



Cyberscope

# Audit Report

## **Drive To Earn**

May 2022

Type       BEP20

Network     BSC

Address     0xbbfd1c566db78b951f9b0af9e313838060416892

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# Table of Contents

<b>Table of Contents</b>	<b>1</b>
<b>Contract Review</b>	<b>3</b>
<b>Source Files</b>	<b>3</b>
<b>Audit Updates</b>	<b>3</b>
<b>Contract Analysis</b>	<b>4</b>
<b>Contract Diagnostics</b>	<b>5</b>
<b>FSA - Fixed Swap Address</b>	<b>6</b>
Description	6
Recommendation	6
<b>L01 - Public Function could be Declared External</b>	<b>7</b>
Description	7
Recommendation	7
<b>L04 - Conformance to Solidity Naming Conventions</b>	<b>8</b>
Description	8
Recommendation	8
<b>L07 - Missing Events Arithmetic</b>	<b>9</b>
Description	9
Recommendation	9
<b>L08 - Tautology or Contradiction</b>	<b>10</b>
Description	10
Recommendation	10
<b>L09 - Dead Code Elimination</b>	<b>11</b>
Description	11
Recommendation	11
<b>Contract Functions</b>	<b>12</b>
<b>Contract Flow</b>	<b>17</b>

<b>Summary</b>	<b>18</b>
<b>Disclaimer</b>	<b>19</b>
<b>About Cyberscope</b>	<b>20</b>

## Contract Review

<b>Contract Name</b>	LiquidityGeneratorToken
<b>Compiler Version</b>	v0.8.4+commit.c7e474f2
<b>Optimization</b>	200 runs
<b>Licence</b>	MIT
<b>Explorer</b>	<a href="https://bscscan.com/token/0xbbfd1c566db78b951f9b0af9e313838060416892">https://bscscan.com/token/0xbbfd1c566db78b951f9b0af9e313838060416892</a>
<b>Symbol</b>	Drive
<b>Decimals</b>	9
<b>Total Supply</b>	1,000,000,000
<b>Domain</b>	

## Source Files

<b>Filename</b>	<b>SHA256</b>
<b>contract.sol</b>	69d66bbe11e8f0687c87de70a01b42f9fe6e6fdcd5e8d45002fc7b6dff31e378

## Audit Updates

<b>Initial Audit</b>	30th May 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

# Contract Diagnostics

● Critical    ● Medium    ● Minor

Severity	Code	Description
●	FSA	Fixed Swap Address
●	L01	Public Function could be Declared External
●	L04	Conformance to Solidity Naming Conventions
●	L07	Missing Events Arithmetic
●	L08	Tautology or Contradiction
●	L09	Dead Code Elimination

## FSA - Fixed Swap Address

<b>Criticality</b>	minor
<b>Location</b>	contract.sol#L1021

### Description

The swap address is assigned once in the constructor and it can not be changed. The decentralized swaps sometimes create a new swap version or abandon the current. A contract that cannot change the swap address may not be able to catch-up the upgrade.

```
IUniswapV2Router02 _uniswapV2Router = IUniswapV2Router02(router_);  
    // Create a uniswap pair for this new token  
    uniswapV2Pair = IUniswapV2Factory(_uniswapV2Router.factory())  
        .createPair(address(this), _uniswapV2Router.WETH());  
  
    // set the rest of the contract variables  
    uniswapV2Router = _uniswapV2Router;
```

### Recommendation

It could be better to allow the swap address mutation in case of future swap updates.

## L01 - Public Function could be Declared External

<b>Criticality</b>	minor
<b>Location</b>	contract.sol#L165,173,1045,1049,1053,1057,1066,1075,1084,1093,1110,1123,1139,1143,1147,1159,1187,1234,1238,1261,1435

### Description

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

```
isExcludedFromFee  
setSwapAndLiquifyEnabled  
includeInFee  
excludeFromFee  
excludeFromReward  
reflectionFromToken  
deliver  
totalFees  
isExcludedFromReward  
...
```

### Recommendation

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



## L04 - Conformance to Solidity Naming Conventions

**Criticality**

minor

**Location**

contract.sol#L641,1261,1396,1400,1408,940,943,946,951

### 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.

```
_charityAddress  
_charityFee  
_liquidityFee  
_taxFee  
_amount  
_enabled  
WETH
```

### Recommendation

Follow the Solidity naming convention.

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

## L07 - Missing Events Arithmetic

**Criticality**

minor

**Location**

contract.sol#L1242,1250

### Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes.

```
_liquidityFee = liquidityFeeBps  
_taxFee = taxFeeBps
```

### Recommendation

Emit an event for critical parameter changes.

## L08 - Tautology or Contradiction

**Criticality**

minor

**Location**

contract.sol#L972

### Description

Detects expressions that are tautologies or contradictions. For instance, an uint variable will always be greater than or equal to zero.

```
require(bool,string)(taxFeeBps_ >= 0,Invalid tax fee)
require(bool,string)(charityFeeBps_ >= 0,Invalid charity fee)
require(bool,string)(liquidityFeeBps_ >= 0,Invalid liquidity fee)
```

### Recommendation

Fix the incorrect comparison by changing the value type or the comparison.

## L09 - Dead Code Elimination

**Criticality**

minor

**Location**

contract.sol#L494,504,523,537,583,593,556,566,441,469,610

### Description

Functions that are not used in the contract, and make the code's size bigger.

```
verifyCallResult  
sendValue  
isContract  
functionStaticCall  
functionDelegateCall  
functionCallWithValue  
functionCall  
...
```

### Recommendation

Remove unused functions.

# 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>Context</b>	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
<b>Ownable</b>	Implementation	Context		
	<Constructor>	Public	✓	-
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	_setOwner	Private	✓	
<b>SafeMath</b>	Library			
	tryAdd	Internal		
	trySub	Internal		
	tryMul	Internal		
	tryDiv	Internal		
	tryMod	Internal		
	add	Internal		
	sub	Internal		
	mul	Internal		

	div	Internal		
	mod	Internal		
	sub	Internal		
	div	Internal		
	mod	Internal		
<b>Address</b>	Library			
	isContract	Internal		
	sendValue	Internal	✓	
	functionCall	Internal	✓	
	functionCall	Internal	✓	
	functionCallWithValue	Internal	✓	
	functionCallWithValue	Internal	✓	
	functionStaticCall	Internal		
	functionStaticCall	Internal		
	functionDelegateCall	Internal	✓	
	functionDelegateCall	Internal	✓	
	verifyCallResult	Internal		
<b>IUniswapV2Router01</b>	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	✓	-
	addLiquidityETH	External	Payable	-
	removeLiquidity	External	✓	-
	removeLiquidityETH	External	✓	-
	removeLiquidityWithPermit	External	✓	-
	removeLiquidityETHWithPermit	External	✓	-
	swapExactTokensForTokens	External	✓	-
	swapTokensForExactTokens	External	✓	-
	swapExactETHForTokens	External	Payable	-
	swapTokensForExactETH	External	✓	-
	swapExactTokensForETH	External	✓	-
	swapETHForExactTokens	External	Payable	-

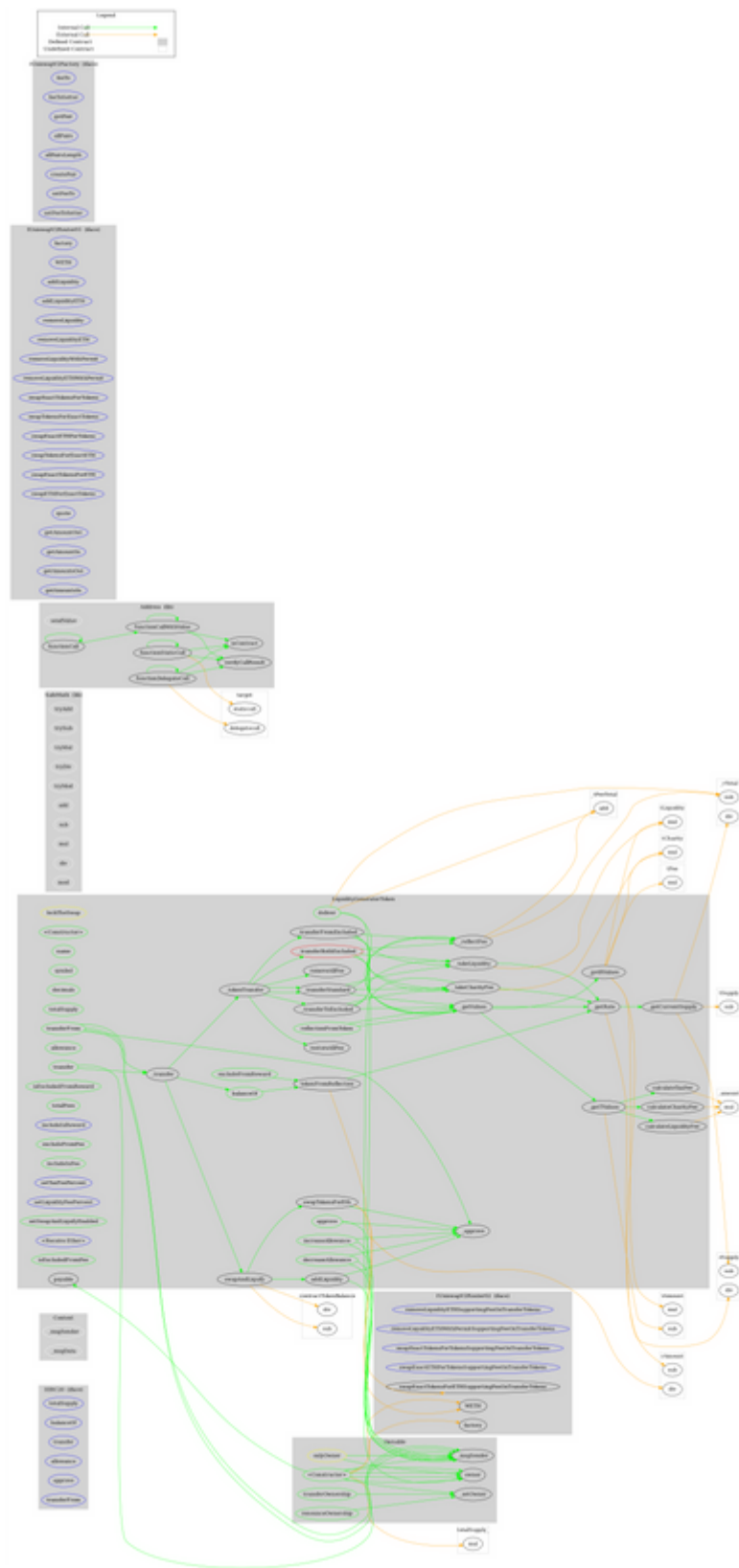
	quote	External		-
	getAmountOut	External		-
	getAmountIn	External		-
	getAmountsOut	External		-
	getAmountsIn	External		-
<b>IUniswapV2Router02</b>	Interface	IUniswapV2Router01		
	removeLiquidityETHSupportingFeeOnTransferTokens	External	✓	-
	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
<b>IUniswapV2Factory</b>	Interface			
	feeTo	External		-
	feeToSetter	External		-
	getPair	External		-
	allPairs	External		-
	allPairsLength	External		-
	createPair	External	✓	-
	setFeeTo	External	✓	-
	setFeeToSetter	External	✓	-
<b>BaseToken</b>	Implementation			
<b>LiquidityGeneratorToken</b>	Implementation	IERC20, Ownable, BaseToken		
	<Constructor>	Public	Payable	-
	name	Public		-
	symbol	Public		-

	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	increaseAllowance	Public	✓	-
	decreaseAllowance	Public	✓	-
	isExcludedFromReward	Public		-
	totalFees	Public		-
	deliver	Public	✓	-
	reflectionFromToken	Public		-
	tokenFromReflection	Public		-
	excludeFromReward	Public	✓	onlyOwner
	includeInReward	External	✓	onlyOwner
	_transferBothExcluded	Private	✓	
	excludeFromFee	Public	✓	onlyOwner
	includeInFee	Public	✓	onlyOwner
	setTaxFeePercent	External	✓	onlyOwner
	setLiquidityFeePercent	External	✓	onlyOwner
	setSwapAndLiquifyEnabled	Public	✓	onlyOwner
	<Receive Ether>	External	Payable	-
	_reflectFee	Private	✓	
	_getValues	Private		
	_getTValues	Private		
	_getRValues	Private		
	_getRate	Private		
	_getCurrentSupply	Private		
	_takeLiquidity	Private	✓	
	_takeCharityFee	Private	✓	
	calculateTaxFee	Private		
	calculateLiquidityFee	Private		
	calculateCharityFee	Private		
	removeAllFee	Private	✓	



	restoreAllFee	Private	✓	
	isExcludedFromFee	Public		-
	_approve	Private	✓	
	_transfer	Private	✓	
	swapAndLiquify	Private	✓	lockTheSwap
	swapTokensForEth	Private	✓	
	addLiquidity	Private	✓	
	_tokenTransfer	Private	✓	
	_transferStandard	Private	✓	
	_transferToExcluded	Private	✓	
	_transferFromExcluded	Private	✓	

# Contract Flow



## Summary

Drive To Earn is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. There is also a limit of max 25% fees.

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# About Cyberscope

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

Coinscope is the leading early coin listing, voting and auditing authority firm. The audit process is analyzing and monitoring many aspects of the project. That way, it gives the community a good sense of security using an informative report and a generic score.

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



The Cyberscope team

<https://www.cyberscope.io>