



# **RugFreeCoins Audit**



**Inu Base Token**

**Smart Contract Security Audit**

**March 30, 2022**



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# Audit details



## **Audited project**

Inu Base Token



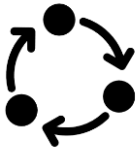
## **Contract Address**

0x7d6c3F7aAAF01A91574c82B82E57B1F64fF48039



## **Client contact**

Inu Base Team



## **Blockchain**

Binance smart chain



## **Project website**

<https://www.inubase.org/>

# 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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# Background

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

**<https://bscscan.com/token/0x7d6c3f7aaaf01a91574c82b82e57b1f64ff48039>**

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, long-term sustainability, and as a guide to improving the security posture of the smart contract by remediating the issues that were identified.

# About the project

Inu Base Token is a token built on the Binance Smart Chain that is with an innovative investment use case the main purpose of which is to seek out constant revenue sources, **auto staking protocol backed by Defi 3.0 yield farming** on BSC. Inu Base will bring an unparalleled, fixed APY of **2,033,199.56%, the highest of its kind** onto the BSC blockchain while imposing profound ease, simplicity, and accessibility upon all Inu Base holders. Each transaction, purchase incurs an 11% fee, and sale incurs a 19% fee.

## Features

- **5% of the buy and 7% sales fees** are directed to the RFV which helps sustain and back the Staking Rewards provided by the Positive Rebase.
- The **sustainability fee of 2% when buying and 5% when selling for Treasury, which is allocated for marketing** is what allows Inu Base Token to hold the aforementioned promise. Tokens will be swapped into BNB and will be sent to a marketing wallet. This way, Inu Base Token will have enough funds to promote the coin and spend for future development without selling tokens as the traditional way.
- The additional component included under the sustainability section is a **liquidity fee of 2% when buying and 5% when selling**, which is a redistribution mechanism that ensures the trading pool always has sufficient liquidity.
- 2% of all Inu Base tokens traded are burnt in the Fire Pit. The more that is traded, the more get put into the fire causing the fire pit to grow in size, larger and larger through self-fulfilling auto-compounding which in return acts to reduce the circulating supply of Inu Base and keep the Inu Base stable.

# Roadmap

## Phase 1:

- Website Development ✓
- Produce documents ✓
- Smart contract – Testnet ✓
- Contract Audit ✓
- Smart Contract – Mainnet ✓

## Phase 2:

- Marketing Campaign 1
- Fair Launch on PinkSale
- PancakeSwap Listing
- Lock Liquidity Locked 100 years
- CoinMarketCap/CoinGecko Listing

## Phase 3:

- Audit More
- CEX Listing
- Marketing Campaign 2
- Build V2 - Dapp Dashboard

# Tokenomics

## **11% fee when buying**

- 5% of trade goes to RFV in tokens
- 2% of trade goes to the Treasury in BNB
- 2% trade goes to the Fire Pit
- 2% of trade goes to the liquidity pool.

## **19% fee when selling**

- 7% of trade goes to RFV in tokens
- 5% of trade goes to the Treasury in BNB
- 2% trade goes to the Fire Pit
- 5% of trade goes to the liquidity pool.



# 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 earn a passive income by holding tokens.
- Anyone who's interested in trading tokens.
- Anyone who's ready in receiving automatic staking and compound rewards every 8 minutes.
- Anyone who's interested in receiving fixed interest of 2,033,199.56% per year.
- Anyone who's interested in taking part in the future plans of the Inu Base token.
- Anyone who's interested in making financial transactions with any other party using Inu Base as the currency.

## Core concept

### Reward mechanism

5% of when buying 7% when selling are stored in the EFV fund which helps sustain and back the staking rewards provided by the positive rebase.

Inu Base fund which is a separate wallet in the ecosystem. The Inu Base fund uses an algorithm that backs the Rebase Rewards and is supported by a portion of the buy and sell trading fees that accrue in the wallet.

In simple terms, the staking rewards (rebase rewards) which are distributed every 8 mins at a rate of 0.01510% are backed by the CompoundX parameter, thus ensuring a high and stable interest rate for Inu Base holders.

### Sustainable mechanism

The **sustainability fee of 2% when buying and 5% selling for Treasury that is allocated for marketing** is what allows Inu Base to promote the token and use funds to further the development of the platform. Tokens will be swapped into BNB and will be sent to a marketing wallet per transaction. This way, Inu Base will have access to the funds without selling tokens as the traditional way, which will enable them to consume funds without hurting the project.

**The liquidity fee of 2% when buying and 5% when selling**, is a redistribution mechanism that ensures the trading pool always has sufficient liquidity.

2% of Inu Base tokens from buying and selling traded are burnt in **Fire Pit**. The more that is traded the more gets put into the fire causing the fire pit to grow in size, larger and larger through self-fulfilling Auto-Compounding, reducing the circulating supply and keeping the Inu Base table.

# Potential to grow with score points

1.	Project efficiency	9/10
2.	Project uniqueness	9/10
3	Information quality	9/10
4	Service quality	9/10
5	System quality	9/10
6	Impact on the community	9/10
7	Impact on the business	9/10
8	Preparing for the future	9/10
Total Points		<b>9/10</b>

# Contract details

## Token contract details for 30<sup>th</sup> March 2022

Contract name	Inu Base
Contract address	0x7d6c3F7aAAF01A91574c82B82E57B1F64fF48039
Token supply	800,000
Token ticker	INUB
Decimals	5
Token holders	2
Transaction count	2
Auto liquidity receiver	0xde3dbb2b8fc53862165ed80da62ce6f4092c02ee
Fire Pit wallet	0xe1650e99df220e8a27905fea34b0df77e573a9a1
Inu Risk value receiver	0x54f8e0b48c213a48afa71ba4518f8c79ca97dd04
Treasury wallet	0x14984b25ee8372daf62aab1e45ebbbec062e7611
Contract deployer address	0x70635B64b844baF705a086fd40F556C2efF6BE45
Contract's current owner address	0x14984b25ee8372daf62aab1e45ebbbec062e7611

# 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	pass
		Business logics	pass
		Business implementations	pass
4	Integer overflow/underflow		pass
5	Reentrancy		pass
6	Exceptional reachable state		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


















<b>12</b>	<b>Fake deposit</b>		<b>pass</b>
<b>13</b>	<b>Event security</b>		<b>pass</b>
















# 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
<b>SafeMathInt</b>	<b>Library</b>			
L	mul	Internal 🔒		
L	div	Internal 🔒		
L	sub	Internal 🔒		
L	add	Internal 🔒		
L	abs	Internal 🔒		
<b>SafeMath</b>	<b>Library</b>			
L	add	Internal 🔒		
L	sub	Internal 🔒		
L	sub	Internal 🔒		
L	mul	Internal 🔒		
L	div	Internal 🔒		
L	div	Internal 🔒		
L	mod	Internal 🔒		






















<b>IERC20</b>	<b>Interface</b>			
L	totalSupply	External !		NO !
L	balanceOf	External !		NO !
L	allowance	External !		NO !
L	transfer	External !		NO !
L	approve	External !		NO !
L	transferFrom	External !		NO !
<b>IPancakeSwap Pair</b>	<b>Interface</b>			
L	name	External !		NO !
L	symbol	External !		NO !
L	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 !		NO !
L	price1CumulativeLast	External !		NO !
L	kLast	External !		NO !
L	mint	External !		NO !
L	burn	External !		NO !
L	swap	External !		NO !
L	skim	External !		NO !
L	sync	External !		NO !
L	initialize	External !		NO !
<b>IPancakeSwap Router</b>	<b>Interface</b>			
L	factory	External !		NO !
L	WETH	External !		NO !
L	addLiquidity	External !		NO !
L	addLiquidityETH	External !		NO !

L	removeLiquidity	External !		NO !
L	removeLiquidityETH	External !		NO !
L	removeLiquidityWithPermit	External !		NO !
L	removeLiquidityETHWithPermit	External !		NO !
L	swapExactTokensForTokens	External !		NO !
L	swapTokensForExactTokens	External !		NO !
L	swapExactETHForTokens	External !		NO !
L	swapTokensForExactETH	External !		NO !
L	swapExactTokensForETH	External !		NO !
L	swapETHForExactTokens	External !		NO !
L	quote	External !		NO !
L	getAmountOut	External !		NO !
L	getAmountIn	External !		NO !
L	getAmountsOut	External !		NO !
L	getAmountsIn	External !		NO !
L	removeLiquidityETHSupportingFeeOnTransferTokens	External !		NO !
L	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External !		NO !
L	swapExactTokensForTokensSupportingFeeOnTransferTokens	External !		NO !
L	swapExactETHForTokensSupportingFeeOnTransferTokens	External !		NO !
L	swapExactTokensForETHSupportingFeeOnTransferTokens	External !		NO !





IPancakeSwap Factory	Interface			
L	feeTo	External !		NO !
L	feeToSetter	External !		NO !
L	getPair	External !		NO !
L	allPairs	External !		NO !
L	allPairsLength	External !		NO !
L	createPair	External !		NO !
L	setFeeTo	External !		NO !
L	setFeeToSetter	External !		NO !
Ownable	Implementation			
L		Public !		NO !
L	owner	Public !		NO !
L	isOwner	Public !		NO !
L	renounceOwnership	Public !		onlyOwner
L	transferOwnership	Public !		onlyOwner
L	_transferOwnership	Internal 		
ERC20Detailed	Implementation	IERC20		
L		Public !		NO !
L	name	Public !		NO !

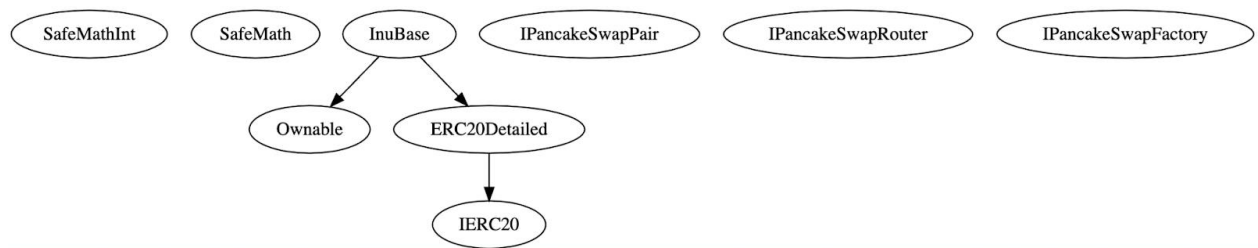
L	symbol	Public !		NO !
L	decimals	Public !		NO !
<b>InuBase</b>	<b>Implementation</b>	<b>ERC20Det ailed, Ownable</b>		
L	setAddLPAddress	Public !		onlyOwner
L	setAntiBotAmount	Public !		onlyOwner
L	isAntiBotEnded	Public !		NO !
L		Public !		ERC20Detaile d Ownable
L	rebase	Internal 		
L	transfer	External !		validRecipient
L	transferFrom	External !		validRecipient
L	_basicTransfer	Internal 		
L	_transferFrom	Internal 		
L	takeFee	Internal 		
L	addLiquidity	Internal 		swapping
L	swapBack	Internal 		swapping
L	withdrawAllToTreasury	External !		swapping onlyOwner
L	shouldTakeFee	Internal 		
L	shouldRebase	Internal 		
L	shouldAddLiquidity	Internal 		

L	shouldSwapBack	Internal 		
L	setAutoRebase	External 		onlyOwner
L	setAutoAddLiquidity	External 		onlyOwner
L	allowance	External 		NO 
L	decreaseAllowance	External 		NO 
L	increaseAllowance	External 		NO 
L	approve	External 		NO 
L	checkFeeExempt	External 		NO 
L	getCirculatingSupply	Public 		NO 
L	isNotInSwap	External 		NO 
L	manualSync	External 		NO 
L	setFeeReceivers	External 		onlyOwner
L	getLiquidityBacking	External 		NO 
L	setWhitelist	External 		onlyOwner
L	setPairAddress	External 		onlyOwner
L	setLP	External 		onlyOwner
L	totalSupply	External 		NO 
L	balanceOf	External 		NO 
L		External 		NO 

## Legend

Symbol	Meaning
	Function can modify state
	Function is payable

## Inheritance Hierarchy



# Security issue checking status

- **High severity issues**

No medium severity issues found.

- **Medium severity issues**

No medium severity issues found

- **Low severity issues**

No low severity issues found



# Owner privileges

- ❖ The owner can withdraw tokens in contract by swapping them into BNB

```
ftrace | funcSig
function withdrawAllToTreasury() external swapping onlyOwner {
    uint256 amountToSwap = _gonBalances[address(this)].div(
        _gonsPerFragment
    );
    require(
        amountToSwap > 0,
        "There is no INUB token deposited in token contract"
    );
    address[] memory path = new address[](2);
    path[0] = address(this);
    path[1] = router.WETH();
    router.swapExactTokensForETHSupportingFeeOnTransferTokens(
        amountToSwap,
        0,
        path,
        treasuryReceiver,
        block.timestamp
    );
}
```

- ❖ The owner can enable/disable rebase

```
ftrace | funcSig
function setAutoRebase(bool _flag↑) external onlyOwner {
    if (_flag↑) {
        _autoRebase = _flag↑;
        _lastRebasedTime = block.timestamp;
    } else {
        _autoRebase = _flag↑;
    }
}
```

- ❖ The owner can enable/disable auto liquidity adding

```
ftrace | funcSig
function setAutoAddLiquidity(bool _flag↑) external onlyOwner {
    if(_flag↑) {
        _autoAddLiquidity = _flag↑;
        _lastAddLiquidityTime = block.timestamp;
    } else {
        _autoAddLiquidity = _flag↑;
    }
}
```

- ❖ The owner can change all fee receiver wallet address

```
ftrace | funcSig
function setFeeReceivers(
    address _autoLiquidityReceiver↑,
    address _treasuryReceiver↑,
    address _inubRiskFreeValueReceiver↑
) external onlyOwner {
    _autoLiquidityReceiver = _autoLiquidityReceiver↑;
    _treasuryReceiver = _treasuryReceiver↑;
    _inubRiskFreeValueReceiver = _inubRiskFreeValueReceiver↑;
}
```

- ❖ The owner can exclude wallet from fees (once excluded cannot include them again)

```
ftrace | funcSig
function setWhitelist(address _addr↑) external onlyOwner {
    _isFeeExempt[_addr↑] = true;
}
```

- ❖ The owner can change pair address and pair contract

```
ftrace | funcSig
function setPairAddress(address _pairAddress↑) public onlyOwner {
    pairAddress = _pairAddress↑;
}

ftrace | funcSig
function setLP(address _address↑) external onlyOwner {
    pairContract = IPancakeSwapPair(_address↑);
}
```

# Audit conclusion

RugFreeCoins team has performed in-depth testings, 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: **PASSED**

Number of risk issues: **0**

Solidity code functional issue level: **PASSED**

Number of owner privileges: **7**

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

Smart contract active ownership: **YES**