



Mr.Moon

Smart Contract Security Audit

TechRate
June, 2021

Audit Details

Audited project

Mr.Moon

Deployer address

0xF99CF33F9dcFBEd7bF996a44979335CD4E83C57

Client contacts:

Mr.Moon Team

Blockchain

Binance Smart Chain

Project website:

<https://mrmoon.club/>

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 Mr.Moon to perform an audit of smart contracts:

<https://bscscan.com/address/0xf99cf33f9dcfbede7bf996a44979335cd4e83c57>

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 23.06.2021

Contract name	Mr.Moon
Contract address	0xf99cf33f9dcfbede7bf996a44979335cd4e83c57
Total supply	1,000,000,000,000,000
Token ticker	MRM
Decimals	18
Token holders	4
Transactions count	24
Top 100 holders dominance	100%
Liquidity fee	15
Contract's current owner address	0x000000000000000000000000000000000000A

Contract functions details

- + [Int] IERC20
 - [Ext] totalSupply
 - [Ext] balanceOf
 - [Ext] transfer #
 - [Ext] allowance
 - [Ext] approve #
 - [Ext] transferFrom #
- + [Lib] SafeMath
 - [Int] tryAdd
 - [Int] trySub
 - [Int] tryMul
 - [Int] tryDiv
 - [Int] tryMod
 - [Int] add
 - [Int] sub
 - [Int] mul
 - [Int] div
 - [Int] mod
 - [Int] sub
 - [Int] div
 - [Int] mod
- + Context
 - [Int] _msgSender
 - [Int] _msgData
- + [Lib] Address
 - [Int] isContract
 - [Int] sendValue #
 - [Int] functionCall #
 - [Int] functionCall #
 - [Int] functionCallWithValue #
 - [Int] functionCallWithValue #
 - [Int] functionStaticCall
 - [Int] functionStaticCall
 - [Int] functionDelegateCall #
 - [Int] functionDelegateCall #
 - [Prv] _verifyCallResult
- + Ownable (Context)
 - [Pub] <Constructor> #
 - [Pub] owner
 - [Pub] renounceOwnership #
 - modifiers: onlyOwner
 - [Pub] transferOwnership #
 - modifiers: onlyOwner
- + [Int] IUniswapV2Factory
 - [Ext] feeTo
 - [Ext] feeToSetter
 - [Ext] getPair
 - [Ext] allPairs
 - [Ext] allPairsLength
 - [Ext] createPair #
 - [Ext] setFeeTo #
 - [Ext] setFeeToSetter #

Contract functions details

+ [Int] IUniswapV2Pair

- [Ext] name
 - [Ext] symbol
 - [Ext] decimals
 - [Ext] totalSupply
 - [Ext] balanceOf
 - [Ext] allowance
 - [Ext] approve #
 - [Ext] transfer #
 - [Ext] transferFrom #
 - [Ext] DOMAIN_SEPARATOR
 - [Ext] PERMIT_TYPEHASH
 - [Ext] nonces
 - [Ext] permit #
 - [Ext] MINIMUM_LIQUIDITY
 - [Ext] factory
 - [Ext] token0
 - [Ext] token1
 - [Ext] getReserves
 - [Ext] price0CumulativeLast
 - [Ext] price1CumulativeLast
 - [Ext] kLast
 - [Ext] mint #
 - [Ext] burn #
 - [Ext] swap #
 - [Ext] skim #
 - [Ext] sync #
 - [Ext] initialize #
- ## + [Int] IUniswapV2Router01
- [Ext] factory

- [Ext] WETH

- [Ext] addLiquidity #
- [Ext] addLiquidityETH (\$)
- [Ext] removeLiquidity #
- [Ext] removeLiquidityETH #
- [Ext] removeLiquidityWithPermit #
- [Ext] removeLiquidityETHWithPermit #
- [Ext] swapExactTokensForTokens #
- [Ext] swapTokensForExactTokens #
- [Ext] swapExactETHForTokens (\$)
- [Ext] swapTokensForExactETH #
- [Ext] swapExactTokensForETH #
- [Ext] swapETHForExactTokens (\$)
- [Ext] quote
- [Ext] getAmountOut
- [Ext] getAmountIn
- [Ext] getAmountsOut
- [Ext] getAmountsIn

Contract functions details

+ [Int] IUniswapV2Router02 (IUniswapV2Router01)	- [Pub] tokenFromReflection	- [Pub] isExcludedFromFee
- [Ext]	- [Pub] excludeFromReward #	- [Prv] _approve #
removeLiquidityETHSupportingFeeOnTransferTokens #	- modifiers: onlyOwner	- [Prv] _transfer #
- [Ext]	- [Ext] includeInReward #	- [Prv] swapAndLiquify#
removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #	- modifiers: onlyOwner	- modifiers: lockTheSwap
- [Ext]	- [Prv] _transferBothExcluded	- [Prv] swapTokensForEth #
swapExactTokensForTokensSupportingFeeOnTransferTokens #	- [Prv] addLiquidity #	- [Prv] _tokenTransfer #
- [Ext]	- [Pub] excludeFromFee #	- [Prv] _transferStandard #
swapExactETHForTokensSupportingFeeOnTransferTokens #	- modifiers: onlyOwner	- [Prv] _transferToExcluded #
- [Ext]	- [Pub] includeInFee #	- [Prv] _transferFromExcluded #
swapExactETHForTokensSupportingFeeOnTransferTokens (\$)	- [Ext] setTaxFeePercent #	(\$) = payable function
- [Ext]	- modifiers: onlyOwner	# = non-constant function
swapExactETHForTokensSupportingFeeOnTransferTokens (\$)	- [Ext]	
- [Ext]	setmarketingFeePercent #	
swapExactTokensForETHSupportingFeeOnTransferTokens #	- modifiers: onlyOwner	
+ Mrmoon (Context, IERC20, Ownable)	- [Ext] setLiquidityFeePercent	
- [Pub] <Constructor> #	- [Ext] setMaxTxPercent #	
- [Pub] name	- modifiers: onlyOwner	
- [Pub] symbol	- [Ext] setMaxTxPercent #	
- [Pub] decimals	- modifiers: onlyOwner	
- [Pub] totalSupply	- [Pub]	
- [Pub] balanceOf	setSwapAndLiquifyEnabled#	
- [Pub] transfer #	- modifiers: onlyOwner	
- [Pub] allowance	- [Ext] <Fallback> (\$)	
- [Pub] approve #	- [Prv] _reflectFee #	
- [Pub] transferFrom #	- [Prv] _getValues	
- [Pub] increaseAllowance #	- [Prv] _getTValues	
- [Pub] decreaseAllowance #	- [Prv] _getRValues	
- [Pub]	- [Prv] _getRate	
isExcludedFromReward	- [Prv] _getCurrentSupply	
- [Pub] totalFees	- [Prv] _takeLiquidity #	
- [Pub] deliver #	- [Prv] _takemarketing #	
- [Pub] reflectionFromToken	- [Prv] calculateTaxFee	
	- [Prv] calculatemarketingFee	
	- [Prv] calculateLiquidityFee	
	- [Prv] removeAllFee #	
	- [Prv] restoreAllFee #	

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



Mr.Moon

Fair Battle Royale Game



<https://mrmoon.club/>



https://twitter.com/MrM_token



https://t.me/Mrmoon_official



<https://bscscan.com/token/0xf99cf33f9dcfbede7bf996a44979335cd4e83c57>