

Chihiro Inu
Smart Contract
Audit Report





TABLE OF CONTENTS

| Audited Details

- Audited Project
- Blockchain
- Addresses
- Project Website
- Codebase

Summary

- Contract Summary
- Audit Findings Summary
- Vulnerabilities Summary

Conclusion

| Audit Results

Smart Contract Analysis

- Detected Vulnerabilities

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AUDITED DETAILS

| Audited Project

Project name	Token ticker	Blockchain	
Chihiro Inu	CHIRO	Ethereum	

Addresses

Contract address	0x35156b404c3f9bdaf45ab65ba315419bcde3775c
Contract deployer address	0x4dBe648F797E7eC51Da3eae23a89b971B4e022a5

Project Website

https://chihiro-inu.com/

Codebase

https://etherscan.io/address/0x35156b404c3f9bdaf45ab65ba315419bcde3775c#code



SUMMARY

Chihiro Inu is a next-generation GameFi ecosystem and launch pad founded in 2021. It is focusing on the development of high-quality play-to-earn games with excellent addictive gameplay and earning potential.

Contract Summary

Documentation Quality

Chihiro 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 Chihiro 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 699.
- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 95, 111, 117, 117, 133, 141, 660, 660, 661, 662, 694, 694, 701, 701, 706, 761, 761, 762, 762, 764, 764, 790, 790, 793, 793, 907, 919, 966, 970, 970, 977, 977, 1001, 1017, 1023, 1081, 1121, 1125, 1135, 1136, 1151, 1166, 1166, 1166, 1189, 1406, 1415, 1415, 1415, 1418, 1418, 1418, 1422, 1423, 1423, 1427, 1427, 1427, 1446, 1451, 1487, 1487, 1495, 1495 and 1023.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 43.
- 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 920, 921, 1020, 1022, 1022, 1197, 1197, 1407, 1408, 1409 and 1411.
- SWC-120 | It is recommended to use external sources of randomness via oracles on lines 907, 1056, 1068 and 1071.



CONCLUSION

We have audited the Chihiro Inu project released on October 2021 to discover issues and identify potential security vulnerabilities in Chihiro 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 Chihiro 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, weak sources of randomness, 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.	the 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.		
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.		
Reentrancy	SWC-107	Check effect interaction pattern should be followed if the code performs recursive call.		
Uninitialized Storage Pointer	SWC-109	Uninitialized local storage variables can point to unexpected storage locations in the contract.		
Assert Violation	SWC-110 SWC-123	Properly functioning code should never reach a ISSU failing assert statement. FOUN		
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.	
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.	
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.	
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 Oct 30 2021 07:39:53 GMT+0000 (Coordinated Universal Time)		
Finished	Friday Oct 31 2021 20:25:14 GMT+0000 (Coordinated Universal Time)		
Mode	Standard		
Main Source File	Chihirolnu.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	COMPILER-REWRITABLE " <uint> - 1" DISCOVERED</uint>	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	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-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 95

low SEVERITY

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

Source File

- Chihirolnu.sol

```
94  uint256 c = a * b;
95  require(c / a == b, "SafeMath: multiplication overflow");
96
97  return c;
98  }
99
```



LINE 111

low SEVERITY

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

Source File

- Chihirolnu.sol

```
110    uint256 c = a / b;
111    // assert(a == b * c + a % b); // There is no case in which this doesn't hold
112
113    return c;
114  }
115
```



LINE 117

low SEVERITY

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

Source File

- Chihirolnu.sol

```
function mod(uint256 a, uint256 b) internal pure returns (uint256) {
  return mod(a, b, "SafeMath: modulo by zero");
}

function mod(
  function mod(
  function mod()
```



LINE 117

low SEVERITY

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

Source File

- Chihirolnu.sol

```
116  function mod(uint256 a, uint256 b) internal pure returns (uint256) {
117  return mod(a, b, "SafeMath: modulo by zero");
118  }
119
120  function mod(
121
```



LINE 133

low SEVERITY

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

Source File

- Chihirolnu.sol



LINE 141

low SEVERITY

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

Source File

- Chihirolnu.sol

```
140 }
141 return (codehash != accountHash && codehash != 0x0);
142 }
143
144 function sendValue(address payable recipient, uint256 amount) internal {
145
```



LINE 660

low SEVERITY

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

Source File

- Chihirolnu.sol

```
659
660 uint256 private constant BUY = 1;
661 uint256 private constant SELL = 2;
662 uint256 private constant TRANSFER = 3;
663 uint256 private buyOrSellSwitch;
664
```



LINE 660

low SEVERITY

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

Source File

- Chihirolnu.sol

```
659
660 uint256 private constant BUY = 1;
661 uint256 private constant SELL = 2;
662 uint256 private constant TRANSFER = 3;
663 uint256 private buyOrSellSwitch;
664
```



LINE 661

low SEVERITY

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

Source File

- Chihirolnu.sol

```
uint256 private constant BUY = 1;
uint256 private constant SELL = 2;
uint256 private constant TRANSFER = 3;
uint256 private buy0rSellSwitch;
664
665
```



LINE 662

low SEVERITY

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

Source File

- Chihirolnu.sol

```
uint256 private constant SELL = 2;
uint256 private constant TRANSFER = 3;
uint256 private buyOrSellSwitch;

64
65 uint256 public _buyTaxFee = 2;
666
```



LINE 694

low SEVERITY

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

Source File

- Chihirolnu.sol

```
693
694 uint256 private minimumTokensBeforeSwap;
695
696 IUniswapV2Router02 public uniswapV2Router;
697 address public uniswapV2Pair;
698
```



LINE 694

low SEVERITY

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

Source File

- Chihirolnu.sol

```
693
694 uint256 private minimumTokensBeforeSwap;
695
696 IUniswapV2Router02 public uniswapV2Router;
697 address public uniswapV2Pair;
698
```



LINE 701

low SEVERITY

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

Source File

- Chihirolnu.sol

```
700 bool public swapAndLiquifyEnabled = false;
701 bool public tradingActive = false;
702
703 event SwapAndLiquifyEnabledUpdated(bool enabled);
704 event SwapAndLiquify(
705
```



LINE 701

low SEVERITY

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

Source File

- Chihirolnu.sol

```
700 bool public swapAndLiquifyEnabled = false;
701 bool public tradingActive = false;
702
703 event SwapAndLiquifyEnabledUpdated(bool enabled);
704 event SwapAndLiquify(
705
```



LINE 706

low SEVERITY

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

Source File

- Chihirolnu.sol

```
705  uint256 tokensSwapped,
706  uint256 ethReceived,
707  uint256 tokensIntoLiquidity
708 );
709
710
```



LINE 761

low SEVERITY

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

Source File

- Chihirolnu.sol

```
760    _isExcludedFromFee[address(this)] = true;
761    _isExcludedFromFee[marketingAddress] = true;
762    _isExcludedFromFee[liquidityAddress] = true;
763
764    excludeFromMaxTransaction(owner(), true);
765
```



LINE 761

low SEVERITY

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

Source File

- Chihirolnu.sol

```
760   _isExcludedFromFee[address(this)] = true;
761   _isExcludedFromFee[marketingAddress] = true;
762   _isExcludedFromFee[liquidityAddress] = true;
763
764   excludeFromMaxTransaction(owner(), true);
765
```



LINE 762

low SEVERITY

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

Source File

- Chihirolnu.sol

```
761  _isExcludedFromFee[marketingAddress] = true;
762  _isExcludedFromFee[liquidityAddress] = true;
763
764  excludeFromMaxTransaction(owner(), true);
765  excludeFromMaxTransaction(address(this), true);
766
```



LINE 762

low SEVERITY

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

Source File

- Chihirolnu.sol

```
761  _isExcludedFromFee[marketingAddress] = true;
762  _isExcludedFromFee[liquidityAddress] = true;
763
764  excludeFromMaxTransaction(owner(), true);
765  excludeFromMaxTransaction(address(this), true);
766
```



LINE 764

low SEVERITY

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

Source File

- Chihirolnu.sol

```
763
764 excludeFromMaxTransaction(owner(), true);
765 excludeFromMaxTransaction(address(this), true);
766 excludeFromMaxTransaction(address(0xdead), true);
767
768
```



LINE 764

low SEVERITY

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

Source File

- Chihirolnu.sol

```
763
764 excludeFromMaxTransaction(owner(), true);
765 excludeFromMaxTransaction(address(this), true);
766 excludeFromMaxTransaction(address(0xdead), true);
767
768
```



LINE 790

low SEVERITY

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

Source File

- Chihirolnu.sol

```
if (_isExcluded[account]) return _tOwned[account];
return tokenFromReflection(_rOwned[account]);

791 }
792
793 function transfer(address recipient, uint256 amount)
794
```



LINE 790

low SEVERITY

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

Source File

- Chihirolnu.sol

```
if (_isExcluded[account]) return _tOwned[account];
return tokenFromReflection(_rOwned[account]);

791 }
792
793 function transfer(address recipient, uint256 amount)
794
```



LINE 793

low SEVERITY

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

Source File

- Chihirolnu.sol

```
792
793 function transfer(address recipient, uint256 amount)
794 external
795 override
796 returns (bool)
797
```



LINE 793

low SEVERITY

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

Source File

- Chihirolnu.sol

```
792
793 function transfer(address recipient, uint256 amount)
794 external
795 override
796 returns (bool)
797
```



LINE 907

low SEVERITY

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

Source File

- Chihirolnu.sol

```
906    require(!tradingActive, "Trading is already active, cannot relaunch.");
907    require(presaleWallets.length < 200, "Can only airdrop 200 wallets per txn due to
gas limits"); // allows for airdrop + launch at the same exact time, reducing delays and
reducing sniper input.
908    for(uint256 i = 0; i < presaleWallets.length; i++){
909        address wallet = presaleWallets[i];
910        uint256 amount = amounts[i];
911</pre>
```



LINE 919

low SEVERITY

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

Source File

- Chihirolnu.sol

```
918  uniswapV2Pair =
IUniswapV2Factory(_uniswapV2Router.factory()).createPair(address(this),
    _uniswapV2Router.WETH());
919  excludeFromMaxTransaction(address(uniswapV2Pair), true);
920  _setAutomatedMarketMakerPair(address(uniswapV2Pair), true);
921  require(address(this).balance > 0, "Must have ETH on contract to launch");
922  addLiquidity(balanceOf(address(this)), address(this).balance);
923
```



LINE 966

low SEVERITY

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

Source File

- Chihirolnu.sol

```
965  return rAmount;
966  } else {
967   (, uint256 rTransferAmount, , , , ) = _getValues(tAmount);
968  return rTransferAmount;
969  }
970
```



LINE 970

low SEVERITY

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

Source File

- Chihirolnu.sol

```
969 }
970 }
971
972 function tokenFromReflection(uint256 rAmount)
973 public
974
```



LINE 970

low SEVERITY

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

Source File

- Chihirolnu.sol

```
969 }
970 }
971
972 function tokenFromReflection(uint256 rAmount)
973 public
974
```



LINE 977

low SEVERITY

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

Source File

- Chihirolnu.sol

```
976 {
977 require(
978 rAmount <= _rTotal,
979 "Amount must be less than total reflections"
980 );
981
```



LINE 977

low SEVERITY

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

Source File

- Chihirolnu.sol

```
976 {
977 require(
978 rAmount <= _rTotal,
979 "Amount must be less than total reflections"
980 );
981
```



LINE 1001

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1000   _tOwned[account] = 0;
1001   _isExcluded[account] = false;
1002   _excluded.pop();
1003   break;
1004  }
1005
```



LINE 1017

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1016   _allowances[owner][spender] = amount;
1017   emit Approval(owner, spender, amount);
1018  }
1019
1020   function _transfer(
1021
```



LINE 1023

low SEVERITY

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

Source File

- Chihirolnu.sol

```
address to,

1023   uint256 amount

1024 ) private {

1025   require(from != address(0), "ERC20: transfer from the zero address");

1026   require(to != address(0), "ERC20: transfer to the zero address");

1027
```



LINE 1081

low SEVERITY

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

Source File

- Chihirolnu.sol

```
uint256 contractTokenBalance = balanceOf(address(this));

bool overMinimumTokenBalance = contractTokenBalance >= minimumTokensBeforeSwap;

1082

1083  // swap and liquify

1084  if (
1085
```



LINE 1121

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1120    _liquidityFee = _liquidityFee * 10;
1121  }
1122    // Normal transfers do not get taxed
1123  } else {
1124    require(!boughtEarly[from] || earlyBuyPenaltyEnd <= block.timestamp, "Snipers can't transfer tokens to sell cheaper until penalty timeframe is over. DM a Mod.");
1125</pre>
```



LINE 1125

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1124    require(!boughtEarly[from] || earlyBuyPenaltyEnd <= block.timestamp, "Snipers
can't transfer tokens to sell cheaper until penalty timeframe is over. DM a Mod.");
1125    removeAllFee();
1126    buyOrSellSwitch = TRANSFER; // TRANSFERs do not pay a tax.
1127    }
1128  }
1129</pre>
```



LINE 1135

low SEVERITY

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

Source File

- Chihirolnu.sol

```
function swapBack() private lockTheSwap {
    uint256 contractBalance = balanceOf(address(this));
    uint256 totalTokensToSwap = _liquidityTokensToSwap + _marketingTokensToSwap;
    // Halve the amount of liquidity tokens
    // Halve the amount of liquidity tokens
```



LINE 1136

low SEVERITY

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

Source File

- Chihirolnu.sol

```
uint256 contractBalance = balanceOf(address(this));
uint256 totalTokensToSwap = _liquidityTokensToSwap + _marketingTokensToSwap;

1137

1138  // Halve the amount of liquidity tokens

1139  uint256 tokensForLiquidity = _liquidityTokensToSwap.div(2);

1140
```



LINE 1151

low SEVERITY

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

Source File

- Chihirolnu.sol

```
uint256 ethForLiquidity = ethBalance.sub(ethForMarketing);
uint256 ethForDev= ethForMarketing * 2 / 7; // 2/7 gos to dev
ethForMarketing -= ethForDev;
1154
1155
```



LINE 1166

low SEVERITY

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

Source File

- Chihirolnu.sol

```
if(address(this).balance > 1e17){
   (success,) = address(marketingAddress).call{value: address(this).balance}("");
   1167   }
   1168  }
   1169
   1170
```



LINE 1166

low SEVERITY

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

Source File

- Chihirolnu.sol



LINE 1166

low SEVERITY

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

Source File

- Chihirolnu.sol

```
if(address(this).balance > 1e17){
   (success,) = address(marketingAddress).call{value: address(this).balance}("");
   1167   }
   1168  }
   1169
   1170
```



LINE 1189

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1188 block.timestamp
1189 );
1190 }
1191
1192 function addLiquidity(uint256 tokenAmount, uint256 ethAmount) private {
1193
```



LINE 1406

low SEVERITY

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

Source File

- Chihirolnu.sol

```
__liquidityTokensToSwap += tLiquidity * _buyLiquidityFee / _liquidityFee;

__marketingTokensToSwap += tLiquidity * _buyMarketingFee / _liquidityFee;

__liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;

__liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;

__marketingTokensToSwap += tLiquidity * _sellMarketingFee / _liquidityFee;

__liquidityFee;
```



LINE 1415

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1414  if (_isExcluded[address(this)])
1415   _tOwned[address(this)] = _tOwned[address(this)].add(tLiquidity);
1416  }
1417
1418  function calculateTaxFee(uint256 _amount) private view returns (uint256) {
1419
```



LINE 1415

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1414  if (_isExcluded[address(this)])
1415   _tOwned[address(this)] = _tOwned[address(this)].add(tLiquidity);
1416  }
1417
1418  function calculateTaxFee(uint256 _amount) private view returns (uint256) {
1419
```



LINE 1415

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1414  if (_isExcluded[address(this)])
1415   _tOwned[address(this)] = _tOwned[address(this)].add(tLiquidity);
1416  }
1417
1418  function calculateTaxFee(uint256 _amount) private view returns (uint256) {
1419
```



LINE 1418

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1417
1418 function calculateTaxFee(uint256 _amount) private view returns (uint256) {
1419  return _amount.mul(_taxFee).div(10**2);
1420 }
1421
1422
```



LINE 1418

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1417
1418 function calculateTaxFee(uint256 _amount) private view returns (uint256) {
1419  return _amount.mul(_taxFee).div(10**2);
1420  }
1421
1422
```



LINE 1418

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1417
1418 function calculateTaxFee(uint256 _amount) private view returns (uint256) {
1419  return _amount.mul(_taxFee).div(10**2);
1420  }
1421
1422
```



LINE 1422

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1421
1422 function calculateLiquidityFee(uint256 _amount)
1423 private
1424 view
1425 returns (uint256)
1426
```



LINE 1423

low SEVERITY

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

Source File

- Chihirolnu.sol

```
function calculateLiquidityFee(uint256 _amount)
function calculateLiquidi
```



LINE 1423

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1422 function calculateLiquidityFee(uint256 _amount)
1423 private
1424 view
1425 returns (uint256)
1426 {
1427
```



LINE 1427

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1426 {
1427  return _amount.mul(_liquidityFee).div(10**2);
1428 }
1429
1430  function removeAllFee() private {
1431
```



LINE 1427

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1426 {
1427  return _amount.mul(_liquidityFee).div(10**2);
1428 }
1429
1430  function removeAllFee() private {
1431
```



LINE 1427

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1426 {
1427  return _amount.mul(_liquidityFee).div(10**2);
1428 }
1429
1430  function removeAllFee() private {
1431
```



LINE 1446

low SEVERITY

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

Source File

- Chihirolnu.sol

```
function isExcludedFromFee(address account) external view returns (bool) {
  return _isExcludedFromFee[account];
  }
  1447  }
  1448
  function removeBoughtEarly(address account) external onlyOwner {
  1450
```



LINE 1451

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1450 boughtEarly[account] = false;
1451 emit RemovedSniper(account);
1452 }
1453
1454 function excludeFromFee(address account) external onlyOwner {
1455
```



LINE 1487

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1486
1487 function setMarketingAddress(address _marketingAddress) external onlyOwner {
1488 require(_marketingAddress != address(0), "_marketingAddress address cannot be 0");
1489 _isExcludedFromFee[marketingAddress] = false;
1490 marketingAddress = payable(_marketingAddress);
1491
```



LINE 1487

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1486
1487 function setMarketingAddress(address _marketingAddress) external onlyOwner {
1488 require(_marketingAddress != address(0), "_marketingAddress address cannot be 0");
1489 _isExcludedFromFee[marketingAddress] = false;
1490 marketingAddress = payable(_marketingAddress);
1491
```



LINE 1495

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1494
1495 function setLiquidityAddress(address _liquidityAddress) public onlyOwner {
1496 require(_liquidityAddress != address(0), "_liquidityAddress address cannot be 0");
1497 liquidityAddress = payable(_liquidityAddress);
1498 _isExcludedFromFee[liquidityAddress] = true;
1499
```



LINE 1495

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1494
1495 function setLiquidityAddress(address _liquidityAddress) public onlyOwner {
1496 require(_liquidityAddress != address(0), "_liquidityAddress address cannot be 0");
1497 liquidityAddress = payable(_liquidityAddress);
1498 _isExcludedFromFee[liquidityAddress] = true;
1499
```



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

LINE 1023

low SEVERITY

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

Source File

- Chihirolnu.sol

```
address to,

1023   uint256 amount

1024 ) private {

1025   require(from != address(0), "ERC20: transfer from the zero address");

1026   require(to != address(0), "ERC20: transfer to the zero address");

1027
```



SWC-103 | A FLOATING PRAGMA IS SET.

LINE 43

low SEVERITY

The current pragma Solidity directive is ""^0.8.9"". 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

- ChihiroInu.sol

```
42 external
43 returns (bool);
44
45 function allowance(address owner, address spender)
46 external
47
```



SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 699

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

- Chihirolnu.sol

```
698
699 bool inSwapAndLiquify;
700 bool public swapAndLiquifyEnabled = false;
701 bool public tradingActive = false;
702
703
```



LINE 920

low SEVERITY

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

Source File

- Chihirolnu.sol

```
919 excludeFromMaxTransaction(address(uniswapV2Pair), true);
920    _setAutomatedMarketMakerPair(address(uniswapV2Pair), true);
921    require(address(this).balance > 0, "Must have ETH on contract to launch");
922    addLiquidity(balanceOf(address(this)), address(this).balance);
923    setLiquidityAddress(address(0xdead));
924
```



LINE 921

low SEVERITY

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

Source File

- Chihirolnu.sol

```
920    _setAutomatedMarketMakerPair(address(uniswapV2Pair), true);
921    require(address(this).balance > 0, "Must have ETH on contract to launch");
922    addLiquidity(balanceOf(address(this)), address(this).balance);
923    setLiquidityAddress(address(0xdead));
924    return true;
925
```



LINE 1020

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1019
1020 function _transfer(
1021 address from,
1022 address to,
1023 uint256 amount
1024
```



LINE 1022

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1021 address from,
1022 address to,
1023 uint256 amount
1024 ) private {
1025 require(from != address(0), "ERC20: transfer from the zero address");
1026
```



LINE 1022

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1021 address from,
1022 address to,
1023 uint256 amount
1024 ) private {
1025 require(from != address(0), "ERC20: transfer from the zero address");
1026
```



LINE 1197

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1196 tokenAmount,
1197 0, // slippage is unavoidable
1198 0, // slippage is unavoidable
1199 liquidityAddress,
1200 block.timestamp
1201
```



LINE 1197

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1196 tokenAmount,
1197 0, // slippage is unavoidable
1198 0, // slippage is unavoidable
1199 liquidityAddress,
1200 block.timestamp
1201
```



LINE 1407

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1406    _marketingTokensToSwap += tLiquidity * _buyMarketingFee / _liquidityFee;
1407    } else if(buyOrSellSwitch == SELL){
1408     _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;
1409     _marketingTokensToSwap += tLiquidity * _sellMarketingFee / _liquidityFee;
1410    }
1411
```



LINE 1408

low SEVERITY

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

Source File

- Chihirolnu.sol



LINE 1409

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1408    _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;
1409    _marketingTokensToSwap += tLiquidity * _sellMarketingFee / _liquidityFee;
1410  }
1411    uint256 currentRate = _getRate();
1412    uint256 rLiquidity = tLiquidity.mul(currentRate);
1413
```



LINE 1411

low SEVERITY

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

Source File

- Chihirolnu.sol

```
1410  }
1411  uint256 currentRate = _getRate();
1412  uint256 rLiquidity = tLiquidity.mul(currentRate);
1413  _rOwned[address(this)] = _rOwned[address(this)].add(rLiquidity);
1414  if (_isExcluded[address(this)])
1415
```



LINE 907

low 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

- Chihirolnu.sol

```
906    require(!tradingActive, "Trading is already active, cannot relaunch.");
907    require(presaleWallets.length < 200, "Can only airdrop 200 wallets per txn due to
gas limits"); // allows for airdrop + launch at the same exact time, reducing delays and
reducing sniper input.
908    for(uint256 i = 0; i < presaleWallets.length; i++){
909        address wallet = presaleWallets[i];
910        uint256 amount = amounts[i];
911</pre>
```



LINE 1056

low 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

- Chihirolnu.sol

```
1055 if (transferDelayEnabled){
1056 if (to != owner() && to != address(uniswapV2Router) && to !=
address(uniswapV2Pair)){
1057    require(_holderLastTransferTimestamp[to] < block.number, "_transfer:: Transfer
Delay enabled. Only one purchase per block allowed.");
1058    _holderLastTransferTimestamp[to] = block.number;
1059 }
1060</pre>
```



LINE 1068

low 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

- Chihirolnu.sol

```
if (to != address(uniswapV2Router) && !automatedMarketMakerPairs[to]) {
   require(balanceOf(to) + amount <= maxWalletSize, "Exceeds the maxWalletSize.");
   }
   //when sell
   else if (automatedMarketMakerPairs[to] && !_isExcludedMaxTransactionAmount[from])
{
   1072</pre>
```



LINE 1071

low 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

- Chihirolnu.sol



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