

# Marvin Inu Smart Contract Audit Report



21 Jan 2022



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# AUDITED DETAILS

### Audited Project

Project name	Token ticker	Blockchain	
Marvin Inu	MARVIN	Binance Smart Chain	

### Addresses

Contract address 0x71ab195498b6dc1656abb4d9233f83ae5f19495b	
Contract deployer address	0xA0b8ECa5Dc3af66A0dAA478d3006731e32258131

### Project Website

https://marvin-ecosystem.com/

### Codebase

https://bscscan.com/address/0x71ab195498b6dc1656abb4d9233f83ae5f19495b#code



# SUMMARY

Marvin is here to stay, not only as a tribute to Elon's dog, but to bring user a full suite of treats, including his Launchpad, Staking, Farming, and more. Marvin INU has recognized a pattern of inadequate and unoriginal meme tokens, and aims to conquer them all!

### Contract Summary

#### **Documentation Quality**

Marvin Inu 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 Marvin Inu 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 481, 513, 536, 537, 572, 608, 674, 678, 690, 697, 706, 965, 965, 968, 969, 969, 970, 970, 975, 975, 980, 980, 1026, 1026, 1027, 1027, 1033, 1033, 1033, 1034, 1034, 1038, 1038, 1038, 1039, 1039, 1055, 1055, 1063, 1063, 1137, 1145, 1171, 1188, 1188, 1188, 1189, 1189, 1189, 1190, 1190, 1190, 1190, 1195, 1195, 1195, 1196, 1196, 1196, 1197, 1197, 1204, 1249, 1249, 1254, 1255, 1259, 1259, 1259, 1272, 1272 and 1321.
- 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 1214 and 1215.
- SWC-115 | tx.origin should not be used for authorization, use msg.sender instead on lines 1129 and 1130.
- SWC-120 | It is recommended to use external sources of randomness via oracles on lines 1129 and 1130.



# CONCLUSION

We have audited the Marvin Inu project released on January 2023 to discover issues and identify potential security vulnerabilities in Marvin 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 satisfactory results with low-risk issues.

The Marvin Inu smart contract code issues 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 Use of "tx.origin" as a part of authorization control, Potential use of "block.number" as a source of randomness, and out-of-bounds array access in which the index access expression can cause an exception in case of the use of an invalid array index value. 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 act on their behalf. It is recommended to use "msg.sender" instead. 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 using 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.		
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.	PASS	
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.	
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	Thursday Jan 20 2022 08:46:53 GMT+0000 (Coordinated Universal Time)		
Finished	Friday Jan 21 2022 16:59:47 GMT+0000 (Coordinated Universal Time)		
Mode	Standard		
Main Source File	MarvinInu.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-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



**LINE 481** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
480 function add(uint256 a, uint256 b) internal pure returns (uint256) {
481 uint256 c = a + b;
482 require(c >= a, "SafeMath: addition overflow");
483
484 return c;
485
```



LINE 513

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
512 require(b <= a, errorMessage);
513 uint256 c = a - b;
514
515 return c;
516 }
517</pre>
```



**LINE 536** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
535
536 uint256 c = a * b;
537 require(c / a == b, "SafeMath: multiplication overflow");
538
539 return c;
540
```



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

**LINE 537** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
536 uint256 c = a * b;
537 require(c / a == b, "SafeMath: multiplication overflow");
538
539 return c;
540 }
541
```



LINE 572

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
571 require(b > 0, errorMessage);
572 uint256 c = a / b;
573 // assert(a == b * c + a % b); // There is no case in which this doesn't hold
574
575 return c;
576
```



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

**LINE 608** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
607 require(b != 0, errorMessage);
608 return a % b;
609 }
610 }
611
612
```



**LINE 674** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
673 function mul(int256 a, int256 b) internal pure returns (int256) {
674 int256 c = a * b;
675
676 // Detect overflow when multiplying MIN_INT256 with -1
677 require(c != MIN_INT256 || (a & MIN_INT256) != (b & MIN_INT256));
678
```



**LINE 678** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
677 require(c != MIN_INT256 || (a & MIN_INT256) != (b & MIN_INT256));
678 require((b == 0) || (c / b == a));
679 return c;
680 }
681
682
```



**LINE 690** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
689 // Solidity already throws when dividing by 0.
690 return a / b;
691 }
692 
693 /**
694
```



LINE 697

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
696 function sub(int256 a, int256 b) internal pure returns (int256) {
697 int256 c = a - b;
698 require((b >= 0 && c <= a) || (b < 0 && c > a));
699 return c;
700 }
701
```



**LINE** 706

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
705 function add(int256 a, int256 b) internal pure returns (int256) {
706 int256 c = a + b;
707 require((b >= 0 && c >= a) || (b < 0 && c < a));
708 return c;
709 }
710</pre>
```



**LINE 965** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

#### Locations

964 965 uint256 totalSupply = 1 \* 1e12 \* 1e18; 966 967 //maxTransactionAmount = totalSupply \* 50 / 1000; // 0.50% maxTransactionAmountTxn 968 maxTransactionAmount = 500000000 \* 1e18; 969



**LINE 965** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

#### Locations

964 965 uint256 totalSupply = 1 \* 1e12 \* 1e18; 966 967 //maxTransactionAmount = totalSupply \* 50 / 1000; // 0.50% maxTransactionAmountTxn 968 maxTransactionAmount = 500000000 \* 1e18; 969



**LINE 968** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
967 //maxTransactionAmount = totalSupply * 50 / 1000; // 0.50% maxTransactionAmountTxn
968 maxTransactionAmount = 500000000 * 1e18;
969 maxWallet = totalSupply * 15 / 1000; // 1.5% maxWallet
970 swapTokensAtAmount = totalSupply * 15 / 10000; // 0.15% swap wallet
971
972
```



**LINE 969** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

#### Locations

968 maxTransactionAmount = 500000000 \* 1e18; 969 maxWallet = totalSupply \* 15 / 1000; // 1.5% maxWallet 970 swapTokensAtAmount = totalSupply \* 15 / 10000; // 0.15% swap wallet 971 972 buyMarketingFee = \_buyMarketingFee; 973



**LINE 969** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

#### Locations

968 maxTransactionAmount = 500000000 \* 1e18; 969 maxWallet = totalSupply \* 15 / 1000; // 1.5% maxWallet 970 swapTokensAtAmount = totalSupply \* 15 / 10000; // 0.15% swap wallet 971 972 buyMarketingFee = \_buyMarketingFee; 973



LINE 970

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
969 maxWallet = totalSupply * 15 / 1000; // 1.5% maxWallet
970 swapTokensAtAmount = totalSupply * 15 / 10000; // 0.15% swap wallet
971
972 buyMarketingFee = _buyMarketingFee;
973 buyLiquidityFee = _buyLiquidityFee;
974
```



LINE 970

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
969 maxWallet = totalSupply * 15 / 1000; // 1.5% maxWallet
970 swapTokensAtAmount = totalSupply * 15 / 10000; // 0.15% swap wallet
971
972 buyMarketingFee = _buyMarketingFee;
973 buyLiquidityFee = _buyLiquidityFee;
974
```



**LINE 975** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
974 buyDevFee = _buyDevFee;
975 buyTotalFees = buyMarketingFee + buyLiquidityFee + buyDevFee;
976
977 sellMarketingFee = _sellMarketingFee;
978 sellLiquidityFee = _sellLiquidityFee;
979
```



**LINE 975** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
974 buyDevFee = _buyDevFee;
975 buyTotalFees = buyMarketingFee + buyLiquidityFee + buyDevFee;
976
977 sellMarketingFee = _sellMarketingFee;
978 sellLiquidityFee = _sellLiquidityFee;
979
```



**LINE 980** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
979 sellDevFee = _sellDevFee;
980 sellTotalFees = sellMarketingFee + sellLiquidityFee + sellDevFee;
981
982 marketingWallet = address(owner()); // set as marketing wallet
983 devWallet = address(owner()); // set as dev wallet
984
```



**LINE 980** 

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
979 sellDevFee = _sellDevFee;
980 sellTotalFees = sellMarketingFee + sellLiquidityFee + sellDevFee;
981
982 marketingWallet = address(owner()); // set as marketing wallet
983 devWallet = address(owner()); // set as dev wallet
984
```



LINE 1026

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
1025 function updateSwapTokensAtAmount(uint256 newAmount) external onlyOwner returns
(bool){
1026 require(newAmount >= totalSupply() * 1 / 100000, "Swap amount cannot be lower than
0.001% total supply.");
1027 require(newAmount <= totalSupply() * 5 / 1000, "Swap amount cannot be higher than
0.5% total supply.");
1028 swapTokensAtAmount = newAmount;
1029 return true;
1030</pre>
```



LINE 1026

#### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
1025 function updateSwapTokensAtAmount(uint256 newAmount) external onlyOwner returns
(bool){
1026 require(newAmount >= totalSupply() * 1 / 100000, "Swap amount cannot be lower than
0.001% total supply.");
1027 require(newAmount <= totalSupply() * 5 / 1000, "Swap amount cannot be higher than
0.5% total supply.");
1028 swapTokensAtAmount = newAmount;
1029 return true;
1030</pre>
```



LINE 1027

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1026 require(newAmount >= totalSupply() * 1 / 100000, "Swap amount cannot be lower than
0.001% total supply.");
1027 require(newAmount <= totalSupply() * 5 / 1000, "Swap amount cannot be higher than
0.5% total supply.");
1028 swapTokensAtAmount = newAmount;
1029 return true;
1030 }
1031</pre>
```





LINE 1027

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1026 require(newAmount >= totalSupply() * 1 / 100000, "Swap amount cannot be lower than
0.001% total supply.");
1027 require(newAmount <= totalSupply() * 5 / 1000, "Swap amount cannot be higher than
0.5% total supply.");
1028 swapTokensAtAmount = newAmount;
1029 return true;
1030 }
1031</pre>
```



LINE 1033

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1032 function updateMaxTxnAmount(uint256 newNum) external onlyOwner {
1033 require(newNum >= (totalSupply() * 1 / 1000)/1e18, "Cannot set
maxTransactionAmount lower than 0.1%");
1034 maxTransactionAmount = newNum * (10**18);
1035 }
1036
1037
```



LINE 1033

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1032 function updateMaxTxnAmount(uint256 newNum) external onlyOwner {
1033 require(newNum >= (totalSupply() * 1 / 1000)/1e18, "Cannot set
maxTransactionAmount lower than 0.1%");
1034 maxTransactionAmount = newNum * (10**18);
1035 }
1036
1037
```



LINE 1033

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1032 function updateMaxTxnAmount(uint256 newNum) external onlyOwner {
1033 require(newNum >= (totalSupply() * 1 / 1000)/1e18, "Cannot set
maxTransactionAmount lower than 0.1%");
1034 maxTransactionAmount = newNum * (10**18);
1035 }
1036
1037
```



LINE 1034

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1033 require(newNum >= (totalSupply() * 1 / 1000)/le18, "Cannot set
maxTransactionAmount lower than 0.1%");
1034 maxTransactionAmount = newNum * (10**18);
1035 }
1036
1037 function updateMaxWalletAmount(uint256 newNum) external onlyOwner {
1038
```



LINE 1034

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1033 require(newNum >= (totalSupply() * 1 / 1000)/le18, "Cannot set
maxTransactionAmount lower than 0.1%");
1034 maxTransactionAmount = newNum * (10**18);
1035 }
1036
1037 function updateMaxWalletAmount(uint256 newNum) external onlyOwner {
1038
```



LINE 1038

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1037 function updateMaxWalletAmount(uint256 newNum) external onlyOwner {
1038 require(newNum >= (totalSupply() * 5 / 1000)/1e18, "Cannot set maxWallet lower
than 0.5%");
1039 maxWallet = newNum * (10**18);
1040 }
1041
1042
```



LINE 1038

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1037 function updateMaxWalletAmount(uint256 newNum) external onlyOwner {
1038 require(newNum >= (totalSupply() * 5 / 1000)/1e18, "Cannot set maxWallet lower
than 0.5%");
1039 maxWallet = newNum * (10**18);
1040 }
1041
1042
```



LINE 1038

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1037 function updateMaxWalletAmount(uint256 newNum) external onlyOwner {
1038 require(newNum >= (totalSupply() * 5 / 1000)/1e18, "Cannot set maxWallet lower
than 0.5%");
1039 maxWallet = newNum * (10**18);
1040 }
1041
1042
```



LINE 1039

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1038 require(newNum >= (totalSupply() * 5 / 1000)/1e18, "Cannot set maxWallet lower
than 0.5%");
1039 maxWallet = newNum * (10**18);
1040 }
1041
1042 function excludeFromMaxTransaction(address updAds, bool isEx) public onlyOwner {
1043
```



LINE 1039

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1038 require(newNum >= (totalSupply() * 5 / 1000)/1e18, "Cannot set maxWallet lower
than 0.5%");
1039 maxWallet = newNum * (10**18);
1040 }
1041
1042 function excludeFromMaxTransaction(address updAds, bool isEx) public onlyOwner {
1043
```



LINE 1055

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1054 buyDevFee = _devFee;
1055 buyTotalFees = buyMarketingFee + buyLiquidityFee + buyDevFee;
1056 require(buyTotalFees <= 20, "Must keep fees at 20% or less");
1057 }
1058
1059
```



LINE 1055

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1054 buyDevFee = _devFee;
1055 buyTotalFees = buyMarketingFee + buyLiquidityFee + buyDevFee;
1056 require(buyTotalFees <= 20, "Must keep fees at 20% or less");
1057 }
1058
1059
```



LINE 1063

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1062 sellDevFee = _devFee;
1063 sellTotalFees = sellMarketingFee + sellLiquidityFee + sellDevFee;
1064 require(sellTotalFees <= 25, "Must keep fees at 25% or less");
1065 }
1066
1067
```



LINE 1063

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1062 sellDevFee = _devFee;
1063 sellTotalFees = sellMarketingFee + sellLiquidityFee + sellDevFee;
1064 require(sellTotalFees <= 25, "Must keep fees at 25% or less");
1065 }
1066
1067
```



LINE 1137

## **Iow SEVERITY**

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

## Source File

- MarvinInu.sol

```
1136 require(amount <= maxTransactionAmount, "Buy transfer amount exceeds the
maxTransactionAmount.");
1137 require(amount + balanceOf(to) <= maxWallet, "Max wallet exceeded");
1138 }
1139
1140 //when sell
1141</pre>
```



LINE 1145

### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
1144 else if(!_isExcludedMaxTransactionAmount[to]){
1145 require(amount + balanceOf(to) <= maxWallet, "Max wallet exceeded");
1146 }
1147 }
1148 }
1149</pre>
```



LINE 1171

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1170
1171 if(!swapping && automatedMarketMakerPairs[to] && lpBurnEnabled && block.timestamp
>= lastLpBurnTime + lpBurnFrequency && !_isExcludedFromFees[from]){
1172 autoBurnLiquidityPairTokens();
1173 }
1174
1175
```



LINE 1188

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1187 fees = amount.mul(sellTotalFees).div(100);
1188 tokensForLiquidity += fees * sellLiquidityFee / sellTotalFees;
1189 tokensForDev += fees * sellDevFee / sellTotalFees;
1190 tokensForMarketing += fees * sellMarketingFee / sellTotalFees;
1191 }
1192
```



LINE 1188

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1187 fees = amount.mul(sellTotalFees).div(100);
1188 tokensForLiquidity += fees * sellLiquidityFee / sellTotalFees;
1189 tokensForDev += fees * sellDevFee / sellTotalFees;
1190 tokensForMarketing += fees * sellMarketingFee / sellTotalFees;
1191 }
1192
```



LINE 1188

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1187 fees = amount.mul(sellTotalFees).div(100);
1188 tokensForLiquidity += fees * sellLiquidityFee / sellTotalFees;
1189 tokensForDev += fees * sellDevFee / sellTotalFees;
1190 tokensForMarketing += fees * sellMarketingFee / sellTotalFees;
1191 }
1192
```



LINE 1189

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1188 tokensForLiquidity += fees * sellLiquidityFee / sellTotalFees;
1189 tokensForDev += fees * sellDevFee / sellTotalFees;
1190 tokensForMarketing += fees * sellMarketingFee / sellTotalFees;
1191 }
1192 // on buy
1193
```



LINE 1189

## **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
1188 tokensForLiquidity += fees * sellLiquidityFee / sellTotalFees;
1189 tokensForDev += fees * sellDevFee / sellTotalFees;
1190 tokensForMarketing += fees * sellMarketingFee / sellTotalFees;
1191 }
1192 // on buy
1193
```



LINE 1189

## **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
1188 tokensForLiquidity += fees * sellLiquidityFee / sellTotalFees;
1189 tokensForDev += fees * sellDevFee / sellTotalFees;
1190 tokensForMarketing += fees * sellMarketingFee / sellTotalFees;
1191 }
1192 // on buy
1193
```



LINE 1190

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1189 tokensForDev += fees * sellDevFee / sellTotalFees;
1190 tokensForMarketing += fees * sellMarketingFee / sellTotalFees;
1191 }
1192 // on buy
1193 else if(automatedMarketMakerPairs[from] && buyTotalFees > 0) {
1194
```



LINE 1190

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1189 tokensForDev += fees * sellDevFee / sellTotalFees;
1190 tokensForMarketing += fees * sellMarketingFee / sellTotalFees;
1191 }
1192 // on buy
1193 else if(automatedMarketMakerPairs[from] && buyTotalFees > 0) {
1194
```



LINE 1190

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1189 tokensForDev += fees * sellDevFee / sellTotalFees;
1190 tokensForMarketing += fees * sellMarketingFee / sellTotalFees;
1191 }
1192 // on buy
1193 else if(automatedMarketMakerPairs[from] && buyTotalFees > 0) {
1194
```



LINE 1195

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

### Locations

1194 fees = amount.mul(buyTotalFees).div(100); 1195 tokensForLiquidity += fees \* buyLiquidityFee / buyTotalFees; 1196 tokensForDev += fees \* buyDevFee / buyTotalFees; 1197 tokensForMarketing += fees \* buyMarketingFee / buyTotalFees; 1198 } 1199



LINE 1195

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

### Locations

1194 fees = amount.mul(buyTotalFees).div(100); 1195 tokensForLiquidity += fees \* buyLiquidityFee / buyTotalFees; 1196 tokensForDev += fees \* buyDevFee / buyTotalFees; 1197 tokensForMarketing += fees \* buyMarketingFee / buyTotalFees; 1198 } 1199



LINE 1195

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

### Locations

1194 fees = amount.mul(buyTotalFees).div(100); 1195 tokensForLiquidity += fees \* buyLiquidityFee / buyTotalFees; 1196 tokensForDev += fees \* buyDevFee / buyTotalFees; 1197 tokensForMarketing += fees \* buyMarketingFee / buyTotalFees; 1198 } 1199



LINE 1196

### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
1195 tokensForLiquidity += fees * buyLiquidityFee / buyTotalFees;
1196 tokensForDev += fees * buyDevFee / buyTotalFees;
1197 tokensForMarketing += fees * buyMarketingFee / buyTotalFees;
1198 }
1199 1200
```



LINE 1196

### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
1195 tokensForLiquidity += fees * buyLiquidityFee / buyTotalFees;
1196 tokensForDev += fees * buyDevFee / buyTotalFees;
1197 tokensForMarketing += fees * buyMarketingFee / buyTotalFees;
1198 }
1199 1200
```





LINE 1196

## **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
1195 tokensForLiquidity += fees * buyLiquidityFee / buyTotalFees;
1196 tokensForDev += fees * buyDevFee / buyTotalFees;
1197 tokensForMarketing += fees * buyMarketingFee / buyTotalFees;
1198 }
1199 1200
```



LINE 1197

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1196 tokensForDev += fees * buyDevFee / buyTotalFees;
1197 tokensForMarketing += fees * buyMarketingFee / buyTotalFees;
1198 }
1199 
1200 if(fees > 0){
1201
```



LINE 1197

## **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1196 tokensForDev += fees * buyDevFee / buyTotalFees;
1197 tokensForMarketing += fees * buyMarketingFee / buyTotalFees;
1198 }
1199 
1200 if(fees > 0){
1201
```



LINE 1197

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1196 tokensForDev += fees * buyDevFee / buyTotalFees;
1197 tokensForMarketing += fees * buyMarketingFee / buyTotalFees;
1198 }
1199 
1200 if(fees > 0){
1201
```



LINE 1204

### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

### Locations

1203
1204 amount -= fees;
1205 }
1206
1207 super.\_transfer(from, to, amount);
1208



LINE 1249

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1248 uint256 contractBalance = balanceOf(address(this));
1249 uint256 totalTokensToSwap = tokensForLiquidity + tokensForMarketing +
tokensForDev;
1250 bool success;
1251
1252 if(contractBalance == 0 || totalTokensToSwap == 0) {return;}
1253
```



LINE 1249

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1248 uint256 contractBalance = balanceOf(address(this));
1249 uint256 totalTokensToSwap = tokensForLiquidity + tokensForMarketing +
tokensForDev;
1250 bool success;
1251
1252 if(contractBalance == 0 || totalTokensToSwap == 0) {return;}
1253
```



LINE 1254

### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

### Locations

1253
1254 if(contractBalance > swapTokensAtAmount \* 20){
1255 contractBalance = swapTokensAtAmount \* 20;
1256 }
1257
1258



LINE 1255

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1254 if(contractBalance > swapTokensAtAmount * 20){
1255 contractBalance = swapTokensAtAmount * 20;
1256 }
1257
1258 // Halve the amount of liquidity tokens
1259
```



LINE 1259

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1258 // Halve the amount of liquidity tokens
1259 uint256 liquidityTokens = contractBalance * tokensForLiquidity / totalTokensToSwap
/ 2;
1260 uint256 amountToSwapForETH = contractBalance.sub(liquidityTokens);
1261
1262 uint256 initialETHBalance = address(this).balance;
1263
```



LINE 1259

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1258 // Halve the amount of liquidity tokens
1259 uint256 liquidityTokens = contractBalance * tokensForLiquidity / totalTokensToSwap
/ 2;
1260 uint256 amountToSwapForETH = contractBalance.sub(liquidityTokens);
1261
1262 uint256 initialETHBalance = address(this).balance;
1263
```



LINE 1259

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1258 // Halve the amount of liquidity tokens
1259 uint256 liquidityTokens = contractBalance * tokensForLiquidity / totalTokensToSwap
/ 2;
1260 uint256 amountToSwapForETH = contractBalance.sub(liquidityTokens);
1261
1262 uint256 initialETHBalance = address(this).balance;
1263
```



LINE 1272

### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
1271
1272 uint256 ethForLiquidity = ethBalance - ethForMarketing - ethForDev;
1273
1274
1275 tokensForLiquidity = 0;
1276
```



LINE 1272

### **Iow SEVERITY**

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

#### Source File

- MarvinInu.sol

```
1271
1272 uint256 ethForLiquidity = ethBalance - ethForMarketing - ethForDev;
1273
1274
1275 tokensForLiquidity = 0;
1276
```



LINE 1321

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1320 function manualBurnLiquidityPairTokens(uint256 percent) external onlyOwner returns
(bool){
1321 require(block.timestamp > lastManualLpBurnTime + manualBurnFrequency , "Must wait
for cooldown to finish");
1322 require(percent <= 1000, "May not nuke more than 10% of tokens in LP");
1323 lastManualLpBurnTime = block.timestamp;
1324
1325</pre>
```



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

LINE 1129

#### **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

- MarvinInu.sol

```
1128 if (to != owner() && to != address(uniswapV2Router) && to !=
address(uniswapV2Pair)){
1129 require(_holderLastTransferTimestamp[tx.origin] < block.number, "_transfer::
Transfer Delay enabled. Only one purchase per block allowed.");
1130 _holderLastTransferTimestamp[tx.origin] = block.number;
1131 }
1132 }
1133</pre>
```





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

LINE 1130

#### **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

- MarvinInu.sol

```
1129 require(_holderLastTransferTimestamp[tx.origin] < block.number, "_transfer::
Transfer Delay enabled. Only one purchase per block allowed.");
1130 _holderLastTransferTimestamp[tx.origin] = block.number;
1131 }
1132 }
1133
1134
```





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

LINE 1214

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1213 address[] memory path = new address[](2);
1214 path[0] = address(this);
1215 path[1] = uniswapV2Router.WETH();
1216
1217 _approve(address(this), address(uniswapV2Router), tokenAmount);
1218
```



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

LINE 1215

### **Iow SEVERITY**

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

### Source File

- MarvinInu.sol

```
1214 path[0] = address(this);
1215 path[1] = uniswapV2Router.WETH();
1216
1217 _approve(address(this), address(uniswapV2Router), tokenAmount);
1218
1219
```



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

LINE 1129

#### **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

- MarvinInu.sol

```
1128 if (to != owner() && to != address(uniswapV2Router) && to !=
address(uniswapV2Pair)){
1129 require(_holderLastTransferTimestamp[tx.origin] < block.number, "_transfer::
Transfer Delay enabled. Only one purchase per block allowed.");
1130 _holderLastTransferTimestamp[tx.origin] = block.number;
1131 }
1132 }
1133</pre>
```





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

LINE 1130

#### **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

- MarvinInu.sol

```
1129 require(_holderLastTransferTimestamp[tx.origin] < block.number, "_transfer::
Transfer Delay enabled. Only one purchase per block allowed.");
1130 _holderLastTransferTimestamp[tx.origin] = block.number;
1131 }
1132 }
1133
1134
```



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