



XSPACE

# Smart Contract Audit Report

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# AUDITED DETAILS

## Audited Project

Project name	Token ticker	Blockchain
XSPACE	XSPACE	Binance Smart Chain

## Addresses

Contract address	0xad90c05bc51672eedfee36e58b3ff1a78bbc146d
Contract deployer address	0xaA9D8301140eD16Cf91948585cE6171aB6842A80

## Project Website

<https://twitter.com/xspaceofficial>

## Codebase

<https://bscscan.com/address/0xad90c05bc51672eedfee36e58b3ff1a78bbc146d#code>

# SUMMARY

## | Contract Summary

### Documentation Quality

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

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

### Code Quality

The Overall quality of the basecode is standard.

- Standard solidity basecode and rules are already followed by XSPACE 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 733.
- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 121, 153, 176, 177, 212, 248, 475, 716, 716, 716, 716, 717, 717, 736, 736, 736, 736, 737, 737, 737, 737, 868, 870, 907, 953, 972, 978 and 870.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 22.
- 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 869, 870, 870, 954, 954, 955, 956, 1081 and 1082.

## CONCLUSION

We have audited the XSPACE project released on April 2021 to discover issues and identify potential security vulnerabilities in XSPACE Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

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

The issues found in the XSPACE smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issues found are some arithmetic operation issues, a floating pragma is set, a state variable visibility is not set, and out-of-bounds array access which the index access expression can cause an exception in case of the use of an invalid array index value. The current pragma Solidity directive is `^0.6.12`. Specifying a fixed compiler version is recommended to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code. State variable visibility is not set, the best practice is to set the visibility of state variables explicitly. The default visibility for `inSwapAndLiquify` is internal. Other possible visibility settings are public and private.

# AUDIT RESULT

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

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

Typographical Error	SWC-129	A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable.	PASS
Override control character	SWC-130	Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract.	PASS
Unused variables	SWC-131 SWC-135	Unused variables are allowed in Solidity and they do not pose a direct security issue.	PASS
Unexpected Ether balance	SWC-132	Contracts can behave erroneously when they strictly assume a specific Ether balance.	PASS
Hash Collisions Variable	SWC-133	Using 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 Apr 01 2021 15:05:58 GMT+0000 (Coordinated Universal Time)
Finished	Friday Apr 02 2021 14:51:47 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	xSpace.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

[illegible]

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 121

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
120 function add(uint256 a, uint256 b) internal pure returns (uint256) {  
121     uint256 c = a + b;  
122     require(c >= a, "SafeMath: addition overflow");  
123  
124     return c;  
125 }
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 153

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
152   require(b <= a, errorMessage);  
153   uint256 c = a - b;  
154  
155   return c;  
156   }  
157
```

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

LINE 176

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
175
176  uint256 c = a * b;
177  require(c / a == b, "SafeMath: multiplication overflow");
178
179  return c;
180
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 177

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
176  uint256 c = a * b;  
177  require(c / a == b, "SafeMath: multiplication overflow");  
178  
179  return c;  
180  }  
181
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 212

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
211   require(b > 0, errorMessage);
212   uint256 c = a / b;
213   // assert(a == b * c + a % b); // There is no case in which this doesn't hold
214
215   return c;
216
```



# SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 248

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
247     require(b != 0, errorMessage);
248     return a % b;
249   }
250 }
251
252
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 475

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
474  _owner = address(0);  
475  _lockTime = now + time;  
476  emit OwnershipTransferred(_owner, address(0));  
477  }  
478  
479
```

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

LINE 716

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
715  uint256 private constant MAX = ~uint256(0);
716  uint256 private _tTotal = 1000000000 * 10**6 * 10**9;
717  uint256 private _rTotal = (MAX - (MAX % _tTotal));
718  uint256 private _tFeeTotal;
719
720
```

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

LINE 716

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
715  uint256 private constant MAX = ~uint256(0);
716  uint256 private _tTotal = 1000000000 * 10**6 * 10**9;
717  uint256 private _rTotal = (MAX - (MAX % _tTotal));
718  uint256 private _tFeeTotal;
719
720
```

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

LINE 716

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
715 uint256 private constant MAX = ~uint256(0);
716 uint256 private _tTotal = 1000000000 * 10**6 * 10**9;
717 uint256 private _rTotal = (MAX - (MAX % _tTotal));
718 uint256 private _tFeeTotal;
719
720
```

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

LINE 716

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
715  uint256 private constant MAX = ~uint256(0);
716  uint256 private _tTotal = 1000000000 * 10**6 * 10**9;
717  uint256 private _rTotal = (MAX - (MAX % _tTotal));
718  uint256 private _tFeeTotal;
719
720
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 717

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
716 uint256 private _tTotal = 1000000000 * 10**6 * 10**9;  
717 uint256 private _rTotal = (MAX - (MAX % _tTotal));  
718 uint256 private _tFeeTotal;  
719  
720 string private _name = "XSPACE";  
721
```

# SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 717

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
716  uint256 private _tTotal = 10000000000 * 10**6 * 10**9;  
717  uint256 private _rTotal = (MAX - (MAX % _tTotal));  
718  uint256 private _tFeeTotal;  
719  
720  string private _name = "XSPACE";  
721
```



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

LINE 736

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
735
736  uint256 public _maxTxAmount = 5000000 * 10**6 * 10**9;
737  uint256 private numTokensSellToAddToLiquidity = 500000 * 10**6 * 10**9;
738
739  event MinTokensBeforeSwapUpdated(uint256 minTokensBeforeSwap);
740
```

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

LINE 736

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
735
736  uint256 public _maxTxAmount = 5000000 * 10**6 * 10**9;
737  uint256 private numTokensSellToAddToLiquidity = 500000 * 10**6 * 10**9;
738
739  event MinTokensBeforeSwapUpdated(uint256 minTokensBeforeSwap);
740
```

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

LINE 736

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
735
736  uint256 public _maxTxAmount = 5000000 * 10**6 * 10**9;
737  uint256 private numTokensSellToAddToLiquidity = 500000 * 10**6 * 10**9;
738
739  event MinTokensBeforeSwapUpdated(uint256 minTokensBeforeSwap);
740
```

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

LINE 736

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
735
736  uint256 public _maxTxAmount = 5000000 * 10**6 * 10**9;
737  uint256 private numTokensSellToAddToLiquidity = 500000 * 10**6 * 10**9;
738
739  event MinTokensBeforeSwapUpdated(uint256 minTokensBeforeSwap);
740
```

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

LINE 737

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
736  uint256 public _maxTxAmount = 5000000 * 10**6 * 10**9;  
737  uint256 private numTokensSellToAddToLiquidity = 500000 * 10**6 * 10**9;  
738  
739  event MinTokensBeforeSwapUpdated(uint256 minTokensBeforeSwap);  
740  event SwapAndLiquifyEnabledUpdated(bool enabled);  
741
```

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

LINE 737

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
736  uint256 public _maxTxAmount = 5000000 * 10**6 * 10**9;  
737  uint256 private numTokensSellToAddToLiquidity = 500000 * 10**6 * 10**9;  
738  
739  event MinTokensBeforeSwapUpdated(uint256 minTokensBeforeSwap);  
740  event SwapAndLiquifyEnabledUpdated(bool enabled);  
741
```

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

LINE 737

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
736 uint256 public _maxTxAmount = 5000000 * 10**6 * 10**9;  
737 uint256 private numTokensSellToAddToLiquidity = 500000 * 10**6 * 10**9;  
738  
739 event MinTokensBeforeSwapUpdated(uint256 minTokensBeforeSwap);  
740 event SwapAndLiquifyEnabledUpdated(bool enabled);  
741
```

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

LINE 737

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
736 uint256 public _maxTxAmount = 5000000 * 10**6 * 10**9;  
737 uint256 private numTokensSellToAddToLiquidity = 500000 * 10**6 * 10**9;  
738  
739 event MinTokensBeforeSwapUpdated(uint256 minTokensBeforeSwap);  
740 event SwapAndLiquifyEnabledUpdated(bool enabled);  
741
```



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

LINE 868

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
867   require(!_isExcluded[account], "Account is already excluded");
868   for (uint256 i = 0; i < _excluded.length; i++) {
869     if (_excluded[i] == account) {
870       _excluded[i] = _excluded[_excluded.length - 1];
871       _tOwned[account] = 0;
872     }
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 870

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
869     if (_excluded[i] == account) {  
870         _excluded[i] = _excluded[_excluded.length - 1];  
871         _tOwned[account] = 0;  
872         _isExcluded[account] = false;  
873         _excluded.pop();  
874     }
```

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

LINE 907

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
906     _maxTxAmount = _tTotal.mul(maxTxPercent).div(  
907     10**2  
908     );  
909 }  
910  
911
```

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

LINE 953

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
952  uint256 tSupply = _tTotal;
953  for (uint256 i = 0; i < _excluded.length; i++) {
954    if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return
    (_rTotal, _tTotal);
955    rSupply = rSupply.sub(_rOwned[_excluded[i]]);
956    tSupply = tSupply.sub(_tOwned[_excluded[i]]);
957
```

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

LINE 972

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
971     return _amount.mul(_taxFee).div(  
972         10**2  
973     );  
974 }  
975  
976
```

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

LINE 978

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
977     return _amount.mul(_liquidityFee).div(  
978         10**2  
979     );  
980 }  
981  
982
```

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

LINE 870

## low SEVERITY

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

## Source File

- xSpace.sol

## Locations

```
869     if (_excluded[i] == account) {  
870         _excluded[i] = _excluded[_excluded.length - 1];  
871         _tOwned[account] = 0;  
872         _isExcluded[account] = false;  
873         _excluded.pop();  
874     }
```

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

LINE 22

### low SEVERITY

The current pragma Solidity directive is `""^0.6.12""`. 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

- xSpace.sol

### Locations

```
21  **/  
22  pragma solidity ^0.6.12;  
23  // SPDX-License-Identifier: Unlicensed  
24  interface IERC20 {  
25  
26
```



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

LINE 733

### 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

- xSpace.sol

### Locations

```
732
733     bool inSwapAndLiquify;
734     bool public swapAndLiquifyEnabled = true;
735
736     uint256 public _maxTxAmount = 5000000 * 10**6 * 10**9;
737
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 869

### low SEVERITY

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

### Source File

- xSpace.sol

### Locations

```
868   for (uint256 i = 0; i < _excluded.length; i++) {  
869     if (_excluded[i] == account) {  
870       _excluded[i] = _excluded[_excluded.length - 1];  
871       _tOwned[account] = 0;  
872       _isExcluded[account] = false;  
873     }
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 870

### low SEVERITY

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

### Source File

- xSpace.sol

### Locations

```
869     if (_excluded[i] == account) {  
870         _excluded[i] = _excluded[_excluded.length - 1];  
871         _tOwned[account] = 0;  
872         _isExcluded[account] = false;  
873         _excluded.pop();  
874     }
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 870

### low SEVERITY

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

### Source File

- xSpace.sol

### Locations

```
869     if (_excluded[i] == account) {  
870         _excluded[i] = _excluded[_excluded.length - 1];  
871         _tOwned[account] = 0;  
872         _isExcluded[account] = false;  
873         _excluded.pop();  
874     }
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 954

### low SEVERITY

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

### Source File

- xSpace.sol

### Locations

```
953   for (uint256 i = 0; i < _excluded.length; i++) {  
954     if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return  
      (_rTotal, _tTotal);  
955     rSupply = rSupply.sub(_rOwned[_excluded[i]]);  
956     tSupply = tSupply.sub(_tOwned[_excluded[i]]);  
957   }  
958
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 954

### low SEVERITY

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

### Source File

- xSpace.sol

### Locations

```
953   for (uint256 i = 0; i < _excluded.length; i++) {  
954     if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return  
      (_rTotal, _tTotal);  
955     rSupply = rSupply.sub(_rOwned[_excluded[i]]);  
956     tSupply = tSupply.sub(_tOwned[_excluded[i]]);  
957   }  
958
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 955

### low SEVERITY

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

### Source File

- xSpace.sol

### Locations

```
954   if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return
      (_rTotal, _tTotal);
955   rSupply = rSupply.sub(_rOwned[_excluded[i]]);
956   tSupply = tSupply.sub(_tOwned[_excluded[i]]);
957   }
958   if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
959
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 956

### low SEVERITY

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

### Source File

- xSpace.sol

### Locations

```
955   rSupply = rSupply.sub(_rOwned[_excluded[i]]);
956   tSupply = tSupply.sub(_tOwned[_excluded[i]]);
957   }
958   if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
959   return (rSupply, tSupply);
960
```



## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1081

### low SEVERITY

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

### Source File

- xSpace.sol

### Locations

```
1080     address[] memory path = new address[](2);
1081     path[0] = address(this);
1082     path[1] = uniswapV2Router.WETH();
1083
1084     _approve(address(this), address(uniswapV2Router), tokenAmount);
1085
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1082

### low SEVERITY

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

### Source File

- xSpace.sol

### Locations

```
1081 path[0] = address(this);
1082 path[1] = uniswapV2Router.WETH();
1083
1084 _approve(address(this), address(uniswapV2Router), tokenAmount);
1085
1086
```

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