



ROBO INU

Smart Contract Audit Report

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AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain
ROBO INU	RBIF	Ethereum

Addresses

Contract address	0x7b32e70e8d73ac87c1b342e063528b2930b15ceb
Contract deployer address	0xa116abd1B09c0b32B60260E2a65A3063AFf78B75

Project Website

<https://t.me/metagochi>

Codebase

<https://etherscan.io/address/0x7b32e70e8d73ac87c1b342e063528b2930b15ceb#code>

SUMMARY

ROBO INU FINANCE is one of the many financial projects being spearheaded by ROBO GLOBAL INVESTMENT PTE LTD. Beyond the individuals, ROBO GLOBAL INVESTMENT aspires to create an open ecosystem where anyone, including you, can gain financial freedom. ROBO INU FINANCE leverages on blockchain technology to enhance the lives of individuals and business operations.

| Contract Summary

Documentation Quality

ROBO INU 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 ROBO INU 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 577.
- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 55, 65, 76, 77, 86, 94, 100, 105, 110, 115, 120, 131, 143, 155, 546, 546, 546, 546, 547, 547, 573, 573, 573, 573, 574, 574, 574, 574, 575, 575, 575, 575, 721, 723, 945, 964, 970, 976, 1112, 1112, 1112, 1112, 1134, 1134, 1134, 1134 and 723.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 18.
- SWC-110 SWC-123 | It is recommended to use of revert(), assert(), and require() in Solidity, and the new REVERT opcode in the EVM on lines 722, 723, 723, 799, 800, 946, 946, 947 and 948.

CONCLUSION

We have audited the ROBO INU project released on November 2022 to discover issues and identify potential security vulnerabilities in ROBO INU 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 a satisfactory result with some low-risk issues.

The issues found in the ROBO INU 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 found are some arithmetic operation issues, a floating pragma is set, a state variable visibility is not set, and out-of-bounds array access which the index access expression can cause an exception in case of the use of an invalid array index value.

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Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.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

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 grieving 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

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

SMART CONTRACT ANALYSIS

Started	Sunday Nov 07 2021 10:40:50 GMT+0000 (Coordinated Universal Time)
Finished	Monday Nov 08 2021 14:29:12 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	Token.sol

Detected Issues

ID	Title	Severity	Status
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "%" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "%" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "%" DISCOVERED	low	acknowledged

SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "%" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "++" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "++" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 55

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
54  unchecked {  
55    uint256 c = a + b;  
56    if (c < a) return (false, 0);  
57    return (true, c);  
58  }  
59
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 65

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
64   if (b > a) return (false, 0);
65   return (true, a - b);
66   }
67   }
68
69
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 76

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
75  if (a == 0) return (true, 0);
76  uint256 c = a * b;
77  if (c / a != b) return (false, 0);
78  return (true, c);
79  }
80
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 77

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
76  uint256 c = a * b;  
77  if (c / a != b) return (false, 0);  
78  return (true, c);  
79  }  
80  }  
81
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 86

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
85     if (b == 0) return (false, 0);
86     return (true, a / b);
87   }
88 }
89
90
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 94

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
93   if (b == 0) return (false, 0);
94   return (true, a % b);
95   }
96   }
97
98
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 100

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
99  function add(uint256 a, uint256 b) internal pure returns (uint256) {  
100      return a + b;  
101  }  
102  
103  
104
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 105

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
104     function sub(uint256 a, uint256 b) internal pure returns (uint256) {  
105         return a - b;  
106     }  
107  
108  
109
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 110

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
109     function mul(uint256 a, uint256 b) internal pure returns (uint256) {
110         return a * b;
111     }
112
113
114
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 115

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
114     function div(uint256 a, uint256 b) internal pure returns (uint256) {  
115         return a / b;  
116     }  
117  
118  
119
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 120

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
119     function mod(uint256 a, uint256 b) internal pure returns (uint256) {  
120         return a % b;  
121     }  
122  
123  
124
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 131

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
130     require(b <= a, errorMessage);  
131     return a - b;  
132   }  
133   }  
134  
135
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 143

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
142     require(b > 0, errorMessage);
143     return a / b;
144 }
145 }
146
147
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 155

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
154     require(b > 0, errorMessage);  
155     return a % b;  
156   }  
157 }  
158 }  
159
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 546

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
545 uint256 private constant MAX = ~uint256(0);
546 uint256 private _tTotal = 1000000000000 * 10**6 * 10**9;
547 uint256 private _rTotal = (MAX - (MAX % _tTotal));
548 uint256 private _tFeeTotal;
549
550
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 546

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
545 uint256 private constant MAX = ~uint256(0);
546 uint256 private _tTotal = 1000000000000 * 10**6 * 10**9;
547 uint256 private _rTotal = (MAX - (MAX % _tTotal));
548 uint256 private _tFeeTotal;
549
550
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 546

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
545  uint256 private constant MAX = ~uint256(0);
546  uint256 private _tTotal = 1000000000000 * 10**6 * 10**9;
547  uint256 private _rTotal = (MAX - (MAX % _tTotal));
548  uint256 private _tFeeTotal;
549
550
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 546

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
545  uint256 private constant MAX = ~uint256(0);
546  uint256 private _tTotal = 1000000000000 * 10**6 * 10**9;
547  uint256 private _rTotal = (MAX - (MAX % _tTotal));
548  uint256 private _tFeeTotal;
549
550
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 547

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
546  uint256 private _tTotal = 1000000000000 * 10**6 * 10**9;  
547  uint256 private _rTotal = (MAX - (MAX % _tTotal));  
548  uint256 private _tFeeTotal;  
549  
550  string private _name = "ROBO INU";  
551
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 547

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
546 uint256 private _tTotal = 1000000000000 * 10**6 * 10**9;  
547 uint256 private _rTotal = (MAX - (MAX % _tTotal));  
548 uint256 private _tFeeTotal;  
549  
550 string private _name = "ROBO INU";  
551
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 573

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
572
573  uint256 public _maxTxAmount = 300000000 * 10**6 * 10**9;
574  uint256 private numTokensSellToAddToLiquidity = 20000000 * 10**6 * 10**9;
575  uint256 public _maxTokenHolder = 2000000000 * 10**6 * 10**9;
576
577
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 573

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
572
573  uint256 public _maxTxAmount = 300000000 * 10**6 * 10**9;
574  uint256 private numTokensSellToAddToLiquidity = 20000000 * 10**6 * 10**9;
575  uint256 public _maxTokenHolder = 2000000000 * 10**6 * 10**9;
576
577
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 573

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

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572
573  uint256 public _maxTxAmount = 300000000 * 10**6 * 10**9;
574  uint256 private numTokensSellToAddToLiquidity = 20000000 * 10**6 * 10**9;
575  uint256 public _maxTokenHolder = 2000000000 * 10**6 * 10**9;
576
577
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 573

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

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572
573  uint256 public _maxTxAmount = 300000000 * 10**6 * 10**9;
574  uint256 private numTokensSellToAddToLiquidity = 20000000 * 10**6 * 10**9;
575  uint256 public _maxTokenHolder = 2000000000 * 10**6 * 10**9;
576
577
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 574

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
573  uint256 public _maxTxAmount = 300000000 * 10**6 * 10**9;
574  uint256 private numTokensSellToAddToLiquidity = 20000000 * 10**6 * 10**9;
575  uint256 public _maxTokenHolder = 2000000000 * 10**6 * 10**9;
576
577  bool inSwapAndLiquify;
578
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 574

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
573  uint256 public _maxTxAmount = 300000000 * 10**6 * 10**9;
574  uint256 private numTokensSellToAddToLiquidity = 20000000 * 10**6 * 10**9;
575  uint256 public _maxTokenHolder = 2000000000 * 10**6 * 10**9;
576
577  bool inSwapAndLiquify;
578
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 574

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
573  uint256 public _maxTxAmount = 300000000 * 10**6 * 10**9;  
574  uint256 private numTokensSellToAddToLiquidity = 20000000 * 10**6 * 10**9;  
575  uint256 public _maxTokenHolder = 2000000000 * 10**6 * 10**9;  
576  
577  bool inSwapAndLiquify;  
578
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 574

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This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
573  uint256 public _maxTxAmount = 300000000 * 10**6 * 10**9;
574  uint256 private numTokensSellToAddToLiquidity = 20000000 * 10**6 * 10**9;
575  uint256 public _maxTokenHolder = 2000000000 * 10**6 * 10**9;
576
577  bool inSwapAndLiquify;
578
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 575

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
574  uint256 private numTokensSellToAddToLiquidity = 20000000 * 10**6 * 10**9;
575  uint256 public _maxTokenHolder = 20000000000 * 10**6 * 10**9;
576
577  bool inSwapAndLiquify;
578  bool public swapAndLiquifyEnabled = false;
579
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 575

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
574  uint256 private numTokensSellToAddToLiquidity = 20000000 * 10**6 * 10**9;
575  uint256 public _maxTokenHolder = 20000000000 * 10**6 * 10**9;
576
577  bool inSwapAndLiquify;
578  bool public swapAndLiquifyEnabled = false;
579
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 575

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
574  uint256 private numTokensSellToAddToLiquidity = 20000000 * 10**6 * 10**9;  
575  uint256 public _maxTokenHolder = 20000000000 * 10**6 * 10**9;  
576  
577  bool inSwapAndLiquify;  
578  bool public swapAndLiquifyEnabled = false;  
579
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 575

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
574 uint256 private numTokensSellToAddToLiquidity = 20000000 * 10**6 * 10**9;  
575 uint256 public _maxTokenHolder = 20000000000 * 10**6 * 10**9;  
576  
577 bool inSwapAndLiquify;  
578 bool public swapAndLiquifyEnabled = false;  
579
```

SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 721

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
720     require(_excluded.length < 20, "Excluded list too big");
721     for (uint256 i = 0; i < _excluded.length; i++) {
722         if (_excluded[i] == account) {
723             _excluded[i] = _excluded[_excluded.length - 1];
724             _tOwned[account] = 0;
725         }
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 723

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
722     if (_excluded[i] == account) {  
723         _excluded[i] = _excluded[_excluded.length - 1];  
724         _tOwned[account] = 0;  
725         _isExcluded[account] = false;  
726         _excluded.pop();  
727     }
```

SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 945

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
944  uint256 tSupply = _tTotal;
945  for (uint256 i = 0; i < _excluded.length; i++) {
946    if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return
    (_rTotal, _tTotal);
947    rSupply = rSupply.sub(_rOwned[_excluded[i]]);
948    tSupply = tSupply.sub(_tOwned[_excluded[i]]);
949
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 964

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
963     return _amount.mul(_taxFee).div(  
964         10**2  
965     );  
966 }  
967  
968
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 970

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
969     return _amount.mul(_liquidityFee).div(  
970         10**2  
971     );  
972 }  
973  
974
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 976

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
975     return _amount.mul(_marketingDivisor).div(  
976         10**2  
977     );  
978 }  
979  
980
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 1112

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
1111
1112  _maxTxAmount = 10000000000 * 10**6 * 10**9;
1113  }
1114
1115  function goLive() external onlyOwner {
1116
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 1112

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
1111
1112  _maxTxAmount = 10000000000 * 10**6 * 10**9;
1113  }
1114
1115  function goLive() external onlyOwner {
1116
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 1112

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This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
1111
1112   _maxTxAmount = 10000000000 * 10**6 * 10**9;
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1115   function goLive() external onlyOwner {
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```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 1112

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Source File

- Token.sol

Locations

```
1111
1112   _maxTxAmount = 10000000000 * 10**6 * 10**9;
1113   }
1114
1115   function goLive() external onlyOwner {
1116
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 1134

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
1133
1134   _maxTxAmount = 3000000000 * 10**6 * 10**9;
1135   }
1136
1137   }
1138
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 1134

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
1133
1134  _maxTxAmount = 3000000000 * 10**6 * 10**9;
1135  }
1136
1137  }
1138
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 1134

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Source File

- Token.sol

Locations

```
1133
1134  _maxTxAmount = 3000000000 * 10**6 * 10**9;
1135  }
1136
1137  }
1138
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 1134

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
1133
1134  _maxTxAmount = 3000000000 * 10**6 * 10**9;
1135  }
1136
1137  }
1138
```

SWC-101 | COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED

LINE 723

low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

Source File

- Token.sol

Locations

```
722   if (_excluded[i] == account) {  
723     _excluded[i] = _excluded[_excluded.length - 1];  
724     _tOwned[account] = 0;  
725     _isExcluded[account] = false;  
726     _excluded.pop();  
727   }
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 18

low SEVERITY

The current pragma Solidity directive is `""^0.8.4""`. 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

- Token.sol

Locations

```
17  **/  
18  pragma solidity ^0.8.4;  
19  
20  
21  interface IERC20 {  
22
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 577

low SEVERITY

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

Source File

- Token.sol

Locations

```
576
577  bool inSwapAndLiquify;
578  bool public swapAndLiquifyEnabled = false;
579
580  event SwapAndLiquifyEnabledUpdated(bool enabled);
581
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 722

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
721   for (uint256 i = 0; i < _excluded.length; i++) {  
722     if (_excluded[i] == account) {  
723       _excluded[i] = _excluded[_excluded.length - 1];  
724       _tOwned[account] = 0;  
725       _isExcluded[account] = false;  
726     }
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 723

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
722   if (_excluded[i] == account) {  
723     _excluded[i] = _excluded[_excluded.length - 1];  
724     _tOwned[account] = 0;  
725     _isExcluded[account] = false;  
726     _excluded.pop();  
727   }
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 723

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
722   if (_excluded[i] == account) {  
723     _excluded[i] = _excluded[_excluded.length - 1];  
724     _tOwned[account] = 0;  
725     _isExcluded[account] = false;  
726     _excluded.pop();  
727
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 799

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
798     address[] memory path = new address[](2);
799     path[0] = address(this);
800     path[1] = uniswapV2Router.WETH();
801
802     _approve(address(this), address(uniswapV2Router), tokenAmount);
803
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 800

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
799     path[0] = address(this);  
800     path[1] = uniswapV2Router.WETH();  
801  
802     _approve(address(this), address(uniswapV2Router), tokenAmount);  
803  
804
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 946

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
945   for (uint256 i = 0; i < _excluded.length; i++) {  
946     if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return  
      (_rTotal, _tTotal);  
947     rSupply = rSupply.sub(_rOwned[_excluded[i]]);  
948     tSupply = tSupply.sub(_tOwned[_excluded[i]]);  
949   }  
950
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 946

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
945   for (uint256 i = 0; i < _excluded.length; i++) {  
946     if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return  
      (_rTotal, _tTotal);  
947     rSupply = rSupply.sub(_rOwned[_excluded[i]]);  
948     tSupply = tSupply.sub(_tOwned[_excluded[i]]);  
949   }  
950
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 947

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
946  if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return
    (_rTotal, _tTotal);
947  rSupply = rSupply.sub(_rOwned[_excluded[i]]);
948  tSupply = tSupply.sub(_tOwned[_excluded[i]]);
949  }
950  if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
951
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 948

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

```
947   rSupply = rSupply.sub(_rOwned[_excluded[i]]);
948   tSupply = tSupply.sub(_tOwned[_excluded[i]]);
949   }
950   if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
951   return (rSupply, tSupply);
952
```

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