Smart Contract Audit Report

The audit was conducted on the **SPOOKY FLOKI** Smart Contract

Smart Contract	**SPKY**
Type Of Utility	ERC20
Platform	BSC, Ethereum Virtual Machine
Chain Id	56
Language	v0.8.17+commit.8df45f5f
Address	0x5746a963c52924ff97c81cb53da7161e366b9b9a

Audit Score

Section	Score
Codebase Security	100%
Codebase Complexity and Practices	95%
Owner Privileges and Control	92%
Overall Score	95.6%

The contract does not present any major security risks.
Key vulnerability concerns: Liquidity Centralization

Branding:

Website Telegram Twitter

Liquidity Lock

Content

Scope of the audit

This Audit Report mainly focuses on the overall security of the **SPOOKY FLOKI** token Smart Contract. This audit was conducted with rigorous attention to the general implementation of the contract and by examining the overall architectural layout of the software implementation. The reliability and correctness of this smart contract's codebase are being assessed.

Security Scope

Identifies security related issues within each contract and the system of contract.

General Code Quality

A full assessment of the code quality and general software architecture patterns and best practices used.

Auditing Methods Used

Rigorous testing of the project has been performed. Detailed code base analysis was conducted, reviewing the smart contract architecture to ensure it is structured and safe.

A detailed, line by line inspection of the codebase was conducted to find any potential security vulnerabilities such as denial of service attacks, race conditions, transaction-ordering dependence, timestamp dependence, and denial of service attacks.

Automated and manual testing was employed that included:
– Analysis of on-chain data security
– Analysis of the code in-depth and detailed, manual review of the code, line-by-line.
– Deployment of the code on an in-house testnet blockchain and running live tests●
– Determining failure preparations and if worst-case scenario protocols are in place
– Analysis of any third-party code use and verifying the overall security of this

Tools Used:
Remix IDE, Ganache, SolHint, VScode, Mythril, Contract Library Hardhat

Assessing Possible Issues

Any issue detected during the conduction of this audit will be categorized under one of 3 severity levels: low, medium, and high.

Low level Severity Issues

Issues that do not pose any serious threat to the functionality of the software.

Medium level Severity issues

Issues that can cause potential problems to the overall health of the software application but that can be fixed without having any breaking changes on the current functionality.

High level Severity issues

Critical issues that affect the smart contract's overall performance and functionality. These issues should be fixed urgently.

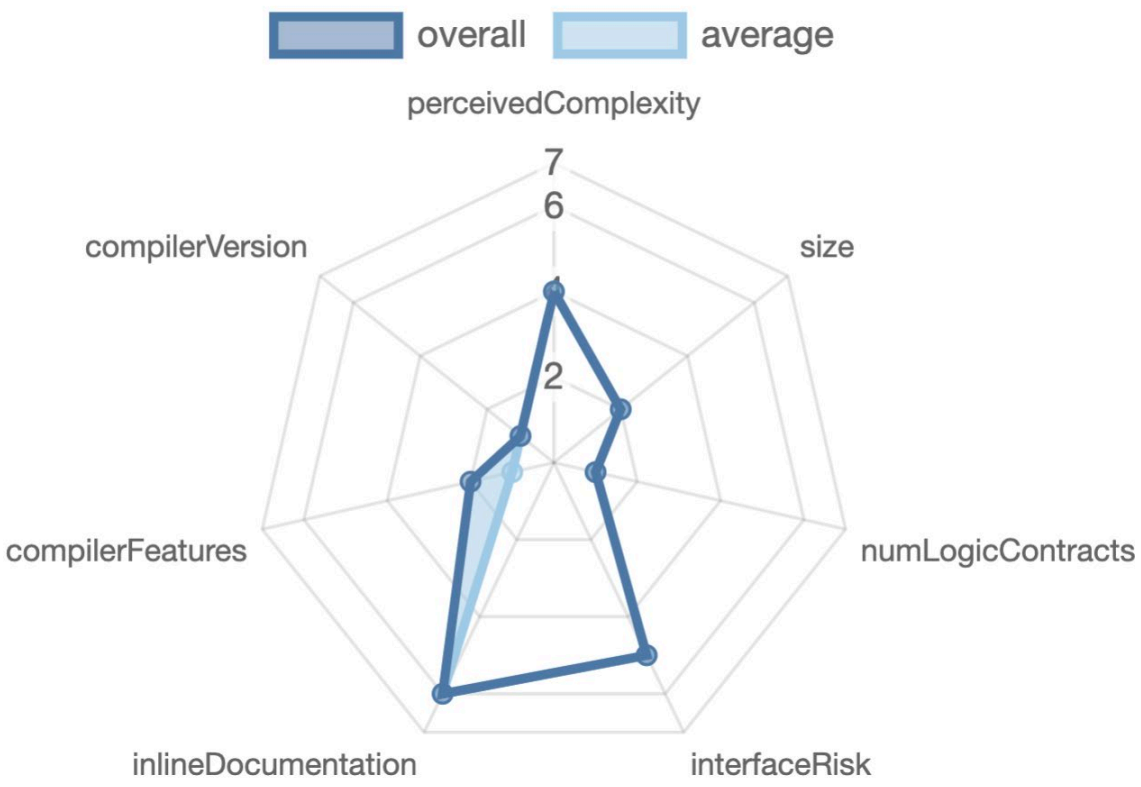
General Issues Report

General issues that were found during manual and automatic assessments

No	Issue Verification	Status
1	Compiler warnings	Passed
2	Reentrancy and Race Conditions.	Passed
3	Possible delays in data delivery.	Passed
4	Oracle calls.	Passed
5	Front running.	Passed
6	DoS with block gas limit.	Passed
7	DoS with Revert.	Passed
8	Timestamp dependence.	Passed
9	Methods execution permissions.	Passed
10	Economy model.	Passed
11	The impact of the exchange rate on the logic.	Passed
12	Private user data leaks.	Passed
13	Scoping and Declarations.	Passed
14	Arithmetic accuracy.	Passed

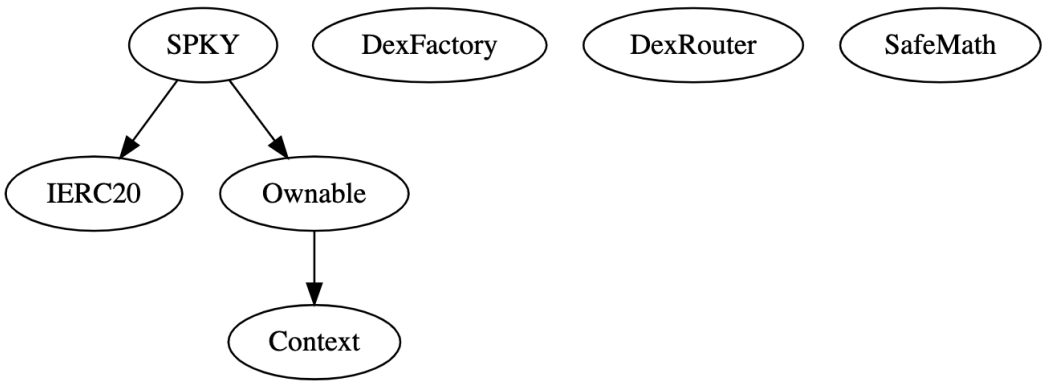
Issues Found

Low Level Severity	Medium Level Severity	High Level Severity
0	0	0



Risk Assessment

Contract Dependency Graphs



Manual Code Inspection

Our developers reviewed, deployed, and manually tested the code of the target contract and its dependencies.

No	Contract	Issues
1	SPKY	4
2	Ownable	None
3	Context	None

Issues Found

Low Level Severity	Medium Level Severity	High Level Severity
1	2	1

Inspections

Contract	SPKY
Address	0x5746A963C52924Ff97C81cb53DA7161e366b9b9A
Issues	4
Notes	BEP-20 Token

Issues

```
430         router.swapExactTokensForETHSupportingFeeOnTransferTokens(
431             amountToSwap,
432             0,
433             path,
434             address(this),
435             block.timestamp
436         );
```

1. Front Running Attack Surface

Line	**430**
Severity	**Medium**
Method	**router.swapExactTokensForETHSupportingFeeOnTransferTokens (uint256 tokenAmount, address _to)**
Description	**Setting the minimum expect output amount for a swap to be 0 can lead to frontrunning attacks that especially if there are high volume transactions involved.**
Notes	**Calculate and set a minimum output amount or limit the max transaction amount to reduce the attack probability.**

```
430         router.swapExactTokensForETHSupportingFeeOnTransferTokens(
431             amountToSwap,
432             0,
433             path,
434             address(this),
435             block.timestamp
436         );
```

2. Swp Time Limit

Line	**435**
Severity	**Low**
Method	**router.swapExactTokensForETHupportingFeeOnTransferTokens**
Description	**Setting the deadline parameter to the current block's timestamp may cause transactions to fail.**
Notes	**Calculate and set a minimum output amount or limit the max transaction amount to reduce the attack probability.**

```
457         router.addLiquidityETH{value : amountBNBLiquidity}(
458             address(this),
459             amountToLiquify,
460             0,
461             0,
462             autoLiquidityReceiver,
463             block.timestamp
464         );
```

3. Centralized Liquidity Receiver

Line	**462**
Severity	**High**
Method	**router.addLiquidityETH**
Description	**All the newly minted liquidity will be sent to the *autoLiqudityReceiver*. Over time this address will hold a significant leverage over the market value of the project**

Notes	**Transfer the ownership of the *autoLiqudityReceiver* address to a mutisign wallets or a DAO structure and ensure full transparency over the actions of that address.**

4. Unnecessary Library library

Line	**169**
Severity	**Low**
Method	`using SafeMath for uint256;`
Description	**The used compiled version has built in arithmetic safety.**
Notes	**The SafeMath library can be removed from the source code of the contract.**

Access Control and Privileges

The contract uses a single-owner access control system for setting contract-specific parameters.

SPKY.sol

Role	Privileges
Owner	`renounceOwnership`, `transferOwnership`, `setisInternal` `setMode` `setWalletLimit` `setTxLimit` `tradingStatus` `openTrading` `setIsFeeExempt` `setIsTxLimitExempt` `fullWhitelist` `setFees` `enable_blacklist` `manage_blacklist` `isAuth` `setPair` `setGas` `renounceBlacklist` `disableBlacklistDONTUSETHIS` `setTakeBuyfee` `setTakeSellfee` `setTakeTransferfee` `setSwapbackSettings` `setFeeReceivers` `rescueToken` `clearStuckBalance`

Restrictions that the owner can impose:

- **Exclude accounts from fess**
- **Set fees**
- **Halt trading**
- **Block addresses from receiving or sending transactions**
- **Limit trading frequency**
- **Limit the number of tokens that a wallet can hold**

Notes

The owner of this contract can censor/restrict parties from accessing this contract's functionality.

Conclusion

The **SPOOKY FLOKI** Smart contracts do not contain any high severity issues!

Audit Score

Section	Score
Codebase Security	100%
Codebase Complexity and Practices	95%
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Overall Score	95.6%

SPOOKY FLOKI has passed the Smart Contract Audit by HedgePay Sdn Bhd

KYC Verifications: N/A

Smart contract Audit completion: 10th Oct 2022. 13:00 pm UTC

https://github.com/HedgePay/audits

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. 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 based on 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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