



# **RugFreeCoins Audit**



**Sports Verse Token  
Smart Contract Security Audit**

**September 13 2022**



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# Audit details



**Audited project**  
Sportsverse Token



**Contract Address**  
0x374827A70f08805650f2408B4aaC1B490275eF0B



**Client contact**  
Sportsverse Team



**Blockchain**  
Binance smart chain



**Project website**  
<https://sportsverse.me/>

# Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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# Overview

- ✓ No mint function found; the owner cannot mint tokens after initial deployment.
- ✓ There are no max tx limits and max wallet limits in the contract.
- ✓ The owner can't pause trading.
- ✓ The owner can't set fees over 25%.
- ✓ Owner can't blacklist wallets.
- ✓ The owner can't claim the contract's balance of its own token.

# Background

Rugfreecoins was commissioned by the Sportsverse Team to perform an audit of the smart contract.

**<https://bscscan.com/token/0x374827A70f08805650f2408B4aaC1B490275eF0B>**

The focus of this audit is to verify that the smart contract is secure, resilient, and working according to the specifications.

The information in this report should be used to understand the risk exposure of the smart contract, project feasibility, and long-term sustainability, and as a guide to improving the security posture of the smart contract by remediating the issues that were identified.

# Tokenomics

## 10% when buying & selling

- 2% of trade goes to the Ecosystem fund wallet in BNB.
- 3% of trade goes to the Marketing, Maintenance & Management Wallet in BNB.

# Target market and the concept

## Target market

- Anyone who's interested in the Crypto space with long-term investment plans.
- Anyone who's ready to earn a passive income by holding tokens.
- Anyone who's interested in trading tokens.
- Anyone who's ready to take part in Sportverse game and receiving rewards.
- Anyone who's interested in taking part in the future plans of the Sportsverse.
- Anyone who's interested in making financial transactions with any other party using Sportsverse Token as the currency.



# Potential to grow with score points

|              |   |             |
|--------------|---|-------------|
| 1.           | Project efficiency                      | 9/10        |
| 2.           | Project uniqueness                      | 9/10        |
| 3            | Information quality                     | 9/10        |
| 4            | Service quality                         | 9/10        |
| 5            | System quality                          | 8/10        |
| 6            | Impact on the community                 | 8/10        |
| 7            | Impact on the business                  | 9/10        |
| 8            | Preparing for the future                | 9/10        |
| 9            | Smart contract security                 | 10/10       |
| 10           | Smart contract functionality assessment | 10/10       |
| Total Points |   | <b>9/10</b> |

# Contract details

## Token contract details for 13<sup>th</sup> of September 2022

|                                  |  |
|----------------------------------|--|
| Contract name                    | Sportsverse                                |
| Contract address                 | 0x374827A70f08805650f2408B4aaC1B490275eF0B |
| Token supply                     | 1,000,000,000                              |
| Token ticker                     | SV   |
| Decimals                         | 18   |
| Token holders                    | 3  |
| Transaction count                | 4  |
| Ecosystem wallet                 | 0xf1816468234d473d4bb581a2b9638613d57a7afb |
| Marketing wallet                 | 0x45cb6fbbaca2951f57b384ffb1596b467516aaa8 |
| Contract deployer address        | 0xb58ced7120dad8a6a04968577ec1daf00a707795 |
| Contract's current owner address | 0xb58ced7120dad8a6a04968577ec1daf00a707795 |









# Contract code function details

| No | Category                              | Item   | Result |
|----|---------------------------------------|--|--------|
| 1  | Coding conventions                    | BRC20 Token standards                            | pass   |
|    |                                       | compile errors                                   | pass   |
|    |                                       | Compiler version security                        | pass   |
|    |                                       | visibility specifiers                            | pass   |
|    |                                       | Gas consumption                                  | pass   |
|    |                                       | SafeMath features                                | pass   |
|    |                                       | Fallback usage                                   | pass   |
|    |                                       | tx.origin usage                                  | pass   |
|    |                                       | deprecated items                                 | pass   |
|    |                                       | Redundant code                                   | pass   |
|    |                                       | Overriding variables                             | pass   |
| 2  | Function call audit                   | Authorization of function call                   | pass   |
|    |                                       | Low level function (call/delegate call) security | pass   |
|    |                                       | Returned value security                          | pass   |
|    |                                       | Self-destruct function security                  | pass   |
| 3  | Business security                     | Access control of owners                         |        |
|    |                                       | Business logics                                  | pass   |
|    |                                       | Business implementations                         | pass   |
| 4  | Integer overflow/underflow            |  | pass   |
| 5  | Reentrancy                            |  | pass   |
| 6  | Exceptional reachable state           |  | pass   |
| 7  | Transaction ordering dependence       |  | pass   |
| 8  | Block properties dependence           |  | pass   |
| 9  | Pseudo random number generator (PRNG) |  | pass   |
| 10 | DoS (Denial of Service)               |  | pass   |
| 11 | Token vesting implementation          |  | pass   |
| 12 | Fake deposit                          |  | pass   |

|    |                |  |      |
|----|----------------|--|------|
| 13 | Event security |  | pass |
|----|----------------|--|------|

















# Contract description table




































The below table represents the summary of the contracts and methods in the token contract. We scanned the whole contract and listed down all the Interfaces, functions, and implementations with their visibility and mutability.
















| Contract    | Type           | Bases  |   |           |
|-------------|----------------|--|---|-----------|
| L           | Function Name  | Visibility   | Mutability  | Modifiers |
|             |                |  |   |           |
| Sportsverse | Implementation | IERC20, Ownable  |   |           |
| L           |                | Public !   |    | NO !      |
| L           |                | External !   |    | NO !      |
| L           | totalSupply    | External !   |   | NO !      |
| L           | name           | Public !   |   | NO !      |
| L           | symbol         | Public !   |   | NO !      |
| L           | decimals       | Public !   |   | NO !      |
| L           | currentBalance | Public !   |   | NO !      |
| L           | balanceOf      | Public !   |   | NO !      |
| L           | allowance      | External !   |   | NO !      |
| L           | approve        | Public !   |  | NO !      |
| L           | _approve       | Internal  |  |           |
| L           | approveMax     | External !   |  | NO !      |
| L           | transfer       | External !   |  | NO !      |
| L           | transferFrom   | External !   |  | NO !      |

| L       | _transferFrom         | Internal 🔒 | 🛑 |           |
|---------|-----------------------|------------|---|-----------|
| L       | _basicTransfer        | Internal 🔒 | 🛑 |           |
| L       | shouldTakeFee         | Internal 🔒 |   |           |
| L       | takeFee               | Internal 🔒 | 🛑 |           |
| L       | shouldSwapBack        | Internal 🔒 |   |           |
| L       | clearStuckBalance     | External ! | 🛑 | onlyOwner |
| L       | updateFees            | Public !   | 🛑 | onlyOwner |
| L       | updateSwapAmounts     | Public !   | 🛑 | onlyOwner |
| L       | enableTrading         | Public !   | 🛑 | onlyOwner |
| L       | whitelistPreSale      | Public !   | 🛑 | onlyOwner |
| L       | swapBackInBnb         | Internal 🔒 | 🛑 | swapping  |
| L       | swapTokensForEth      | Private 🔒  | 🛑 |           |
| L       | setIsFeeExempt        | External ! | 🛑 | onlyOwner |
| L       | changeMarketingWallet | External ! | 🛑 | onlyOwner |
| L       | changeEcosystemWallet | External ! | 🛑 | onlyOwner |
| L       | setSwapBackSettings   | External ! | 🛑 | onlyOwner |
|         |                       |            |   |           |
| Ownable | Implementation        | Context    |   |           |
| L       |                       | Public !   | 🛑 | NO !      |
| L       | owner                 | Public !   |   | NO !      |
| L       | _checkOwner           | Internal 🔒 |   |           |





|                 |                    |  |   |           |
|-----------------|--------------------|--|---|-----------|
| L               | renounceOwnership  | Public !   |    | onlyOwner |
| L               | transferOwnership  | Public !   |    | onlyOwner |
| L               | _transferOwnership | Internal    |    |           |
|                 |                    |  |   |           |
| <b>IERC20</b>   | <b>Interface</b>   |  |   |           |
| L               | totalSupply        | External !   |   | NO !      |
| L               | balanceOf          | External !   |   | NO !      |
| L               | transfer           | External !   |    | NO !      |
| L               | allowance          | External !   |   | NO !      |
| L               | approve            | External !   |    | NO !      |
| L               | transferFrom       | External !   |  | NO !      |
|                 |                    |  |   |           |
| <b>SafeMath</b> | <b>Library</b>     |  |   |           |
| L               | tryAdd             | Internal  |   |           |
| L               | trySub             | Internal  |   |           |
| L               | tryMul             | Internal  |   |           |
| L               | tryDiv             | Internal  |   |           |
| L               | tryMod             | Internal  |   |           |
| L               | add                | Internal  |   |           |
| L               | sub                | Internal  |   |           |
| L               | mul                | Internal  |   |           |
| L               | div                | Internal  |   |           |

|                           |   |  |   |  |
|---------------------------|---|--|---|--|
| L                         | mod   | Internal    |   |  |
| L                         | sub   | Internal    |   |  |
| L                         | div   | Internal    |   |  |
| L                         | mod   | Internal    |   |  |
|                           |   |  |   |  |
| <b>IUniswapV2Router02</b> | <b>Interface</b>  | <b>IUniswapV2Router01</b>  |   |  |
| L                         | removeLiquidityETHSupportingFeeOnTransferTokens           | External    |    | NO    |
| L                         | removeLiquidityETHWithPermitSupportingFeeOnTransferTokens | External    |    | NO    |
| L                         | swapExactTokensForTokensSupportingFeeOnTransferTokens     | External    |    | NO    |
| L                         | swapExactETHForTokensSupportingFeeOnTransferTokens        | External    |    | NO    |
| L                         | swapExactTokensForETHSupportingFeeOnTransferTokens        | External  |  | NO  |
|                           |   |  |   |  |
| <b>IUniswapV2Factory</b>  | <b>Interface</b>  |  |   |  |
| L                         | feeTo   | External  |   | NO  |
| L                         | feeToSetter   | External  |   | NO  |
| L                         | getPair   | External  |   | NO  |
| L                         | allPairs  | External  |   | NO  |
| L                         | allPairsLength  | External  |   | NO  |
| L                         | createPair  | External  |  | NO  |
| L                         | setFeeTo  | External  |  | NO  |

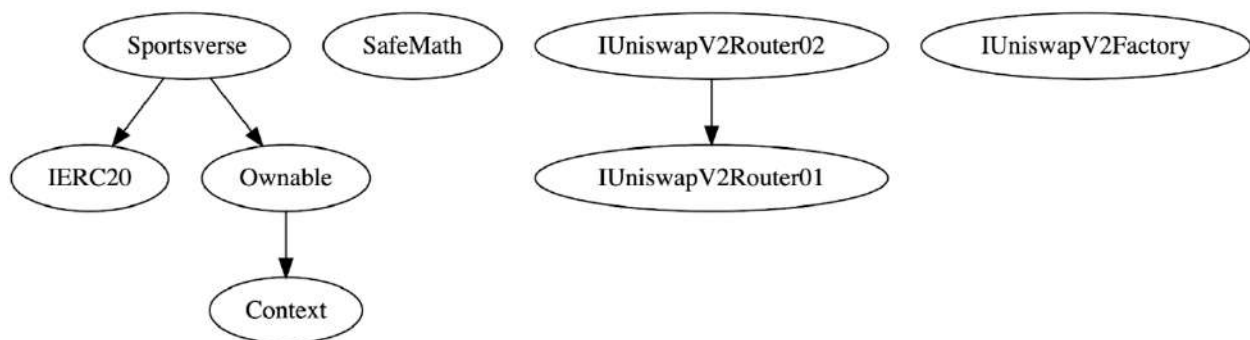
|                           |                              |  |   |      |
|---------------------------|------------------------------|--|---|------|
| L                         | setFeeToSetter               | External !   |    | NO ! |
|                           |                              |  |   |      |
| <b>Context</b>            | <b>Implementation</b>        |  |   |      |
| L                         | _msgSender                   | Internal  |   |      |
| L                         | _msgData                     | Internal  |   |      |
|                           |                              |  |   |      |
| <b>IUniswapV2Router01</b> | <b>Interface</b>             |  |   |      |
| L                         | factory                      | External !   |   | NO ! |
| L                         | WETH                         | External !   |   | NO ! |
| L                         | addLiquidity                 | External !   |    | NO ! |
| L                         | addLiquidityETH              | External !   |   | NO ! |
| L                         | removeLiquidity              | External !   |  | NO ! |
| L                         | removeLiquidityETH           | External !   |  | NO ! |
| L                         | removeLiquidityWithPermit    | External !   |  | NO ! |
| L                         | removeLiquidityETHWithPermit | External !   |  | NO ! |
| L                         | swapExactTokensForTokens     | External !   |  | NO ! |
| L                         | swapTokensForExactTokens     | External !   |  | NO ! |
| L                         | swapExactETHForTokens        | External !   |  | NO ! |
| L                         | swapTokensForExactETH        | External !   |  | NO ! |
| L                         | swapExactTokensForETH        | External !   |  | NO ! |
| L                         | swapETHForExactTokens        | External !   |  | NO ! |

|   |               |            |  |      |
|---|---------------|------------|--|------|
| L | quote         | External ! |  | NO ! |
| L | getAmountOut  | External ! |  | NO ! |
| L | getAmountIn   | External ! |  | NO ! |
| L | getAmountsOut | External ! |  | NO ! |
| L | getAmountsIn  | External ! |  | NO ! |

## Legend

| Symbol  | Meaning                   |
|---|---------------------------|
|  | Function can modify state |
|  | Function is payable       |

## Inheritance Hierarchy



# Security issue checking status

## ❖ High severity issues

No High severity issues found

## ❖ Medium severity issues

No medium severity issues found

## ❖ Low severity issues

No low severity issues found

## ❖ Centralization Risk

No Centralization Risk found

# Owner privileges

- ❖ Owner can get contract bnb balance to owner wallet

```
ftrace | funcSig
function clearStuckBalance(uint256 amountPercentage↑) external onlyOwner {
    uint256 amountBNB = address(this).balance;
    payable(msg.sender).transfer((amountBNB * amountPercentage↑) / 100);
}
```

- ❖ Owner can update buy and sell fees, total fees maximum up to 25%

```
ftrace | funcSig
function updateFees(uint256 buyFee↑, uint256 sellFee↑) public onlyOwner {
    buyTotalFees = buyFee↑;
    sellTotalFees = sellFee↑;

    require(
        buyTotalFees.add(sellTotalFees) <= 25,
        "Total Fees can not be grater than 25%"
    );
}
```

- ❖ Owner can change all swap percentages

```
ftrace | funcSig
function updateSwapAmounts(uint256 _ecosystemSwap↑, uint256 _marketingSwap↑)
    public
    onlyOwner
{
    ecosystemSwap = _ecosystemSwap↑;
    marketingSwap = _marketingSwap↑;

    totalSwap = _ecosystemSwap↑.add(_marketingSwap↑);
}
```



- ❖ Owner can enable trading, once enabled cannot disable again

```
// switch Trading
ftrace | funcSig
function enableTrading() public onlyOwner {
    tradingOpen = true;
}
```

- ❖ Owner can whitelist pre-sale address

```
ftrace | funcSig
function whitelistPreSale(address _preSale↑) public onlyOwner {
    isFeeExempt[_preSale↑] = true;
    isAuthorized[_preSale↑] = true;
}
```

- ❖ Owner can exclude/include wallets from fees

```
ftrace | funcSig
function setIsFeeExempt(address holder↑, bool exempt↑) external onlyOwner {
    isFeeExempt[holder↑] = exempt↑;
}
```

- ❖ Owner can change marketing wallet

```
ftrace | funcSig
function changeMarketingWallet(address _marketingFeeReceiver↑)
    external
    onlyOwner
{
    marketingFeeReceiver = _marketingFeeReceiver↑;
}
```

- ❖ Owner can change eco system wallet

```
ftrace | funcSig
function changeEcosystemWallet(address newWallet↑) external onlyOwner {
    ecoSystemWallet = newWallet↑;
}
```

- ❖ Owner can enable/disable swapping and can change swap point

```
ftrace | funcSig
function setSwapBackSettings(bool _enabled↑, uint256 _amount↑)
    external
    onlyOwner
{
    swapEnabled = _enabled↑;
    swapThreshold = _amount↑;
}
```

# Audit conclusion

RugFreeCoins team has performed in-depth testings, line-by-line manual code review, and automated audit of the smart contract. The smart contract was analyzed mainly for common smart contract vulnerabilities, exploits, manipulations, and hacks. According to the smart contract audit.

Smart contract functional Status: **PASS**

Number of risk issues: **0**

Solidity code functional issue level: **PASS**

Number of owner privileges:

Centralization risk correlated to the active owner: **LOW**

Smart contract active ownership: **YES**