



Cyberscope

# Audit Report

## **Robotcat**

April 2022

Type       BEP20

Network     BSC

Address     0x09cA04e09d3232F542B49CBEA4905635BCec89c0

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## Contract Review

|                         |                                                                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Contract Name</b>    | RobotCat                                                                                                                                                |
| <b>Compiler Version</b> | v0.8.9+commit.e5eed63a                                                                                                                                  |
| <b>Optimization</b>     | 200 runs                                                                                                                                                |
| <b>Licence</b>          | None                                                                                                                                                    |
| <b>Explorer</b>         | <a href="https://bscscan.com/token/0x09cA04e09d3232F542B49CBEA4905635BCec89c0">https://bscscan.com/token/0x09cA04e09d3232F542B49CBEA4905635BCec89c0</a> |
| <b>Symbol</b>           | RobotCat                                                                                                                                                |
| <b>Decimals</b>         | 9                                                                                                                                                       |
| <b>Total Supply</b>     | 1,000,000,000,000                                                                                                                                       |
| <b>Domain</b>           | robotcat.store                                                                                                                                          |

## Source Files

|                     |                                                                      |
|---------------------|----------------------------------------------------------------------|
| <b>Filename</b>     | <b>SHA256</b>                                                        |
| <b>contract.sol</b> | 95d4c5a41de54db7680b491dccd1e8af633de850996a<br>bd077b49b6e58600053b |

## Audit Updates

|                      |                 |
|----------------------|-----------------|
| <b>Initial Audit</b> | 27th April 2022 |
| <b>Corrected</b>     |                 |

# Contract Analysis

● Critical   ● Medium   ● Minor   ● Pass

| Severity | Code | Description                                                                                                       |
|----------|------|-------------------------------------------------------------------------------------------------------------------|
| ●        | ST   | Contract Owner is not able to stop or pause transactions                                                          |
| ●        | OCTD | Contract Owner is not able to transfer tokens from specific address                                               |
| ●        | OTUT | Owner Transfer User's Tokens                                                                                      |
| ●        | ELFM | Contract Owner is not able to increase fees more than a reasonable percent (25%)                                  |
| ●        | ULTW | Contract Owner is not able to increase the amount of liquidity taken by dev wallet more than a reasonable percent |
| ●        | MT   | Contract Owner is not able to mint new tokens                                                                     |
| ●        | BT   | Contract Owner is not able to burn tokens from specific wallet                                                    |
| ●        | BC   | Contract Owner is not able to blacklist wallets from selling                                                      |

## OCTD - Owner Contract Tokens Drain

|             |                       |
|-------------|-----------------------|
| Criticality | minor                 |
| Location    | contract.sol#L390,396 |

### Description

The contract owner has the authority to claim all the balance of the contract. The owner may take advantage of it by calling the `manualswap` or `manualsend` functions.

```
function manualswap() external {
    require(_msgSender() == _developmentAddress || _msgSender() ==
_marketingAddress || _msgSender() == owner());
    uint256 contractBalance = balanceOf(address(this));
    swapTokensForEth(contractBalance);
}

function manualsend() external {
    require(_msgSender() == _developmentAddress || _msgSender() ==
_marketingAddress || _msgSender() == owner());
    uint256 contractETHBalance = address(this).balance;
    sendETHToFee(contractETHBalance);
}
```

### Recommendation

The team should carefully manage the private keys of the owner's account. We strongly recommend a powerful security mechanism that will prevent a single user from accessing the contract admin functions. That risk can be prevented by temporarily locking the contract or renouncing ownership.

# Contract Diagnostics

● Critical    ● Medium    ● Minor

| Severity | Code | Description                                |
|----------|------|--------------------------------------------|
| ●        | L01  | Public Function could be Declared External |
| ●        | L02  | State Variables could be Declared Constant |
| ●        | L04  | Conformance to Solidity Naming Conventions |
| ●        | L05  | Unused State Variable                      |

## L01 - Public Function could be Declared External

|                    |                                                                               |
|--------------------|-------------------------------------------------------------------------------|
| <b>Criticality</b> | minor                                                                         |
| <b>Location</b>    | contract.sol#L110,116,184,188,192,196,204,209,213,218,300,306,313,387,398,402 |

### Description

Public functions that are never called by the contract should be declared external to save gas.

```
excludeMultipleAccountsFromFees
toggleSwap
setFee
setNewMarketingAddress
setNewDevAddress
rescueForeignTokens
transferFrom
approve
allowance
...
```

### Recommendation

Use the external attribute for functions never called from the contract.

## L02 - State Variables could be Declared Constant

**Criticality**

minor

**Location**

contract.sol#L93

### Description

Constant state variables should be declared constant to save gas.

```
_previousOwner
```

### Recommendation

Add the constant attribute to state variables that never change.

## L04 - Conformance to Solidity Naming Conventions

**Criticality**

minor

**Location**

contract.sol#L34,299,305,312,300,398,132,145,146,147

### Description

Solidity defines a naming convention that should be followed. Rule exceptions:

- Allow constant variable name/symbol/decimals to be lowercase.
- Allow \_ at the beginning of the mixed\_case match for private variables and unused parameters.

```
_decimals  
_symbol  
_name  
_tTotal  
_swapEnabled  
_amount  
_to  
_tokenAddr  
marketingAddressUpdated  
...
```

### Recommendation

Follow the Solidity naming convention.

<https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions>

## L05 - Unused State Variable

**Criticality**

minor

**Location**

contract.sol#L93,127

### Description

There are segments that contain unused state variables.

```
_tOwned  
_previousOwner
```

### Recommendation

Remove unused state variables.

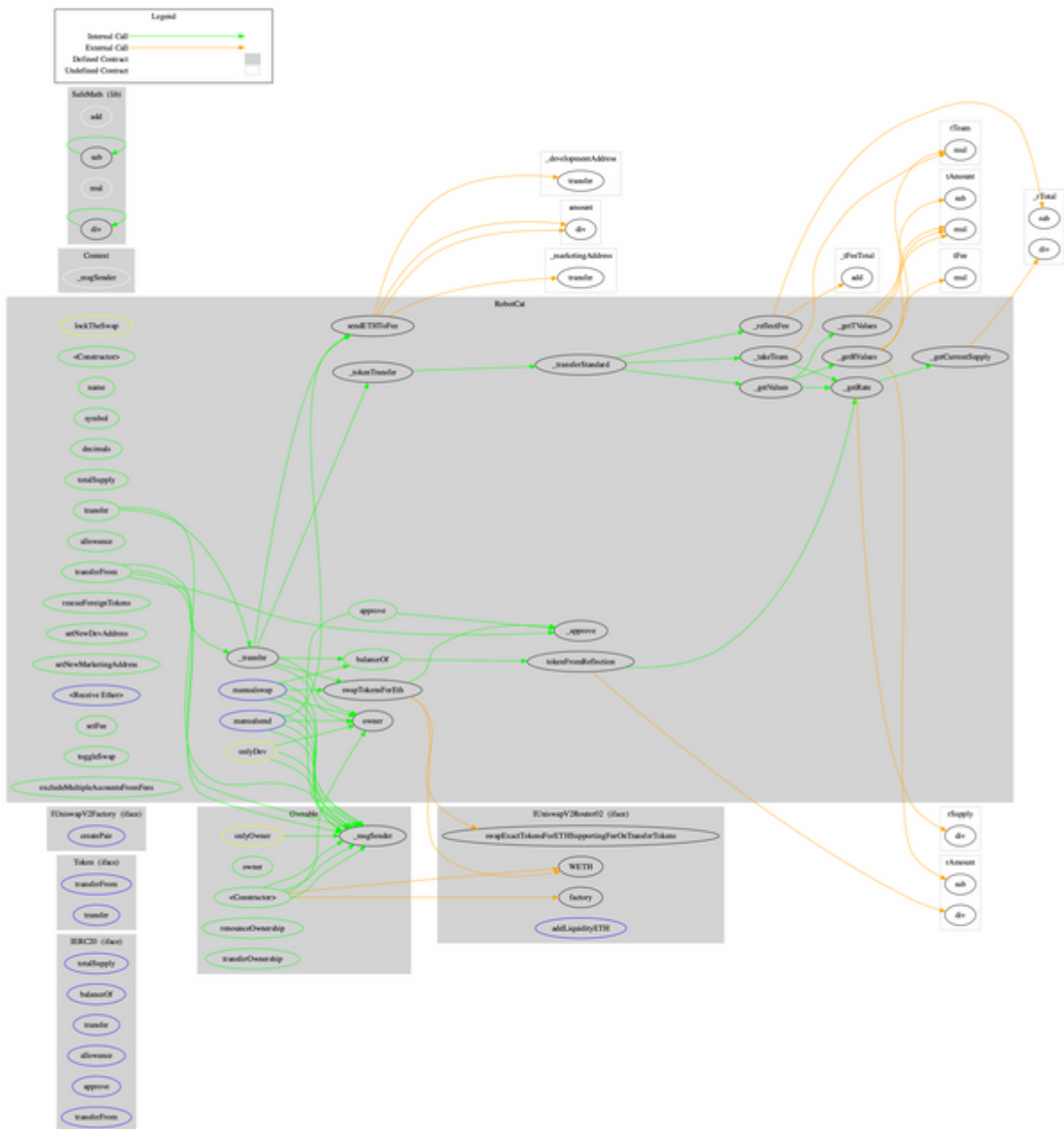
# Contract Functions

| Contract                  | Type                                               | Bases      |            |           |
|---------------------------|----------------------------------------------------|------------|------------|-----------|
|                           | Function Name                                      | Visibility | Mutability | Modifiers |
| <b>IERC20</b>             | Interface                                          |            |            |           |
|                           | totalSupply                                        | External   |            | -         |
|                           | balanceOf                                          | External   |            | -         |
|                           | transfer                                           | External   | ✓          | -         |
|                           | allowance                                          | External   |            | -         |
|                           | approve                                            | External   | ✓          | -         |
|                           | transferFrom                                       | External   | ✓          | -         |
| <b>Token</b>              | Interface                                          |            |            |           |
|                           | transferFrom                                       | External   | ✓          | -         |
|                           | transfer                                           | External   | ✓          | -         |
| <b>IUniswapV2Factory</b>  | Interface                                          |            |            |           |
|                           | createPair                                         | External   | ✓          | -         |
| <b>IUniswapV2Router02</b> | Interface                                          |            |            |           |
|                           | swapExactTokensForETHSupportingFeeOnTransferTokens | External   | ✓          | -         |
|                           | factory                                            | External   |            | -         |
|                           | WETH                                               | External   |            | -         |
|                           | addLiquidityETH                                    | External   | Payable    | -         |
|                           |                                                    |            |            |           |
| <b>Context</b>            | Implementation                                     |            |            |           |
|                           | _msgSender                                         | Internal   |            |           |
| <b>SafeMath</b>           | Library                                            |            |            |           |
|                           | add                                                | Internal   |            |           |
|                           | sub                                                | Internal   |            |           |

|                 |                        |                                |   |             |
|-----------------|------------------------|--------------------------------|---|-------------|
|                 | sub                    | Internal                       |   |             |
|                 | mul                    | Internal                       |   |             |
|                 | div                    | Internal                       |   |             |
|                 | div                    | Internal                       |   |             |
|                 |                        |                                |   |             |
| <b>Ownable</b>  | Implementation         | Context                        |   |             |
|                 | <Constructor>          | Public                         | ✓ | -           |
|                 | owner                  | Public                         |   | -           |
|                 | renounceOwnership      | Public                         | ✓ | onlyOwner   |
|                 | transferOwnership      | Public                         | ✓ | onlyOwner   |
|                 |                        |                                |   |             |
| <b>RobotCat</b> | Implementation         | Context,<br>IERC20,<br>Ownable |   |             |
|                 | <Constructor>          | Public                         | ✓ | -           |
|                 | name                   | Public                         |   | -           |
|                 | symbol                 | Public                         |   | -           |
|                 | decimals               | Public                         |   | -           |
|                 | totalSupply            | Public                         |   | -           |
|                 | balanceOf              | Public                         |   | -           |
|                 | transfer               | Public                         | ✓ | -           |
|                 | allowance              | Public                         |   | -           |
|                 | approve                | Public                         | ✓ | -           |
|                 | transferFrom           | Public                         | ✓ | -           |
|                 | tokenFromReflection    | Private                        |   |             |
|                 | _approve               | Private                        | ✓ |             |
|                 | _transfer              | Private                        | ✓ |             |
|                 | swapTokensForEth       | Private                        | ✓ | lockTheSwap |
|                 | sendETHToFee           | Private                        | ✓ |             |
|                 | _tokenTransfer         | Private                        | ✓ |             |
|                 | rescueForeignTokens    | Public                         | ✓ | onlyDev     |
|                 | setNewDevAddress       | Public                         | ✓ | onlyDev     |
|                 | setNewMarketingAddress | Public                         | ✓ | onlyDev     |
|                 | _transferStandard      | Private                        | ✓ |             |
|                 | _takeTeam              | Private                        | ✓ |             |
|                 | _reflectFee            | Private                        | ✓ |             |

|  |                                 |          |         |           |
|--|---------------------------------|----------|---------|-----------|
|  | <Receive Ether>                 | External | Payable | -         |
|  | _getValues                      | Private  |         |           |
|  | _getTValues                     | Private  |         |           |
|  | _getRValues                     | Private  |         |           |
|  | _getRate                        | Private  |         |           |
|  | _getCurrentSupply               | Private  |         |           |
|  | manualswap                      | External | ✓       | -         |
|  | manualsend                      | External | ✓       | -         |
|  | setFee                          | Public   | ✓       | onlyDev   |
|  | toggleSwap                      | Public   | ✓       | onlyDev   |
|  | excludeMultipleAccountsFromFees | Public   | ✓       | onlyOwner |

# Contract Flow



## Domain Info

|                               |                                                                 |
|-------------------------------|-----------------------------------------------------------------|
| <b>Domain Name</b>            | robotcat.store                                                  |
| <b>Registry Domain ID</b>     | D292605029-CNIC                                                 |
| <b>Creation Date</b>          | 2022-04-21T07:56:27+00:00                                       |
| <b>Updated Date</b>           | 2022-04-21T07:56:29+00:00                                       |
| <b>Registry Expiry Date</b>   | 2023-04-21T23:59:59+00:00                                       |
| <b>Registrar WHOIS Server</b> | whois.godaddy.com                                               |
| <b>Registrar URL</b>          | <a href="https://www.godaddy.com/">https://www.godaddy.com/</a> |
| <b>Registrar</b>              | Go Daddy, LLC                                                   |
| <b>Registrar IANA ID</b>      | 146                                                             |

The domain has been created 6 days before the creation of the audit. It will expire in 12 months.

There is no public billing information, the creator is protected by the privacy settings.

## Summary

Robotcat is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The ownership is present and the team can manually drain the contract's balance from accumulated fees. There is also a limit of max 16% fees.

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Coinscope audit and K.Y.C. service has been rebranded to Cyberscope.

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Cyberscope and Coinscope are aiming to make crypto discoverable and efficient globally. They provides all the essential tools to assist users draw their own conclusions.



The Cyberscope team

<https://www.cyberscope.io>