

# Audit Report Rocket Raptor

June 2023

SHA256

198b436fd4db6cbe02c5c5bbc5da935773792ddb12900e419733393ff78b9165

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# **Analysis**

CriticalMediumMinor / InformativePass

Severity	Code	Description	Status
•	ST	Stops Transactions	Passed
•	OTUT	Transfers User's Tokens	Passed
•	ELFM	Exceeds Fees Limit	Passed
•	MT	Mints Tokens	Passed
•	ВТ	Burns Tokens	Passed
•	ВС	Blacklists Addresses	Passed



# **Diagnostics**

CriticalMediumMinor / Informative

Severity	Code	Description	Status
•	L02	State Variables could be Declared Constant	Unresolved
•	L04	Conformance to Solidity Naming Conventions	Unresolved
•	L05	Unused State Variable	Unresolved
•	L07	Missing Events Arithmetic	Unresolved
•	L14	Uninitialized Variables in Local Scope	Unresolved
•	L16	Validate Variable Setters	Unresolved
•	L20	Succeeded Transfer Check	Unresolved



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## **Review**

Contract Name	RocketRaptor
Testing Deploy	https://testnet.bscscan.com/address/0xdfbdb49ea5d6c9361dbe1907b7c3db289af7b8da
Symbol	ROCKET
Decimals	18
Total Supply	69,000,000,000

# **Audit Updates**

Initial Audit	26 Jun 2023

### **Source Files**

Filename	SHA256
contracts/RocketRaptor.sol	198b436fd4db6cbe02c5c5bbc5da935773 792ddb12900e419733393ff78b9165



# **Findings Breakdown**



Sev	verity	Unresolved	Acknowledged	Resolved	Other
•	Critical	0	0	0	0
•	Medium	0	0	0	0
	Minor / Informative	7	0	0	0



#### L02 - State Variables could be Declared Constant

Criticality	Minor / Informative
Location	contracts/RocketRaptor.sol#L103,115
Status	Unresolved

#### Description

State variables can be declared as constant using the constant keyword. This means that the value of the state variable cannot be changed after it has been set. Additionally, the constant variables decrease gas consumption of the corresponding transaction.

```
uint256 private timeSinceLastPair = 0
bool public taxesAreLocked
```

#### Recommendation

Constant state variables can be useful when the contract wants to ensure that the value of a state variable cannot be changed by any function in the contract. This can be useful for storing values that are important to the contract's behavior, such as the contract's address or the maximum number of times a certain function can be called. The team is advised to add the constant keyword to state variables that never change.



#### **L04 - Conformance to Solidity Naming Conventions**

Criticality	Minor / Informative
Location	contracts/RocketRaptor.sol#L33,110,111,112,113,114,122,234,269
Status	Unresolved

#### Description

The Solidity style guide is a set of guidelines for writing clean and consistent Solidity code. Adhering to a style guide can help improve the readability and maintainability of the Solidity code, making it easier for others to understand and work with.

The followings are a few key points from the Solidity style guide:

- 1. Use camelCase for function and variable names, with the first letter in lowercase (e.g., myVariable, updateCounter).
- 2. Use PascalCase for contract, struct, and enum names, with the first letter in uppercase (e.g., MyContract, UserStruct, ErrorEnum).
- 3. Use uppercase for constant variables and enums (e.g., MAX\_VALUE, ERROR\_CODE).
- 4. Use indentation to improve readability and structure.
- 5. Use spaces between operators and after commas.
- 6. Use comments to explain the purpose and behavior of the code.
- 7. Keep lines short (around 120 characters) to improve readability.

```
function WETH() external pure returns (address);
uint256 constant private startingSupply = 69_000_000_000
string constant private _name = "Rocket Raptor"
string constant private _symbol = "ROCKET"
uint8 constant private _decimals = 18
uint256 constant private _tTotal = startingSupply *
10**_decimals
bool public _hasLiqBeenAdded = false
address _initializer
bool _antiBlock
bool _antiSnipe
```



#### Recommendation

By following the Solidity naming convention guidelines, the codebase increased the readability, maintainability, and makes it easier to work with.

Find more information on the Solidity documentation

https://docs.soliditylang.org/en/v0.8.17/style-guide.html#naming-convention.



#### L05 - Unused State Variable

Criticality	Minor / Informative
Location	contracts/RocketRaptor.sol#L103
Status	Unresolved

#### Description

An unused state variable is a state variable that is declared in the contract, but is never used in any of the contract's functions. This can happen if the state variable was originally intended to be used, but was later removed or never used.

Unused state variables can create clutter in the contract and make it more difficult to understand and maintain. They can also increase the size of the contract and the cost of deploying and interacting with it.

```
uint256 private timeSinceLastPair = 0
```

#### Recommendation

To avoid creating unused state variables, it's important to carefully consider the state variables that are needed for the contract's functionality, and to remove any that are no longer needed. This can help improve the clarity and efficiency of the contract.



#### **L07 - Missing Events Arithmetic**

Criticality	Minor / Informative
Location	contracts/RocketRaptor.sol#L275
Status	Unresolved

#### Description

Events are a way to record and log information about changes or actions that occur within a contract. They are often used to notify external parties or clients about events that have occurred within the contract, such as the transfer of tokens or the completion of a task.

It's important to carefully design and implement the events in a contract, and to ensure that all required events are included. It's also a good idea to test the contract to ensure that all events are being properly triggered and logged.

```
_maxTxAmount = (_tTotal * percent) / divisor
```

#### Recommendation

By including all required events in the contract and thoroughly testing the contract's functionality, the contract ensures that it performs as intended and does not have any missing events that could cause issues with its arithmetic.



## L14 - Uninitialized Variables in Local Scope

Criticality	Minor / Informative
Location	contracts/RocketRaptor.sol#L238,377,378
Status	Unresolved

#### Description

Using an uninitialized local variable can lead to unpredictable behavior and potentially cause errors in the contract. It's important to always initialize local variables with appropriate values before using them.

```
address router
address constructorLP
bool checked
bool check
```

#### Recommendation

By initializing local variables before using them, the contract ensures that the functions behave as expected and avoid potential issues.



#### L16 - Validate Variable Setters

Criticality	Minor / Informative
Location	contracts/RocketRaptor.sol#L179
Status	Unresolved

#### Description

The contract performs operations on variables that have been configured on user-supplied input. These variables are missing of proper check for the case where a value is zero. This can lead to problems when the contract is executed, as certain actions may not be properly handled when the value is zero.

operator = newOperator

#### Recommendation

By adding the proper check, the contract will not allow the variables to be configured with zero value. This will ensure that the contract can handle all possible input values and avoid unexpected behavior or errors. Hence, it can help to prevent the contract from being exploited or operating unexpectedly.



#### **L20 - Succeeded Transfer Check**

Criticality	Minor / Informative
Location	contracts/RocketRaptor.sol#L365
Status	Unresolved

#### Description

According to the ERC20 specification, the transfer methods should be checked if the result is successful. Otherwise, the contract may wrongly assume that the transfer has been established.

```
TOKEN.transfer(_owner, TOKEN.balanceOf(address(this)))
```

#### Recommendation

The contract should check if the result of the transfer methods is successful. The team is advised to check the SafeERC20 library from the Openzeppelin library.



# **Functions Analysis**

Contract	Туре	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20	Interface			
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
IFactoryV2	Interface			
	getPair	External		-
	createPair	External	✓	-
IV2Pair	Interface			
	factory	External		-



	getReserves	External		-
	sync	External	✓	-
IRouter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidityETH	External	Payable	-
	addLiquidity	External	✓	-
	swapExactETHForTokens	External	Payable	-
	getAmountsOut	External		-
	getAmountsIn	External		-
IRouter02	Interface	IRouter01		
	swapExactTokensForETHSupportingFee OnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFee OnTransferTokens	External	Payable	-
	swapExactTokensForTokensSupporting FeeOnTransferTokens	External	✓	-
	swapExactTokensForTokens	External	✓	-
Initializer	Interface			
	setLaunch	External	✓	-
	getConfig	External	✓	-
	setLpPair	External	✓	-
	checkUser	External	✓	-



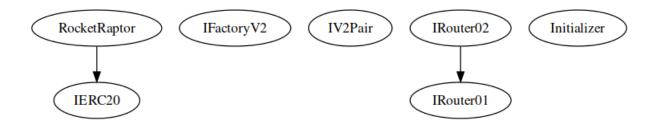
	setProtections	External	✓	-
	removeSniper	External	1	-
RocketRaptor	Implementation	IERC20		
		Public	Payable	-
		External	Payable	-
	transferOwner	External	1	onlyOwner
	renounceOwnership	External	1	onlyOwner
	setOperator	Public	1	-
	renounceOriginalDeployer	External	1	-
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	allowance	External		-
	balanceOf	Public		-
	transfer	Public	1	-
	approve	External	1	-
	_approve	Internal	1	
	approveContractContingency	External	<b>√</b>	onlyOwner
	transferFrom	External	✓	-
	setInitializer	Public	✓	onlyOwner



isExcludedFromLimits	External		-
setExcludedFromLimits	External	✓	onlyOwner
isExcludedFromProtection	External		-
setExcludedFromProtection	External	✓	onlyOwner
getCirculatingSupply	Public		-
removeSniper	External	✓	onlyOwner
setProtectionSettings	External	✓	onlyOwner
setMaxTxPercent	External	✓	onlyOwner
getMaxTX	External		-
excludePresaleAddresses	External	✓	onlyOwner
_hasLimits	Internal		
_transfer	Internal	✓	
_checkLiquidityAdd	Internal	✓	
enableTrading	Public	✓	onlyOwner
sweepBalance	External	✓	onlyOwner
sweepExternalTokens	External	✓	onlyOwner
multiSendTokens	External	✓	onlyOwner
finalizeTransfer	Internal	✓	

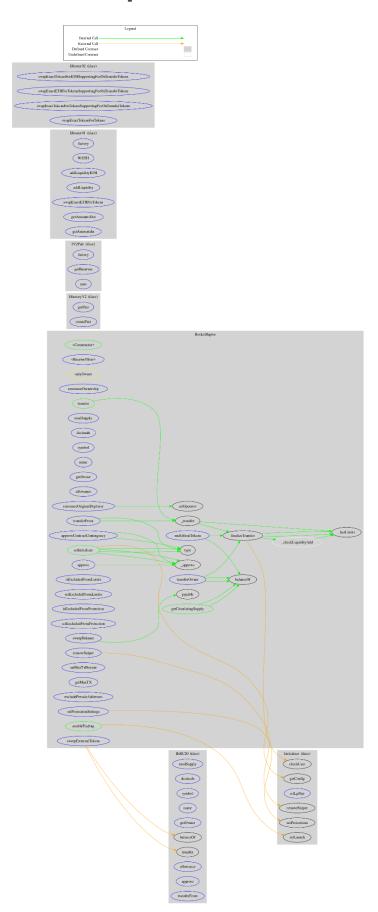


# **Inheritance Graph**





## Flow Graph





## **Summary**

Rocket Raptor contract implements a token mechanism. This audit investigates security issues, business logic concerns and potential improvements. Rocket Raptor is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions.



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Cyberscope is one of the leading smart contract audit firms in the crypto space and has built a high-profile network of clients and partners.

