

# MASYA Smart Contract Audit Report



25 Oct 2022



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# AUDITED DETAILS

### Audited Project

Project name	Token ticker	Blockchain	
MASYA	MASYA	Ethereum	

### Addresses

Contract address	0x26f45C6D6bfdd89d37a8856838c2141348334E0F	
Contract deployer address	0x0cefB0Fb76a7d2081c1905057aab2D21e07E4beB	

### Project Website

#### https://www.masya.io/

### Codebase

https://etherscan.io/address/0x26f45C6D6bfdd89d37a8856838c2141348334E0F#code



# SUMMARY

\$MASYA Is A Decentralised, Zero Tax Meme Coin On The Ethereum Network. Dedicated To Vitalik Buterin And Cats Everywhere.

### Contract Summary

#### **Documentation Quality**

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

• The technical description is provided clearly and structured and also dont have any high risk issue.

#### **Code Quality**

The Overall quality of the basecode is standard.

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

#### Test Coverage

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

### Audit Findings Summary

- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 386, 405, 427, 460, 462, 483, 484, 509, 511, 607, 621, 636, 637, 650, 662, 677, 691, 705, 719, 735, 758, 781, 807, 1141, 1143, 1144, 1145, 1145, 1150, 1150, 1155, 1155, 1204, 1204, 1208, 1208, 1217, 1217, 1217, 1220, 1220, 1225, 1225, 1225, 1228, 1228, 1251, 1251, 1263, 1263, 1363, 1378, 1408, 1427, 1427, 1427, 1428, 1428, 1428, 1429, 1429, 1429, 1434, 1434, 1434, 1435, 1435, 1435, 1435, 1436, 1436, 1436, 1443, 1484, 1484, 1493, 1494, 1498, 1498, 1498, 1514, 1514 and 1583.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 10.
- 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 1452 and 1453.
- SWC-115 | tx.origin should not be used for authorization, use msg.sender instead on lines 1345 and 1349.
- SWC-120 | It is recommended to use external sources of randomness via oracles on lines 1346 and 1349.



# CONCLUSION

We have audited the MASYA project released on October 2022 to discover issues and identify potential security vulnerabilities in MASYA 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 MASYA 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, weak sources of randomness, tx.origin as a part of authorization control 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. Werecommend avoiding"tx.origin" issue, the tx.origin environment variable has been found to influence a control flow decision. Note that using "tx.origin" as a security control might cause a situation where a user inadvertently authorizes a smart contract to perform an action on their behalf. It is recommended to use "msg.sender" instead and also don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.



# 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.	PASS
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.	ISSUE FOUND
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.	ISSUE Found
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



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 abi.encodePacked() with multiple variable length arguments can, in certain situations, lead to a hash collision.	PASS
Hardcoded gas amount	SWC-134	The transfer() and send() 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	Monday Oct 24 2022 03:28:03 GMT+0000 (Coordinated Universal Time)
Finished	Tuesday Oct 25 2022 01:47:46 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	MASYA.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	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	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-115	USE OF "TX.ORIGIN" AS A PART OF AUTHORIZATION CONTROL.	low	acknowledged
SWC-115	USE OF "TX.ORIGIN" AS A PART OF AUTHORIZATION CONTROL.	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged
SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged





### SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

**LINE 386** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
385 unchecked {
386 _approve(sender, _msgSender(), currentAllowance - amount);
387 }
388
389 return true;
390
```



### SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

**LINE 405** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
404 function increaseAllowance(address spender, uint256 addedValue) public virtual
returns (bool) {
405 _approve(_msgSender(), spender, _allowances[_msgSender()][spender] + addedValue);
406 return true;
407 }
408
409
```



## SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 427

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
426 unchecked {
427 _approve(_msgSender(), spender, currentAllowance - subtractedValue);
428 }
429
430 return true;
431
```



### SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

**LINE 460** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
459 unchecked {
460 _balances[sender] = senderBalance - amount;
461 }
462 _balances[recipient] += amount;
463
464
```



### SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 462

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

461 }
462 \_balances[recipient] += amount;
463
464 emit Transfer(sender, recipient, amount);
465
466



### SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

**LINE 483** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

482
483 \_totalSupply += amount;
484 \_balances[account] += amount;
485 emit Transfer(address(0), account, amount);
486
487



### SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

**LINE 484** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

483 \_\_totalSupply += amount; 484 \_\_balances[account] += amount; 485 emit Transfer(address(0), account, amount); 486 487 \_\_afterTokenTransfer(address(0), account, amount); 488



### SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

**LINE 509** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
508 unchecked {
509 _balances[account] = accountBalance - amount;
510 }
511 _totalSupply -= amount;
512
513
```



## SWC-101 | ARITHMETIC OPERATION "-=" DISCOVERED

LINE 511

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
510 }
511 _totalSupply -= amount;
512
513 emit Transfer(account, address(0), amount);
514
515
```



### SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 607

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
606 unchecked {
607 uint256 c = a + b;
608 if (c < a) return (false, 0);
609 return (true, c);
610 }
611</pre>
```



### SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

**LINE 621** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
620 if (b > a) return (false, 0);
621 return (true, a - b);
622 }
623 }
624
625
```



### SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

**LINE 636** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
635 if (a == 0) return (true, 0);
636 uint256 c = a * b;
637 if (c / a != b) return (false, 0);
638 return (true, c);
639 }
640
```



### SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

**LINE 637** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
636 uint256 c = a * b;
637 if (c / a != b) return (false, 0);
638 return (true, c);
639 }
640 }
641
```



### SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

**LINE 650** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
649 if (b == 0) return (false, 0);
650 return (true, a / b);
651 }
652 }
653
654
```



### SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 662

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
661 if (b == 0) return (false, 0);
662 return (true, a % b);
663 }
664 }
665
666
```



### SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 677

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
676 function add(uint256 a, uint256 b) internal pure returns (uint256) {
677 return a + b;
678 }
679
680 /**
681
```



### SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 691

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
690 function sub(uint256 a, uint256 b) internal pure returns (uint256) {
691 return a - b;
692 }
693
694 /**
695
```



### SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

**LINE 705** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
704 function mul(uint256 a, uint256 b) internal pure returns (uint256) {
705 return a * b;
706 }
707
708 /**
709
```



## SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 719

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
718 function div(uint256 a, uint256 b) internal pure returns (uint256) {
719 return a / b;
720 }
721
722 /**
723
```



## SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

**LINE 735** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
734 function mod(uint256 a, uint256 b) internal pure returns (uint256) {
735 return a % b;
736 }
737
738 /**
739
```



### SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

**LINE 758** 

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
757 require(b <= a, errorMessage);
758 return a - b;
759 }
760 }
761
762</pre>
```



## SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

**LINE** 781

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
780 require(b > 0, errorMessage);
781 return a / b;
782 }
783 }
784
785
```



## SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 807

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
806 require(b > 0, errorMessage);
807 return a % b;
808 }
809 }
810 }
811
```


LINE 1141

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

#### Locations

1140
1141 uint256 totalSupply = 1\_000\_000\_000\_000\_000 \* le18;
1142
1143 maxTransactionAmount = 20\_000\_000\_000\_000 \* le18;
1144 maxWallet = 20\_000\_000\_000 \* le18;
1145



LINE 1143

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

#### Locations

1142
1143 maxTransactionAmount = 20\_000\_000\_000 \* 1e18;
1144 maxWallet = 20\_000\_000\_000 \* 1e18;
1145 swapTokensAtAmount = (totalSupply \* 5) / 10000;
1146
1147



LINE 1144

## **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1143 maxTransactionAmount = 20_000_000_000_000 * lel8;
1144 maxWallet = 20_000_000_000_000 * lel8;
1145 swapTokensAtAmount = (totalSupply * 5) / 10000;
1146
1147 buyMarketingFee = _buyMarketingFee;
1148
```



LINE 1145

## **Iow SEVERITY**

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

## Source File

- MASYA.sol

```
1144 maxWallet = 20_000_000_000_000 * le18;
1145 swapTokensAtAmount = (totalSupply * 5) / 10000;
1146
1147 buyMarketingFee = _buyMarketingFee;
1148 buyLiquidityFee = _buyLiquidityFee;
1149
```



LINE 1145

## **Iow SEVERITY**

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

## Source File

- MASYA.sol

```
1144 maxWallet = 20_000_000_000_000 * le18;
1145 swapTokensAtAmount = (totalSupply * 5) / 10000;
1146
1147 buyMarketingFee = _buyMarketingFee;
1148 buyLiquidityFee = _buyLiquidityFee;
1149
```



LINE 1150

### **Iow SEVERITY**

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

## Source File

- MASYA.sol

```
1149 buyDevFee = _buyDevFee;
1150 buyTotalFees = buyMarketingFee + buyLiquidityFee + buyDevFee;
1151
1152 sellMarketingFee = _sellMarketingFee;
1153 sellLiquidityFee = _sellLiquidityFee;
1154
```



LINE 1150

### **Iow SEVERITY**

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

## Source File

- MASYA.sol

```
1149 buyDevFee = _buyDevFee;
1150 buyTotalFees = buyMarketingFee + buyLiquidityFee + buyDevFee;
1151
1152 sellMarketingFee = _sellMarketingFee;
1153 sellLiquidityFee = _sellLiquidityFee;
1154
```



LINE 1155

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

```
1154 sellDevFee = _sellDevFee;
1155 sellTotalFees = sellMarketingFee + sellLiquidityFee + sellDevFee;
1156
1157 marketingWallet = address(0x7900dlCe354015770822c245cEA7b4CCDCd73631); // set as
marketing wallet
1158 devWallet = address(0x0cefB0Fb76a7d2081c1905057aab2D21e07E4beB); // set as dev
wallet
1159
```



LINE 1155

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

```
1154 sellDevFee = _sellDevFee;
1155 sellTotalFees = sellMarketingFee + sellLiquidityFee + sellDevFee;
1156
1157 marketingWallet = address(0x7900dlCe354015770822c245cEA7b4CCDCd73631); // set as
marketing wallet
1158 devWallet = address(0x0cefB0Fb76a7d2081c1905057aab2D21e07E4beB); // set as dev
wallet
1159
```



LINE 1204

## **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1203 require(
1204 newAmount >= (totalSupply() \* 1) / 100000,
1205 "Swap amount cannot be lower than 0.001% total supply."
1206 );
1207 require(
1208



LINE 1204

## **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1203 require( 1204 newAmount >= (totalSupply() \* 1) / 100000, 1205 "Swap amount cannot be lower than 0.001% total supply." 1206 ); 1207 require( 1208



LINE 1208

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

#### Locations

1207 require( 1208 newAmount <= (totalSupply() \* 5) / 1000, 1209 "Swap amount cannot be higher than 0.5% total supply." 1210 ); 1211 swapTokensAtAmount = newAmount; 1212



LINE 1208

## **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1207 require( 1208 newAmount <= (totalSupply() \* 5) / 1000, 1209 "Swap amount cannot be higher than 0.5% total supply." 1210 ); 1211 swapTokensAtAmount = newAmount; 1212



LINE 1217

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

#### Locations

1216 require(
1217 newNum >= ((totalSupply() \* 1) / 1000) / 1e18,
1218 "Cannot set maxTransactionAmount lower than 0.1%"
1219 );
1220 maxTransactionAmount = newNum \* (10\*\*18);
1221



LINE 1217

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

#### Locations

1216 require(
1217 newNum >= ((totalSupply() \* 1) / 1000) / 1e18,
1218 "Cannot set maxTransactionAmount lower than 0.1%"
1219 );
1220 maxTransactionAmount = newNum \* (10\*\*18);
1221



LINE 1217

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

#### Locations

1216 require(
1217 newNum >= ((totalSupply() \* 1) / 1000) / 1e18,
1218 "Cannot set maxTransactionAmount lower than 0.1%"
1219 );
1220 maxTransactionAmount = newNum \* (10\*\*18);
1221



LINE 1220

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

#### Locations

1219 ); 1220 maxTransactionAmount = newNum \* (10\*\*18); 1221 } 1222 1223 function updateMaxWalletAmount(uint256 newNum) external onlyOwner { 1224



LINE 1220

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

#### Locations

1219 ); 1220 maxTransactionAmount = newNum \* (10\*\*18); 1221 } 1222 1223 function updateMaxWalletAmount(uint256 newNum) external onlyOwner { 1224



LINE 1225

## **Iow SEVERITY**

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

## Source File

- MASYA.sol

```
1224 require(
1225 newNum >= ((totalSupply() * 5) / 1000) / 1e18,
1226 "Cannot set maxWallet lower than 0.5%"
1227 );
1228 maxWallet = newNum * (10**18);
1229
```



LINE 1225

## **Iow SEVERITY**

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

## Source File

- MASYA.sol

```
1224 require(
1225 newNum >= ((totalSupply() * 5) / 1000) / 1e18,
1226 "Cannot set maxWallet lower than 0.5%"
1227 );
1228 maxWallet = newNum * (10**18);
1229
```



LINE 1225

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

```
1224 require(
1225 newNum >= ((totalSupply() * 5) / 1000) / 1e18,
1226 "Cannot set maxWallet lower than 0.5%"
1227 );
1228 maxWallet = newNum * (10**18);
1229
```



# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 1228

## **Iow SEVERITY**

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

## Source File

- MASYA.sol

#### Locations

1227 ); 1228 maxWallet = newNum \* (10\*\*18); 1229 } 1230 1231 function excludeFromMaxTransaction(address updAds, bool isEx) 1232



LINE 1228

### **Iow SEVERITY**

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

## Source File

- MASYA.sol

#### Locations

1227 ); 1228 maxWallet = newNum \* (10\*\*18); 1229 } 1230 1231 function excludeFromMaxTransaction(address updAds, bool isEx) 1232



LINE 1251

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

```
1250 buyDevFee = _devFee;
1251 buyTotalFees = buyMarketingFee + buyLiquidityFee + buyDevFee;
1252 require(buyTotalFees <= 11, "Must keep fees at 11% or less");
1253 }
1254
1255
```



LINE 1251

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

```
1250 buyDevFee = _devFee;
1251 buyTotalFees = buyMarketingFee + buyLiquidityFee + buyDevFee;
1252 require(buyTotalFees <= 11, "Must keep fees at 11% or less");
1253 }
1254
1255
```



LINE 1263

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

```
1262 sellDevFee = _devFee;
1263 sellTotalFees = sellMarketingFee + sellLiquidityFee + sellDevFee;
1264 require(sellTotalFees <= 11, "Must keep fees at 11% or less");
1265 }
1266
1267
```



LINE 1263

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

```
1262 sellDevFee = _devFee;
1263 sellTotalFees = sellMarketingFee + sellLiquidityFee + sellDevFee;
1264 require(sellTotalFees <= 11, "Must keep fees at 11% or less");
1265 }
1266
1267
```



LINE 1363

### **Iow SEVERITY**

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

### Source File

- MASYA.sol

```
1362 require(
1363 amount + balanceOf(to) <= maxWallet,
1364 "Max wallet exceeded"
1365 );
1366 }
1367</pre>
```



LINE 1378

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

```
1377 require(
1378 amount + balanceOf(to) <= maxWallet,
1379 "Max wallet exceeded"
1380 );
1381 }
1382</pre>
```



LINE 1408

## **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1407 lpBurnEnabled &&
1408 block.timestamp >= lastLpBurnTime + lpBurnFrequency &&
1409 !\_isExcludedFromFees[from]
1410 ) {
1411 autoBurnLiquidityPairTokens();
1412



LINE 1427

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

```
1426 fees = amount.mul(sellTotalFees).div(100);
1427 tokensForLiquidity += (fees * sellLiquidityFee) / sellTotalFees;
1428 tokensForDev += (fees * sellDevFee) / sellTotalFees;
1429 tokensForMarketing += (fees * sellMarketingFee) / sellTotalFees;
1430 }
1431
```



LINE 1427

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

```
1426 fees = amount.mul(sellTotalFees).div(100);
1427 tokensForLiquidity += (fees * sellLiquidityFee) / sellTotalFees;
1428 tokensForDev += (fees * sellDevFee) / sellTotalFees;
1429 tokensForMarketing += (fees * sellMarketingFee) / sellTotalFees;
1430 }
1431
```



LINE 1427

## **Iow SEVERITY**

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

### Source File

- MASYA.sol

```
1426 fees = amount.mul(sellTotalFees).div(100);
1427 tokensForLiquidity += (fees * sellLiquidityFee) / sellTotalFees;
1428 tokensForDev += (fees * sellDevFee) / sellTotalFees;
1429 tokensForMarketing += (fees * sellMarketingFee) / sellTotalFees;
1430 }
1431
```



LINE 1428

## **Iow SEVERITY**

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

## Source File

- MASYA.sol

```
1427 tokensForLiquidity += (fees * sellLiquidityFee) / sellTotalFees;
1428 tokensForDev += (fees * sellDevFee) / sellTotalFees;
1429 tokensForMarketing += (fees * sellMarketingFee) / sellTotalFees;
1430 }
1431 // on buy
1432
```



LINE 1428

### **Iow SEVERITY**

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

## Source File

- MASYA.sol

```
1427 tokensForLiquidity += (fees * sellLiquidityFee) / sellTotalFees;
1428 tokensForDev += (fees * sellDevFee) / sellTotalFees;
1429 tokensForMarketing += (fees * sellMarketingFee) / sellTotalFees;
1430 }
1431 // on buy
1432
```



LINE 1428

## **Iow SEVERITY**

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

## Source File

- MASYA.sol

```
1427 tokensForLiquidity += (fees * sellLiquidityFee) / sellTotalFees;
1428 tokensForDev += (fees * sellDevFee) / sellTotalFees;
1429 tokensForMarketing += (fees * sellMarketingFee) / sellTotalFees;
1430 }
1431 // on buy
1432
```


LINE 1429

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1428 tokensForDev += (fees * sellDevFee) / sellTotalFees;
1429 tokensForMarketing += (fees * sellMarketingFee) / sellTotalFees;
1430 }
1431 // on buy
1432 else if (automatedMarketMakerPairs[from] && buyTotalFees > 0) {
1433
```



LINE 1429

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1428 tokensForDev += (fees * sellDevFee) / sellTotalFees;
1429 tokensForMarketing += (fees * sellMarketingFee) / sellTotalFees;
1430 }
1431 // on buy
1432 else if (automatedMarketMakerPairs[from] && buyTotalFees > 0) {
1433
```



LINE 1429

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1428 tokensForDev += (fees * sellDevFee) / sellTotalFees;
1429 tokensForMarketing += (fees * sellMarketingFee) / sellTotalFees;
1430 }
1431 // on buy
1432 else if (automatedMarketMakerPairs[from] && buyTotalFees > 0) {
1433
```



LINE 1434

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1433 fees = amount.mul(buyTotalFees).div(100); 1434 tokensForLiquidity += (fees \* buyLiquidityFee) / buyTotalFees; 1435 tokensForDev += (fees \* buyDevFee) / buyTotalFees; 1436 tokensForMarketing += (fees \* buyMarketingFee) / buyTotalFees; 1437 } 1438



LINE 1434

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1433 fees = amount.mul(buyTotalFees).div(100); 1434 tokensForLiquidity += (fees \* buyLiquidityFee) / buyTotalFees; 1435 tokensForDev += (fees \* buyDevFee) / buyTotalFees; 1436 tokensForMarketing += (fees \* buyMarketingFee) / buyTotalFees; 1437 } 1438



LINE 1434

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1433 fees = amount.mul(buyTotalFees).div(100); 1434 tokensForLiquidity += (fees \* buyLiquidityFee) / buyTotalFees; 1435 tokensForDev += (fees \* buyDevFee) / buyTotalFees; 1436 tokensForMarketing += (fees \* buyMarketingFee) / buyTotalFees; 1437 } 1438



LINE 1435

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1434 tokensForLiquidity += (fees * buyLiquidityFee) / buyTotalFees;
1435 tokensForDev += (fees * buyDevFee) / buyTotalFees;
1436 tokensForMarketing += (fees * buyMarketingFee) / buyTotalFees;
1437 }
1438
1439
```



LINE 1435

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1434 tokensForLiquidity += (fees * buyLiquidityFee) / buyTotalFees;
1435 tokensForDev += (fees * buyDevFee) / buyTotalFees;
1436 tokensForMarketing += (fees * buyMarketingFee) / buyTotalFees;
1437 }
1438
1439
```



LINE 1435

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1434 tokensForLiquidity += (fees * buyLiquidityFee) / buyTotalFees;
1435 tokensForDev += (fees * buyDevFee) / buyTotalFees;
1436 tokensForMarketing += (fees * buyMarketingFee) / buyTotalFees;
1437 }
1438
1439
```



LINE 1436

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1435 tokensForDev += (fees * buyDevFee) / buyTotalFees;
1436 tokensForMarketing += (fees * buyMarketingFee) / buyTotalFees;
1437 }
1438
1439 if (fees > 0) {
1440
```



LINE 1436

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1435 tokensForDev += (fees * buyDevFee) / buyTotalFees;
1436 tokensForMarketing += (fees * buyMarketingFee) / buyTotalFees;
1437 }
1438
1439 if (fees > 0) {
1440
```



LINE 1436

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1435 tokensForDev += (fees * buyDevFee) / buyTotalFees;
1436 tokensForMarketing += (fees * buyMarketingFee) / buyTotalFees;
1437 }
1438
1439 if (fees > 0) {
1440
```



LINE 1443

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1442
1443 amount -= fees;
1444 }
1445
1446 super.\_transfer(from, to, amount);
1447



LINE 1484

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1483 uint256 contractBalance = balanceOf(address(this)); 1484 uint256 totalTokensToSwap = tokensForLiquidity + 1485 tokensForMarketing + 1486 tokensForDev; 1487 bool success; 1488



LINE 1484

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1483 uint256 contractBalance = balanceOf(address(this)); 1484 uint256 totalTokensToSwap = tokensForLiquidity + 1485 tokensForMarketing + 1486 tokensForDev; 1487 bool success; 1488



LINE 1493

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1492
1493 if (contractBalance > swapTokensAtAmount \* 20) {
1494 contractBalance = swapTokensAtAmount \* 20;
1495 }
1496
1497



LINE 1494

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1493 if (contractBalance > swapTokensAtAmount * 20) {
1494 contractBalance = swapTokensAtAmount * 20;
1495 }
1496
1497 // Halve the amount of liquidity tokens
1498
```



LINE 1498

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1497 // Halve the amount of liquidity tokens 1498 uint256 liquidityTokens = (contractBalance \* tokensForLiquidity) / 1499 totalTokensToSwap / 1500 2; 1501 uint256 amountToSwapForETH = contractBalance.sub(liquidityTokens); 1502



LINE 1498

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1497 // Halve the amount of liquidity tokens 1498 uint256 liquidityTokens = (contractBalance \* tokensForLiquidity) / 1499 totalTokensToSwap / 1500 2; 1501 uint256 amountToSwapForETH = contractBalance.sub(liquidityTokens); 1502



LINE 1498

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1497 // Halve the amount of liquidity tokens 1498 uint256 liquidityTokens = (contractBalance \* tokensForLiquidity) / 1499 totalTokensToSwap / 1500 2; 1501 uint256 amountToSwapForETH = contractBalance.sub(liquidityTokens); 1502



LINE 1514

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1513
1514 uint256 ethForLiquidity = ethBalance - ethForMarketing - ethForDev;
1515
1516 tokensForLiquidity = 0;
1517 tokensForMarketing = 0;
1518
```



LINE 1514

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1513
1514 uint256 ethForLiquidity = ethBalance - ethForMarketing - ethForDev;
1515
1516 tokensForLiquidity = 0;
1517 tokensForMarketing = 0;
1518
```



LINE 1583

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

#### Locations

1582 require( 1583 block.timestamp > lastManualLpBurnTime + manualBurnFrequency, 1584 "Must wait for cooldown to finish" 1585 ); 1586 require(percent <= 1000, "May not nuke more than 10% of tokens in LP"); 1587



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

LINE 10

#### **Iow SEVERITY**

The current pragma Solidity directive is ""=0.8.10>=0.8.10>=0.8.0<0.9.0"". 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

- MASYA.sol

```
9 // SPDX-License-Identifier: MIT
10 pragma solidity =0.8.10 >=0.8.10 >=0.8.0 <0.9.0;
11 pragma experimental ABIEncoderV2;
12
13 ///// lib/openzeppelin-contracts/contracts/utils/Context.sol
14
```



# SWC-115 | USE OF "TX.ORIGIN" AS A PART OF AUTHORIZATION CONTROL.

LINE 1345

#### **Iow SEVERITY**

The tx.origin environment variable has been found to influence a control flow decision. Note that using "tx.origin" as a security control might cause a situation where a user inadvertently authorizes a smart contract to perform an action on their behalf. It is recommended to use "msg.sender" instead.

#### Source File

- MASYA.sol

#### Locations

1344 require( 1345 \_holderLastTransferTimestamp[tx.origin] < 1346 block.number, 1347 "\_transfer:: Transfer Delay enabled. Only one purchase per block allowed." 1348 ); 1349



# SWC-115 | USE OF "TX.ORIGIN" AS A PART OF AUTHORIZATION CONTROL.

LINE 1349

#### **Iow SEVERITY**

Using "tx.origin" as a security control can lead to authorization bypass vulnerabilities. Consider using "msg.sender" unless you really know what you are doing.

#### Source File

- MASYA.sol

#### Locations

1348 ); 1349 \_holderLastTransferTimestamp[tx.origin] = block.number; 1350 } 1351 } 1352 1353



### SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1452

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1451 address[] memory path = new address[](2);
1452 path[0] = address(this);
1453 path[1] = uniswapV2Router.WETH();
1454
1455 _approve(address(this), address(uniswapV2Router), tokenAmount);
1456
```



## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1453

#### **Iow SEVERITY**

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

#### Source File

- MASYA.sol

```
1452 path[0] = address(this);
1453 path[1] = uniswapV2Router.WETH();
1454
1455 _approve(address(this), address(uniswapV2Router), tokenAmount);
1456
1457
```



## SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.

LINE 1346

#### **Iow SEVERITY**

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

#### Source File

- MASYA.sol

#### Locations

1345 \_holderLastTransferTimestamp[tx.origin] <
1346 block.number,
1347 "\_transfer:: Transfer Delay enabled. Only one purchase per block allowed."
1348 );
1349 \_holderLastTransferTimestamp[tx.origin] = block.number;
1350</pre>





## SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.

LINE 1349

#### **Iow SEVERITY**

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

#### Source File

- MASYA.sol

```
1348 );
1349 _holderLastTransferTimestamp[tx.origin] = block.number;
1350 }
1351 }
1352
1353
```





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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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