



RugFreeCoins Audit



HODLX Token Smart Contract Security Audit

31st of March, 2023

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Audit details



Audited project
HODLX Token



Contract Address
0xAeBdbcc7d6821E3924EE5167b4138a43c19Cf681



Client contact
HODL Team



Blockchain
Binance smart chain



Project website
<https://hodltoken.net/>


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 disclaimer below – please make sure to read it in full.


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Overview


 The owner can mint tokens after the initial deployment.

 The owner can't set a max transaction limit

 The owner can't pause trading.

 The owner can't set fees over 25%.

 The owner can't blacklist wallets.

 The owner can't set a max wallet limit

 The owner can't claim the contract's balance of its own token.

\$HODLX is a key token within the HODL ecosystem. With no taxes, the token is ideal for day traders and those wanting to stake and farm to earn \$HODL, \$HODLX, HODL Hands NFTs, and enjoy betting. \$HODLX is both an amazing token in its own right, and an incredible compliment to the entire HODL ecosystem, packed with useful utility, including being able to be swapped for discounted NFTs and used within the future play to earn gaming and poker that are being developed.

Background

Rugfreecoins was commissioned by the HODL Team to perform an audit of the smart contract.

<https://bscscan.com/token/0xAeBdbcc7d6821E3924EE5167b4138a43c19Cf681>

The focus of this audit is to verify that the smart contract is secure, resilient, and working according to the specifications.

The information in this report should be used to understand the risk exposure of the smart contract, project feasibility, and long-term sustainability, and as a guide to improving the smart contract's security posture by remediating the identified issues.

Roadmap

Phase 01

CONTRACT INNOVATION

- UPGRADABLE CONTRACT
- GAS FEES OPTIMIZED

STAKING & FARMING

- INVEST HODL FUNDS

EXCHANGE LISTING

- CEX & DEX LISTINGS
- LISTINGS OPTIMIZATION

PARTNERSHIPS

- MOONSCAN
- STAYSAFU

PRODUCTS

- DASHBOARD
- MERCH STORE
- PHYSICAL COINS

NFTS

- HODL HANDS NFTS
- BUY NFTS ON CARD

GAMES

- HODL NINJA
- HODL CRUSH

BETTING

- HODL BET

LEGAL

- OFAC SANCTION BLOCKS

Phase 02

CONTRACT INNOVATION

- CONTRACT FUNCTIONS OPTIMIZED
- REWARD STACKING
- BURN LOTTERY

STAKING & FARMING

- HODL DEFH HUB

EXCHANGE LISTING

- TRADING TEAM
- ADVANCED MARKET-MAKING

PARTNERSHIPS

- COINVOTE
- MOBULA

PRODUCTS

- WEBSITE V2
- DEFH HUB

NFTS

- MIGRATED TO BSC
- NFT STAKING

GAMES

- HODL GRABBER
- MOONSHOT

BETTING

- BETTING PLATFORM INTEGRATION

LEGAL

- COMPANY REGISTRATION

Phase 03

CONTRACT INNOVATION

- MULTIPLE REWARD OPTIONS
- REINVESTMENT BONUS
- HODL VAULT

STAKING & FARMING

- STAKE TOKENS TO EARN NFTS

EXCHANGE LISTING

- TOP 10 CEX LISTING

PARTNERSHIPS

- CHAINLINK LABS
- LAKEVIEW META

PRODUCTS

- DASHBOARD V2
- FIAT ON AND OFF RAMPS
- HODL APP

NFTS

- NFTS GET BONUS \$HODL

GAMES

- NEW GAME FEATURES
- SOLITAIRE

BETTING

- APP INTEGRATION

LEGAL

- AML ANALYTICS

Phase 04

CONTRACT INNOVATION

- REFER AND EARN
- CROSS-CHAIN

STAKING & FARMING

- INTEGRATE DEFI HUB

EXCHANGE LISTING

- TOP 5 CEX LISTING

PARTNERSHIPS

- FLOOZ
- GLOBAL PARTNERSHIPS

PRODUCTS

- MERCH STORE V2
- TEXAS HODL
- HODL PAY

NFTS

- POKER INTEGRATION
- HODL HANDS 2

GAMES

- COMPETITION BOT
- PLAY-TO-EARN GAMING
- STUDIO GAME

BETTING

- NEW BETTING GAMES

LEGAL

- LIVE AML CHECKS

Tokenomics

0% when buying & selling

Target market and the concept

Target market

- Anyone who's interested in the Crypto space with long-term investment plans.
- Anyone who's ready to Swap \$HODLX for discounted HODL Hands NFTs.
- Anyone who's interested in trading tokens.
- Anyone who's ready to Stake \$HODLX to earn HODL Hands NFTs.
- Anyone who's interested in taking part in the HODLX ecosystem.
- Anyone who's interested in taking part in the HODLX play-to-earn game.
- Anyone interested in participating in the future plans of HODLX Token.
- Anyone who's interested in making financial transactions with any other party using HODLX Token as the currency.

Potential to grow with score points

1.	Project efficiency	9/10
2.	Project uniqueness	9/10
3	Information quality	10/10
4	Service quality	9/10
5	System quality	9/10
6	Impact on the community	9/10
7	Impact on the business	10/10
8	Preparing for the future	9/10
9	Smart contract security	9/10
10	Smart contract functionality assessment	10/10
Total Points		9.3/10

Contract details

Token contract details for 31st of March 2023

Contract name	HODLX
Contract address	0xAeBdbcc7d6821E3924EE5167b4138a43c19Cf681
Token supply	32,321,676,145.577437
Token ticker	HODLX
Decimals	18
Token holders	10,357
Transaction count	76,069
Contract deployer address	0x3E2c9157785de2200C2572fDBaB70F040EFc4098
Contract's current owner address	0x33e3406f2594ac4c2a8f3f573ca0adafb6c80fdb





Contract code function details






No	Category	Item	Result
1	Coding conventions	BRC20 Token standards	pass
		compile errors	pass
		Compiler version security	pass
		visibility specifiers	pass
		Gas consumption	pass
		SafeMath features	pass
		Fallback usage	pass
		tx.origin usage	pass
		deprecated items	pass
		Redundant code	pass
		Overriding variables	pass
2	Function call audit	Authorization of function call	pass
		Low level function (call/delegate call) security	pass
		Returned value security	pass
		Selfdestruct function security	pass
3	Business Security	Access control of owners	HIGH
		Business logics	pass
		Business implementations	pass
4	Integer overflow/underflow		pass
5	Reentrancy		pass
6	Exceptional reachable states		pass
7	Transaction ordering dependence		pass
8	Block properties dependence		pass
9	Pseudo-random number generator (PRNG)		pass
10	DoS (Denial of Service)		pass
11	Token vesting implementation		pass
12	Fake deposit		pass

13	Event security		pass
14	Centralisation		HIGH

Contract description table

The below table represents the summary of the contracts and methods in the token contract. We scanned the whole contract and listed down all the Interfaces, functions, and implementations with their visibility and mutability.

Contract	Type	Bases		
L	Function Name	Visibility	Mutability	Modifiers
Context	Implementation			
L	_msgSender	Internal 		
L	_msgData	Internal 		
SafeMath	Library			
L	add	Internal 		
L	sub	Internal 		
L	sub	Internal 		
L	mul	Internal 		
L	div	Internal 		
L	div	Internal 		
L	mod	Internal 		
L	mod	Internal 		
Ownable	Implementation	Context		
L		Internal 		

L	owner	Public !		NO !
L	renounceOwnership	Public !		onlyOwner
L	transferOwnership	Public !		onlyOwner
IBEP20	Interface			
L	totalSupply	External !		NO !
L	decimals	External !		NO !
L	symbol	External !		NO !
L	name	External !		NO !
L	getOwner	External !		NO !
L	balanceOf	External !		NO !
L	transfer	External !		NO !
L	allowance	External !		NO !
L	approve	External !		NO !
L	transferFrom	External !		NO !
BEP20	Implementation	Context, IBEP20, Ownable		
L		Public !		NO !
L	getOwner	External !		NO !
L	name	Public !		NO !
L	symbol	Public !		NO !

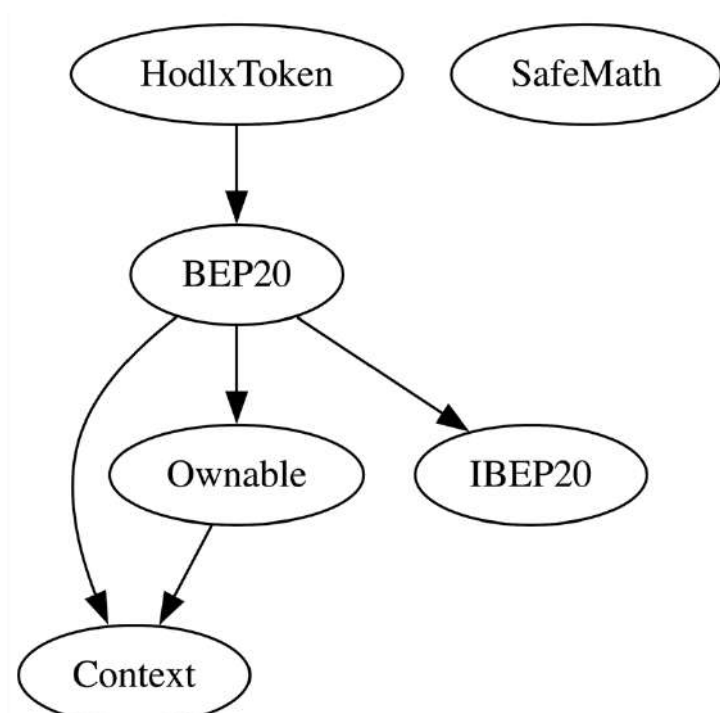
L	decimals	Public !		NO !
L	totalSupply	Public !		NO !
L	balanceOf	Public !		NO !
L	transfer	Public !	●	NO !
L	allowance	Public !		NO !
L	approve	Public !	●	NO !
L	transferFrom	Public !	●	NO !
L	increaseAllowance	Public !	●	NO !
L	decreaseAllowance	Public !	●	NO !
L	mint	Public !	●	onlyOwner
L	_transfer	Internal 🔒	●	
L	_mint	Internal 🔒	●	
L	_burn	Internal 🔒	●	
L	_approve	Internal 🔒	●	
L	_burnFrom	Internal 🔒	●	
HodlXToken	Implementation	BEP20		
L	mint	Public !	●	onlyOwner
L	delegates	External !		NO !
L	delegate	External !	●	NO !
L	delegateBySig	External !	●	NO !

L	getCurrentVotes	External !		NO !
L	getPriorVotes	External !		NO !
L	_delegate	Internal 🔒	●	
L	_moveDelegates	Internal 🔒	●	
L	_writeCheckpoint	Internal 🔒	●	
L	safe32	Internal 🔒		
L	getChainId	Internal 🔒		

Legend

Symbol	Meaning
●	Function can modify state
🔒	Function is payable

Inheritance Hierarchy



Security issue checking status

❖ High severity issues

No High severity issues found

❖ Medium severity issues

No medium severity issues found

❖ Low severity issues

No low severity issues found

❖ Centralization issues

Owner can mint new tokens

```
ftrace | funcSig
function mint(address _to↑, uint256 _amount↑) public onlyOwner {
    _mint(_to↑, _amount↑);
    _moveDelegates(address(0), _delegates[_to↑], _amount↑);
}
```

Owner privileges

- ❖ The owner can mint new tokens

```
ftrace | funcSig
function mint(address _to↑, uint256 _amount↑) public onlyOwner {
    _mint(_to↑, _amount↑);
    _moveDelegates(address(0), _delegates[_to↑], _amount↑);
}
```

Audit conclusion

RugFreeCoins team has performed in-depth tests, line-by-line manual code review, and automated audit of the smart contract. The smart contract was analyzed mainly for common smart contract vulnerabilities, exploits, manipulations, and hacks, according to the smart contract audit.

Smart contract functional Status: **PASS**

Number of risk issues: **1**

Solidity code functional issue level: **PASS**

Number of owner privileges: **1**

Centralization risk correlated to the active owner: **HIGH**

Smart contract active ownership: **ACTIVE**