



TechRate
AUDIT COMPANY

Smart Contract Security Audit

Audit Details



Audited project

Tsuzuki Inu



Deployer address

0x45f828c9cdf410c520ecc96ce6054efba671bfdc



Client contacts:

Tsuzuki Inu team



Blockchain

Ethereum



Project website:

<https://www.tzuki.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 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 Tsuzuki Inu to perform an audit of smart contracts:

<https://etherscan.io/address/0xF527d24391C767B86b8e91385e1cE9C54D230A2B#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

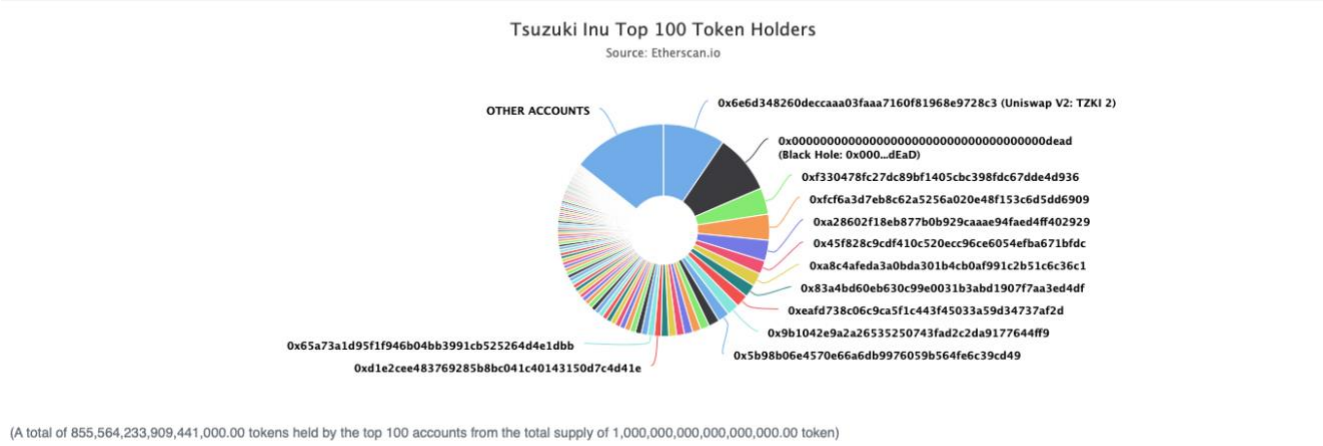
Token contract details for 26.10.2021

Contract name	Tsuzuki Inu
Contract address	0xF527d24391C767B86b8e91385e1cE9C54D230A2B
Total supply	1,000,000,000,000,000,000
Token ticker	TZKI
Decimals	9
Token holders	405
Transactions count	919
Top 100 holders dominance	85.56%
Contract deployer address	0x45f828c9cdf410c520ecc96ce6054efba671bfdc
Contract's current owner address	0x00


Tsuzuki Inu Token Distribution

The top 100 holders collectively own 85.56% (855,564,233,909,441,000.00 Tokens) of Tsuzuki Inu

Token Total Supply: 1,000,000,000,000,000.00 Token | Total Token Holders: 405



Tsuzuki Inu Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	 Uniswap V2: TZKI 2	94,965,865,347,341,600.687988767	9.4966%
2	Black Hole: 0x000...dEaD	90,648,585,310,164,600.163893846	9.0649%
3	0xf330478fc27dc89bf1405cbc398fdc67dde4d936	40,132,916,837,512,800.96859852	4.0133%
4	0xfc6a3d7eb8c62a5256a020e48f153c6d5dd6909	39,749,924,275,447,300.973474333	3.9750%
5	0xa28602f18eb877b0b929caaae94faed4ff402929	31,550,210,857,201,000.513914377	3.1550%
6	0x45f828c9cdf410c520ecc96ce6054efba671bfdc	20,788,845,969,387,000.251795439	2.0789%
7	0xa8c4afeda3a0bda301b4cb0af991c2b51c6c36c1	19,956,001,106,554,400.55297572	1.9956%
8	0x83a4bd60eb630c99e0031b3abd19077aa3ed4df	19,370,501,388,634,300.274374175	1.9371%
9	0xea1d738c06c9ca5f1c443f45033a59d34737af2d	19,237,723,187,009,700.739936339	1.9238%
10	0x9b1042e9a2a26535250743fad2c2da9177644ff9	18,505,460,144,865,000.009730858	1.8505%

Contract functions details

- + Context
 - [Int] _msgSender
- + [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
- + Ownable (Context)
 - [Pub] <Constructor> #
 - [Pub] owner
 - [Pub] renounceOwnership #
 - modifiers: onlyOwner
- + [Int] IUniswapV2Factory
 - [Ext] createPair #
- + [Int] IUniswapV2Router02
 - [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #
 - [Ext] factory
 - [Ext] WETH
 - [Ext] addLiquidityETH (\$)
- + Tsuzukilnu (Context, IERC20, Ownable)
 - [Pub] <Constructor> #
 - [Pub] name
 - [Pub] symbol
 - [Pub] decimals
 - [Pub] totalSupply
 - [Pub] balanceOf
 - [Pub] transfer #
 - [Pub] allowance
 - [Pub] approve #
 - [Pub] transferFrom #
 - [Ext] setCooldownEnabled #
 - modifiers: onlyOwner
 - [Prv] tokenFromReflection
 - [Prv] _approve #
 - [Prv] _transfer #
 - [Prv] swapTokensForEth #

- modifiers: lockTheSwap
- [Prv] sendETHToFee #
- [Ext] openTrading #
 - modifiers: onlyOwner
- [Pub] setBots #
 - modifiers: onlyOwner
- [Pub] delBot #
 - modifiers: onlyOwner
- [Prv] _tokenTransfer #
- [Prv] _transferStandard #
- [Prv] _takeTeam #
- [Prv] _reflectFee #
- [Ext] <Fallback> (\$)
- [Ext] manualswap #
- [Ext] manualsend #
- [Prv] _getValues
- [Prv] _getTValues
- [Prv] _getRValues
- [Prv] _getRate
- [Prv] _getCurrentSupply

(\$) = 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.	Passed
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

No low severity issues found.

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

- Owner can enable cooldown (user to user trading with time offset).

```
function setCooldownEnabled(bool onoff) external onlyOwner() {
    cooldownEnabled = onoff;
}
```

- Owner can open swap trading.

```
function openTrading() external onlyOwner() {
    require(!tradingOpen, "trading is already open");
    IUniswapV2Router02 _uniswapV2Router = IUniswapV2Router02(0x7a250d5630B4cF539739dF2C5dAcb4c659F2488D);
    uniswapV2Router = _uniswapV2Router;
    _approve(address(this), address(uniswapV2Router), _tTotal);
    uniswapV2Pair = IUniswapV2Factory(_uniswapV2Router.factory()).createPair(address(this), _uniswapV2Router.WETH());
    uniswapV2Router.addLiquidityETH(value: address(this).balance)(address(this), balanceOf(address(this)), 0, 0, owner(), block.timestamp);
    swapEnabled = true;
    cooldownEnabled = true;
    _maxTxAmount = 5000000000000000 * 10**9;
    tradingOpen = true;
    IERC20(uniswapV2Pair).approve(address(uniswapV2Router), type(uint).max);
}
```

- Owner can add and remove bots (no transferring between this addresses).

```
function setBots(address[] memory bots_) public onlyOwner {
    for (uint i = 0; i < bots_.length; i++) {
        bots[bots_[i]] = true;
    }
}

function delBot(address notbot) public onlyOwner {
    bots[notbot] = false;
}
```

Conclusion

Smart contracts do not contain high severity issues! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details provided by the team:

<https://www.team.finance/view-coin/0xF527d24391C767B86b8e91385e1cE9C54D230A2B?name=Tsuzuki%20Inu&symbol=TZKI>

Ownership renounce details provided by the team:

<https://etherscan.io/tx/0x45257876a6fa3a25bc0454635f1012b9a0fc0ec54d3332663b526a8f743fbe55>

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.