



MAZE

# Smart Contract Audit Report

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# AUDITED DETAILS

## Audited Project

Project name	Token ticker	Blockchain
MAZE	MAZE	Binance Smart Chain

## Addresses

Contract address	0x955d76f9dd0da70b64531777d1b1e55668d1a9c4
Contract deployer address	0x1D83BCd3102AF380b89273ae05098929032f9b47

## Project Website

<https://www.mazegamefi.com/>

## Codebase

<https://bscscan.com/address/0x955d76f9dd0da70b64531777d1b1e55668d1a9c4#code>

# SUMMARY

Welcome to our MAZE METAVERSE. Have you ever imagined being in a maze and adventuring in it? Become a real adventurer, use magic, and explore the labyrinth in an immersive way. Not only can we do it, but we do it with the most advanced VR technology. Our vision is to turn those fantasies and fears from our childhood into real life. We will build a metaverse game platform through advanced VR technology. Each VR game on the forum will bring users an authentic experience in different scenarios. Traveling in space, fighting with animals in the forest, exploring the ocean, surviving in the desert.....Imagination is infinite. MAZE is the first work. It is a decentralized NFT collection and battle game built on Binance Smart Chain.

## Contract Summary

### Documentation Quality

MAZE provides a very good documentation with standard of solidity base code.

- The technical description is provided clearly and structured and also don't have any high risk issue.

### Code Quality

The Overall quality of the basecode is standard.

- Standard solidity basecode and rules are already followed by MAZE with the discovery of several low issues.

### Test Coverage

Test coverage of the project is 100% ( Through Codebase )

## Audit Findings Summary

- SWC-100 SWC-108 | Explicitly define visibility for all state variables on lines 255, 257, 258, 259, 260, 261, 262, 265, 266 and 267.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 6.

## CONCLUSION

We have audited the MAZE project released on March 2022 to discover issues and identify potential security vulnerabilities in MAZE Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

The security audit report provides satisfactory results with low-risk issues.

The issues found in the MAZE smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issues are arithmetic operation issues, a floating pragma is set, and a state variable visibility is not set. State variable visibility is not set. It is best practice to set the visibility of state variables explicitly. The default visibility for "\_decimals" is internal. Other possible visibility settings are public and private. The current pragma Solidity directive is `">=0.8.0"`. Specifying a fixed compiler version is recommended to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

# AUDIT RESULT

Article	Category	Description	Result
Default Visibility	SWC-100 SWC-108	Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously.	<b>ISSUE FOUND</b>
Integer Overflow and Underflow	SWC-101	If unchecked math is used, all math operations should be safe from overflows and underflows.	<b>PASS</b>
Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.	<b>PASS</b>
Floating Pragma	SWC-103	Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly.	<b>ISSUE FOUND</b>
Unchecked Call Return Value	SWC-104	The return value of a message call should be checked.	<b>PASS</b>
Unprotected Ether Withdrawal	SWC-105	Due to missing or insufficient access controls, malicious parties can withdraw from the contract.	<b>PASS</b>
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.	<b>PASS</b>
Reentrancy	SWC-107	Check effect interaction pattern should be followed if the code performs recursive call.	<b>PASS</b>
Uninitialized Storage Pointer	SWC-109	Uninitialized local storage variables can point to unexpected storage locations in the contract.	<b>PASS</b>
Assert Violation	SWC-110 SWC-123	Properly functioning code should never reach a failing assert statement.	<b>PASS</b>
Deprecated Solidity Functions	SWC-111	Deprecated built-in functions should never be used.	<b>PASS</b>
Delegate call to Untrusted Callee	SWC-112	Delegatecalls should only be allowed to trusted addresses.	<b>PASS</b>

DoS (Denial of Service)	SWC-113 SWC-128	Execution of the code should never be blocked by a specific contract state unless required.	PASS
Race Conditions	SWC-114	Race Conditions and Transactions Order Dependency should not be possible.	PASS
Authorization through tx.origin	SWC-115	tx.origin should not be used for authorization.	PASS
Block values as a proxy for time	SWC-116	Block numbers should not be used for time calculations.	PASS
Signature Unique ID	SWC-117 SWC-121 SWC-122	Signed messages should always have a unique id. A transaction hash should not be used as a unique id.	PASS
Incorrect Constructor Name	SWC-118	Constructors are special functions that are called only once during the contract creation.	PASS
Shadowing State Variable	SWC-119	State variables should not be shadowed.	PASS
Weak Sources of Randomness	SWC-120	Random values should never be generated from Chain Attributes or be predictable.	PASS
Write to Arbitrary Storage Location	SWC-124	The contract is responsible for ensuring that only authorized user or contract accounts may write to sensitive storage locations.	PASS
Incorrect Inheritance Order	SWC-125	When inheriting multiple contracts, especially if they have identical functions, a developer should carefully specify inheritance in the correct order. The rule of thumb is to inherit contracts from more /general/ to more /specific/.	PASS
Insufficient Gas Griefing	SWC-126	Insufficient gas griefing attacks can be performed on contracts which accept data and use it in a sub-call on another contract.	PASS
Arbitrary Jump Function	SWC-127	As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value.	PASS

<b>Typographical Error</b>	<b>SWC-129</b>	A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable.	<b>PASS</b>
<b>Override control character</b>	<b>SWC-130</b>	Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract.	<b>PASS</b>
<b>Unused variables</b>	<b>SWC-131 SWC-135</b>	Unused variables are allowed in Solidity and they do not pose a direct security issue.	<b>PASS</b>
<b>Unexpected Ether balance</b>	<b>SWC-132</b>	Contracts can behave erroneously when they strictly assume a specific Ether balance.	<b>PASS</b>
<b>Hash Collisions Variable</b>	<b>SWC-133</b>	Using <code>abi.encodePacked()</code> with multiple variable length arguments can, in certain situations, lead to a hash collision.	<b>PASS</b>
<b>Hardcoded gas amount</b>	<b>SWC-134</b>	The <code>transfer()</code> and <code>send()</code> functions forward a fixed amount of 2300 gas.	<b>PASS</b>
<b>Unencrypted Private Data</b>	<b>SWC-136</b>	It is a common misconception that private type variables cannot be read.	<b>PASS</b>





## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 6

### low SEVERITY

The current pragma Solidity directive is `">=0.8.0"`. It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

### Source File

- MAZEToken.sol

### Locations

```
5 // SPDX-License-Identifier: GPL-3.0-or-later
6 pragma solidity >=0.8.0;
7 library SafeMath {
8 /**
9  * @dev Returns the addition of two unsigned integers, reverting on
10
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 255

### low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "\_decimals" is internal. Other possible visibility settings are public and private.

### Source File

- MAZEToken.sol

### Locations

```
254 string constant _symbol = 'MAZE';
255 uint8 immutable _decimals = 18;
256
257 address _pancakeAddress;
258 address _teama;
259
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 257

### low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "\_pancakeAddress" is internal. Other possible visibility settings are public and private.

### Source File

- MAZEToken.sol

### Locations

```
256  
257 address _pancakeAddress;  
258 address _teama;  
259 address _teamb;  
260 address _teamc;  
261
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 258

### low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "\_teama" is internal. Other possible visibility settings are public and private.

### Source File

- MAZEToken.sol

### Locations

```
257 address _pancakeAddress;  
258 address _teama;  
259 address _teamb;  
260 address _teamc;  
261 address _teamd;  
262
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 259

### low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "\_teamb" is internal. Other possible visibility settings are public and private.

### Source File

- MAZEToken.sol

### Locations

```
258 address _teama;  
259 address _teamb;  
260 address _teamc;  
261 address _teamd;  
262 uint256 _totalsupply;  
263
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 260

### low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "\_teamc" is internal. Other possible visibility settings are public and private.

### Source File

- MAZEToken.sol

### Locations

```
259 address _teamb;  
260 address _teamc;  
261 address _teamd;  
262 uint256 _totalsupply;  
263  
264
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 261

### low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "\_teamd" is internal. Other possible visibility settings are public and private.

### Source File

- MAZEToken.sol

### Locations

```
260 address _teamc;  
261 address _teamd;  
262 uint256 _totalsupply;  
263  
264 mapping (address => mapping (address => uint256)) private _allowances;  
265
```



## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 262

### low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "\_totalsupply" is internal. Other possible visibility settings are public and private.

### Source File

- MAZEToken.sol

### Locations

```
261 address _teamd;  
262 uint256 _totalsupply;  
263  
264 mapping (address => mapping (address => uint256)) private _allowances;  
265 mapping(address=>bool) _isExcluded;  
266
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 265

### low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "\_isExcluded" is internal. Other possible visibility settings are public and private.

### Source File

- MAZEToken.sol

### Locations

```
264 mapping (address => mapping (address => uint256)) private _allowances;  
265 mapping(address=>bool) _isExcluded;  
266 mapping(address=>bool) _banneduser;  
267 mapping(address=>uint256) _balances;  
268  
269
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 266

### low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "\_banneduser" is internal. Other possible visibility settings are public and private.

### Source File

- MAZEToken.sol

### Locations

```
265 mapping(address=>bool) _isExcluded;  
266 mapping(address=>bool) _banneduser;  
267 mapping(address=>uint256) _balances;  
268  
269 /**  
270
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 267

### low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "\_balances" is internal. Other possible visibility settings are public and private.

### Source File

- MAZEToken.sol

### Locations

```
266 mapping(address=>bool) _banneduser;  
267 mapping(address=>uint256) _balances;  
268  
269 /**  
270  * @dev Emitted when `value` tokens are moved from one account (`from`) to  
271
```

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This is a limited report on our findings based on our analysis, in accordance with good industry practice as of 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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