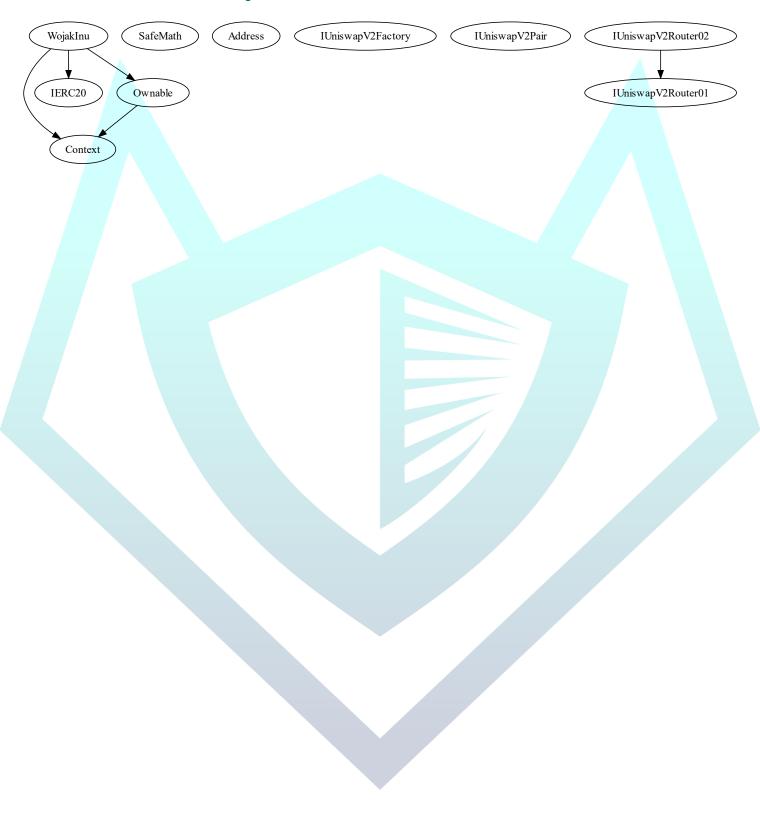
State Variables

Version	Total	Public
1.0	28	16

Capabilities

Version	Solidity	Experimental	Can	Uses	Has
	Versions	Features	Receive	Assembly	Destroyable
	Observed		Eunde		Contracts
	Observed		Funds		Contracts

Inheritance Graph



Correct implementation of Token Standard

Tested	Verified
✓	✓

Overall Checkup (Smart Contract Security)

Tested	Verified
√	✓

Function	Description	Exist	Tested	Verified
TotalSupply	Information about the total coin or token supply	\checkmark	√	√
BalanceOf	Details on the account balance from a specified address	√	√	✓
Transfer	An action that transfers a specified amount of coin or token to a specified address	√	✓	✓
TransferFrom	An action that transfers a specified amount of coin or token from a specified address	√	√	✓
Approve	Provides permission to withdraw specified number of coin or token from a specified address	√	✓	✓

Verify Claims

Statement	Exist	Tested	Deployer
Renounce Ownership	√	√	√
Mint	-	_	_
Burn	√	✓	X
Block	√	✓	√
Pause	_	_	_

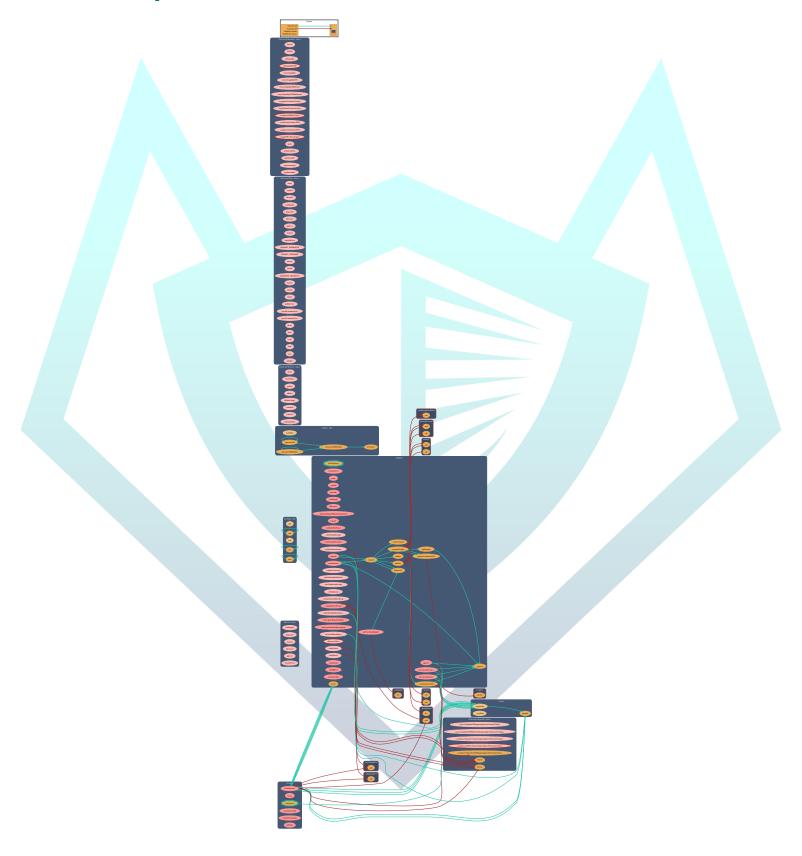
Legend

Attribute	Symbol
Verified / Can	✓
Verified / Cannot	X
Unverified / Not checked	
Not Available	_

Write Functions of Contract

1. Launch	14. setMarketingWalletAddress
1. Edulion	
2. approve	15. setMaxTxAmount
	46 anthlumTakanaDafaraQuan
changeRouterVersion	16. setNumTokensBeforeSwap
4. decreaseAllowance	17. setSellTaxes
5. enableDisableWalletLimit	18. setSwapAndLiquifyByLimitOnly
C :All	19. setSwapAndLiquifyEnabled
6. increaseAllowance	13. 3ctowap/stractiquityEnabled
7. setBuyTaxes	20. setTeamWalletAddress
8. setDistributionSettings	21. setWalletLimit
setIsExcludedFromFee	22. transfer
10. setIsTxLimitExempt	23. transferFrom
44	24. transferOwnership
11. setIsWalletLimitExempt	24. uansierownersnip
12. setKillBlock	25. waiveOwnership
13. setMarketPairStatus	26. writeAntiwhale

Call Graph



SWC Attacks

ID	Title	Status
<u>SWC-136</u>	Unencrypted Private Data On-Chain	PASSED
<u>SWC-135</u>	Code With No Effects	PASSED
SWC-134	Message call with hardcoded gas amount	PASSED
SWC-133	Hash Collisions with Multiple Variable Length Arguments	PASSED
<u>SWC-132</u>	Unexpected Ether balance	PASSED
<u>SWC-131</u>	Presence of unused variables	PASSED
SWC-130	Right-To Left Override control character (U+202E)	PASSED
SWC-129	Typographical Error	PASSED
SWC-128	DoS With Block Gas Limit	PASSED
<u>SWC-127</u>	Arbitrary Jump with Function Type Variable	PASSED
SWC-126	Insufficient Gas Griefing	PASSED
<u>SWC-125</u>	Incorrect Inheritance Order	PASSED
<u>SWC-124</u>	Write to Arbitrary Storage Location	PASSED
<u>SWC-123</u>	Requirement Violation	PASSED
SWC-122	Lack of Proper Signature Verification	PASSED
<u>SWC-121</u>	Missing Protection against Signature Replay Attacks	PASSED
SWC-120	Weak Sources of Randomness from Chain Attributes	LOW ISSUE
SWC-119	Shadowing State Variables	PASSED
SWC-118	Incorrect Constructor Name	PASSED
<u>SWC-117</u>	Signature Malleability	PASSED
<u>SWC-116</u>	Block values as a proxy for time	PASSED
SWC-115	Authorization through tx.origin	PASSED
SWC-114	Transaction Order Dependence	PASSED
SWC-113	DoS with Failed Call	PASSED
SWC-112	Delegate call to Untrusted Callee	PASSED
SWC-111	Use of Deprecated Solidity Functions	PASSED

<u>SWC-110</u>	Assert Violation	PASSED
SWC-109	Uninitialized Storage Pointer	PASSED
SWC-108	State Variable Default Visibility	LOW ISSUE
<u>SWC-107</u>	Reentrancy	PASSED
<u>SWC-106</u>	Unprotected SELFDESTRUCT Instruction	PASSED
<u>SWC-105</u>	Unprotected Ether Withdrawal	PASSED
<u>SWC-104</u>	Unchecked Call Return Value	PASSED
SWC-103	Floating Pragma	LOW ISSUE
SWC-102	Outdated Compiler Version	PASSED
<u>SWC-101</u>	Integer Overflow and Underflow	PASSED
<u>SWC-100</u>	Function Default Visibility	PASSED

AUDIT PASSED

Low Issues

A floating pragma is set (SWC-103)	L: 9	
State variable visibility is not set	L: 398, 431	
(SWC-108)		
Potential use of "block.number" as	L: 545, 712	
source of randomness (SWC-120)		

Audit Comments

- Deployer can update total buy taxes up to 100%
- Deployer can update total sell taxes up to 100%
- Deployer can update wallet limit with an indefinite amount
- Deployer can update max transaction with an indefinite amount
- Deployer can renounce ownership
- Deployer can transfer ownership
- Deployer can launch swapping
- Deployer can exclude/include addresses from market pair status
- Deployer can exclude/include addresses from transaction limit
- Deployer can exclude/include addresses from fees
- Deployer can update distribution settings
- Deployer can toggle check wallet limit amount
- Deployer can exclude/include addresses from wallet limit amount
- Deployer can update minimum token amount before swap
- Deployer can change marketing wallet address
- Deployer can change team wallet address
- Deployer can toggle swap and liquify
- Deployer can toggle swap and liquify with limit
- Deployer can change IUniswap Router and Pair address
- Deployer can update kill block time
- Deployer can block/unblock users
- Deployer cannot burn tokens
- Deployer cannot mint after initial deployment
- Deployer cannot pause contract



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