



# expelee

A Secure Place For Web3

## **SMART CONTRACT AUDIT OF**

## **LOTTERY-X**



**Contract Address** 

0xe8E47107af4c4985133907f20bAa9D0E56d1c404

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# **Audit Summary**

Expelee team has performed a line-by-line manual analysis and automated review of the smart contract. The smart contract was analysed mainly for common smart contract vulnerabilities, exploits, and manipulation hacks. According to the smart contract audit:

**Audit Result: PASSED** 

**Ownership: NOT RENOUNCED** 

**KYC Verification: NOT DONE** 

Audit Date: 23/08/2022

**Audit Team: EXPELEE** 

Be aware that smart contracts deployed on the blockchain aren't resistant to internal exploit, external vulnerability, or hack. For a detailed understanding of risk severity, source code vulnerability, functional hack, and audit disclaimer, kindly refer to the audit.

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## **DISCLAMER**

All the content provided in this document is for general information only and should not be used as financial advice or a reason to buy any investment. Team provides no guarantees against the sale of team tokens or the removal of liquidity by the project audited in this document.

Always Do your own research and protect yourselves from being scammed. The Expelee team has audited this project for general information and only expresses their opinion based on similar projects and checks from popular diagnostic tools.

Under no circumstances did Expelee receive a payment to manipulate those results or change the awarding badge that we will be adding in our website. Always Do your own research and protect yourselves from scams.

This document should not be presented as a reason to buy or not buy any particular token. The Expelee team disclaims any liability for the resulting losses.

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## **Contract Review**

Contract Name	CoinManufactory
Compiler Version	v0.8.12+commit.f00d7308
Optimization	No with 200 runs
License	default license
Explorer	https://bscscan.com/address/0xe8E47 107af4c4985133907f20bAa9D0E56d1c4 04#code
Symbol	RYX
Decimals	18
Total Supply	13,000,000,000
Domain	www.lottery-X.com

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# **Project Review**

**Token Name: LOTTERY-X** 

Web Site: www.lottery-X.com

Twitter: @x\_lottery Twitter

Telegram: https://t.me/LotteryXXX

**Contract Address:** 

0xe8E47107af4c4985133907f20bAa9D0E56d1c404

**Platform: Binance Smart Chain** 

Token Type: BEP 20

Language: SOLIDITY

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## **Audit Methodology**

The scope of this report is to audit the smart contract source code. We have scanned the contract and reviewed the project for common vulnerabilities, exploits, hacks, and back-doors. Below is the list of commonly known smart contract vulnerabilities, exploits, and hacks:

### Category

Smart Contract
Vulnerabilities

- Unhandled Exceptions
- Transaction Order Dependency
- Integer Overflow
- Unrestricted Action
- Incorrect Inheritance Order
- Typographical Errors
- Requirement Violation

Source Code Review

- Gas Limit and Loops
- Deployment Consistency
- Repository Consistency
- Data Consistency
- Token Supply Manipulation

Functional Assessment

- Operations Trail & Event Generation
- Assets Manipulation
- Liquidity Access

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# **Vulnerability Checklist**

Νō	Description.	Result
1	Compiler warnings.	Passed
2	Race conditions and Re-entrancy. Cross-function raceconditions.	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.	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 Zeppelin module.	Passed
21	Fallback function security.	Passed

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## **Manual Audit**

- Low-Risk
- 2 low-risk code issues found
  - Medium-Risk
- ●1 medium-risk code issues found
  - High-Risk
  - 0 high-risk code issues found

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## **Audit Summary**

Compiled with solc

Number of lines: 1710 (+ 0 in dependencies, + 0 in tests)

Number of assembly lines: 0

Number of contracts: 12 (+ 0 in dependencies, + 0 tests)

Number of optimization issues: 15 Number of informational issues: 48

Number of low issues: 2 Number of medium issues: 1 Number of high issues: 0

FRCs:	ERC2612,	FRC20

+	# functions	ERCS	+   ERC20 info	Complex code	+   Features
++   Address	11	+ 	+ I	+   No	++   Send ETH
			İ		Delegatecall
1					Assembly
IUniswapV2Factory	8			No l	
IUniswapV2Pair	26	ERC20,ERC2612	No Minting	No l	
			Approve Race Cond.		l l
IUniswapV2Router02	24		l	No	Receive ETH
CoinManufactory	71	ERC20	No Minting	No l	Receive ETH
			Approve Race Cond.		Send ETH
1			l e	<u> </u>	

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#### Medium-risk

#### 1) Functions that send Ether to arbitrary destinations

Unprotected call to a function sending Ether to an arbitrary address.

```
function swapETHForTokens(uint256 amount) private {
    // generate the uniswap pair path of token -> weth
    address[] memory path = new address[](2);
    path[0] = uniswapV2Router.WETH();
    path[1] = address(this);

    // make the swap
    uniswapV2Router.swapExactETHForTokensSupportingFeeOnTransferTokens{
        value: amount
    }(
        0, // accept any amount of Tokens
        path,
        deadAddress, // Burn address
        block.timestamp + 300
    );

    emit SwapETHForTokens(amount, path);
}
```

#### Recommendation

Ensure that an arbitrary user cannot withdraw unauthorized funds.

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#### 2) Divide before Multiply

Solidity integer division might truncate. As a result, performing multiplication before division can sometimes avoid loss of precision.

```
CoinManufactory.constructor(string,string,uint256,uint8,address[5],uint256[5]) (sample.sol#1312-
1366) performs a multiplication on the result of a division:
    -minimumTokensBeforeSwap = ((totalSupply_ * 10 ** decimals_) / 10000) * 2 (sample.sol#1349)
CoinManufactory.swapTokens(uint256) (sample.sol#1571-1609) performs a multiplication on the result of a division:
    -liquidityBalance = (transferredBalance * ((_liquidityPoolFee * 10) / 2)) /
((_combinedLiquidityFee * 10) - ((_liquidityPoolFee * 10) / 2)) (sample.sol#1598-1600)
```

#### Recommendation

Consider ordering multiplication before division.

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#### 3) Reentrancy vulnerabilities.

Detection of the reentrancy bug.

#### Recommendation

Apply the check-effects-interactions pattern.

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## Important Points To Consider

Can Take Back Ownership	Not detected
Owner Change Balance	Not detected
Blacklist	Not detected
Modify Fees	Detected
Proxy	Not detected
Whitelisted	Not detected
Anti Whale	Detected
Trading Cooldown	Not detected
Transfer Pausable	Not detected
Cannot Sell All	Not detected
Hidden Owner	Not detected
Creator Address	0x08F8f91FB864BB63D9fc9c99E9c4b58B654F9160
Creator Balance	13,000,000,000 RYX
Owner Address	0x08F8f91FB864BB63D9fc9c99E9c4b58B654F9160
Mint	Not detected

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## **About Expelee**

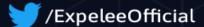
Expelee is a community driven organisation dedicated to fostering an antirug movement. We're here to keep investment safe from fraudsters. We've encountered several rug pulls and know how it feels to be duped, which is why we don't want anybody else to go through the same experience. We are here to raise awareness through our services so that the future of cryptocurrency can be rug-free.

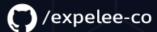
The auditing process focuses to the following considerations with collaboration of an expert team:

- Functionality test of the Smart Contract to determine if proper logic has been followed throughout the whole process.
- Manually detailed examination of the code line by line by experts.
- Live test by multiple clients using Test net.
- Analysing failure preparations to check how the Smart
- Contract performs in case of any bugs and vulnerabilities.
- Checking whether all the libraries used in the code are on the latest version.
- Analysing the security of the on-chain data.

#### Social Media







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