

# Smart Contract Security Audit V1

## Baby Dogelon Token

<https://www.babydogelon.xyz/>

29/1/2022



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# Background

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

## Project Information

- **Website:** <https://www.babydogelon.xyz/>
- **Telegram group:** <https://telegram.org/realbabydogelon>
- **Twitter:** <https://twitter.com/realbabydogelon>
- **Platform:** Binance Smart Chain
- **Contract Address:** 0xc19db217d96C10173070D435861a9b4138242980
- **Code Source:**  
<https://testnet.bscscan.com/address/0xc19db217d96c10173070d435861a9b4138242980#code>

## Token Information

- Name: BELON
- Total Supply: 1,000,000,000,000
- Holders: address
- Total transactions:

Contracts address deployed to test net (BSC)

Baby Dogelon smart contract on testnet.bsc (BSC Test Net)

<https://testnet.bscscan.com/address/0xc19db217d96c10173070d435861a9b4138242980>

## Executive Summary

According to our assessment, the customer`s solidity smart contract is **Secured**.

Well Secured	
<b>Secured</b>	✓
Poor Secured	
Insecure	

Automated checks are with remix IDE. All issues were performed by the team, which included the analysis of code functionality, manual audit found during automated analysis were manually reviewed and applicable vulnerabilities are presented in the audit overview section. The general overview is presented in the Project Information section and all issues found are located in the audit overview section.

Team found 0 critical, 0 high, 0 medium, 3 low, 0 very low-level issues and 2 notes in all solidity files of the contract

The files:

BabyDogelon.sol

# File and Function Level Report

## File in Scope:

Contract Name	SHA 256 hash	Contract Address
BabyDogelon.sol	ef271d5dbfed68a79ddc0e31273da3742c988c9f1fbba9af8faf7b1ec5c8b433	0xc19db217d96C10173070D435861a9b4138242980

- Contract: BabyDogelon
- Inherit: Context, IERC20, Ownable
- Observation: All passed including security check
- Test Report: passed
- Score: passed
- Conclusion: passed

Function	Test Result	Type / Return Type	Score
name	✓	Read / public	Passed
symbol	✓	Read / public	Passed
decimals	✓	Read / public	Passed
totalSupply	✓	Read / public	Passed
allowance	✓	Read / public	Passed
balanceOf	✓	Read / public	Passed
Owner	✓	Read / public	Passed
uniswapV2Pair	✓	Read / public	Passed
swapAndLiquifyEnabled	✓	Read / public	Passed
uniswapV2Router	✓	Read / public	Passed
reflectionFromToken	✓	Read / public	Passed
isExcludedFromReward	✓	Read / public	Passed

tokenFromReflection	✓	Read / public	<b>Passed</b>
maxWalletAmount	✓	Read / public	<b>Passed</b>
tradingStartBlock	✓	Read / public	<b>Passed</b>
isExcludedFromFees	✓	Read / public	<b>Passed</b>
maxBuyAmount	✓	Read / public	<b>Passed</b>
maxSellAmount	✓	Read / public	<b>Passed</b>
totalFees	✓	Read / public	<b>Passed</b>
_communityGrowthWallet	✓	Read / public	<b>Passed</b>
_isBlackListed	✓	Read / public	<b>Passed</b>
BLOCKCOUNT	✓	Read / public	<b>Passed</b>
buyFee	✓	Read / public	<b>Passed</b>
sellFee	✓	Read / public	<b>Passed</b>
approve	✓	Write / public	<b>Passed</b>
transferFrom	✓	Write / public	<b>Passed</b>
transfer	✓	Write / public	<b>Passed</b>
deliver	✓	Write / public	<b>Passed</b>
excludeFromFees	✓	Write / public	<b>Passed</b>
excludeFromReward	✓	Write / public	<b>Passed</b>
includeInFee	✓	Write / public	<b>Passed</b>
renounceOwnership	✓	Write / public	<b>Passed</b>
transferOwnership	✓	Write / public	<b>Passed</b>
includeInReward	✓	Write / public	<b>Passed</b>
enableTrading	✓	Write / public	<b>Passed</b>
decreaseAllowance	✓	Write / public	<b>Passed</b>
setSellFee	✓	Write / public	<b>Passed</b>
setMaxBuyAmount	✓	Write / public	<b>Passed</b>
setBlackList	✓	Write / public	<b>Passed</b>

setSwapAndLiquifyEnabled	✓	Write / public	<b>Passed</b>
increaseAllowance	✓	Write / public	<b>Passed</b>
updateRouter	✓	Write / public	<b>Passed</b>
setBuyFee	✓	Write / public	<b>Passed</b>
setNumTokensSellToAddToLiquidity	✓	Write / public	<b>Passed</b>
setMaxSellAmount	✓	Write / public	<b>Passed</b>
setMaxWalletAmount	✓	Write / public	<b>Passed</b>
setCommunityGrowthWallet	✓	Write / public	<b>Passed</b>
claimStuckTokens	✓	Write / public	<b>Passed</b>

# Issues Checking Status

No.	Issue Description	Checking Status
1	Compiler warnings.	Passed
2	Race conditions and Reentrancy. Cross-function race conditions.	Passed
3	Possible delays in data delivery.	Passed
4	Oracle calls.	Passed
5	Front running.	Passed
6	Timestamp dependence.	Passed
7	Integer Overflow and Underflow.	Passed
8	DoS with Revert.	Passed
9	DoS with block gas limit.	Passed with notes
10	Methods execution permissions.	Passed
11	Economy model. If application logic is based on an incorrect economic model, the application would not function correctly and participants would incur financial losses. This type of issue is most often found in bonus rewards systems, Staking and Farming contracts, Vault and Vesting contracts, etc.	Passed
12	The impact of the exchange rate on the logic.	Passed
13	Private user data leaks.	Passed
14	Malicious Event log.	Passed
15	Scoping and Declarations.	Passed
16	Uninitialized storage pointers.	Passed
17	Arithmetic accuracy.	Passed
18	Design Logic.	Passed



## Severity Definitions

Risk Level	Description
Critical	Critical vulnerabilities are usually straightforward to exploit and can lead to tokens loss etc.
High	High-level vulnerabilities are difficult to exploit; however, they also have significant impact on smart contract execution, e.g. public access to crucial functions
Medium	Medium-level vulnerabilities are important to fix; however, they can't lead to tokens lose
Low	Low-level vulnerabilities are mostly related to outdated, unused etc. code snippets, that can't have significant impact on execution
Note	Lowest-level vulnerabilities, code style violations and info statements can't affect smart contract execution and can be ignored.

## Audit Findings

### Critical:

No critical severity vulnerabilities were found.

### High:

No High severity vulnerabilities were found

### Medium:

No Medium severity vulnerabilities were found.

### Low:

#### #Use of block.timestamp for comparisons

##### Description

The value of block.timestamp can be manipulated by the miner.  
And conditions with strict equality is difficult to achieve -  
block.timestamp

##### Remediation

Avoid use of block.timestamp

Status: [Acknowledged](#)

#### #Owner privileges (In the period when the owner isn't renounced)

##### Description

Owner can change Buy and Sell Fees.

Owner can enable the trading.

Owner can add any address to Blacklist.

Owner can include / exclude any address from Fees or Reward.

```
function enableTrading() external onlyOwner {
    isTradingEnabled = true;
    tradingStartBlock = block.number;}
function isExcludedFromReward(address account) public view returns (bool) {
    return _isExcluded[account];}
function totalFees() public view returns (uint256) {
    return _tFeeTotal;}
function excludeFromReward(address account) public onlyOwner {
    require(!_isExcluded[account], "Account is already excluded");
    if (_rOwned[account] > 0) {
        _tOwned[account] = tokenFromReflection(_rOwned[account]); }
```

```

        _isExcluded[account] = true;
        _excluded.push(account);}
function includeInReward(address account) external onlyOwner {
    require(!_isExcluded[account], "Account is already excluded");
    for (uint256 i = 0; i < _excluded.length; i++) {
        if (_excluded[i] == account) {
            _excluded[i] = _excluded[_excluded.length - 1];
            _tOwned[account] = 0;
            _isExcluded[account] = false;
            _excluded.pop();
            break;}}}
function excludeFromFee(address account) external onlyOwner {
    _isExcludedFromFee[account] = true;}
function setBlackList(address addr, bool value) external onlyOwner {
    _isBlackListed[addr] = value;}
function includeInFee(address account) external onlyOwner {
    _isExcludedFromFee[account] = false;}
function setBuyFee(uint16 market, uint16 tax) external onlyOwner {
    buyFee.communityGrowthFee = market;
    buyFee.taxFee = tax;}
function setSellFee(
    uint16 liq,
    uint16 market,
    uint16 tax
) external onlyOwner {
    sellFee.liquidityFee = liq;
    sellFee.communityGrowthFee = market;
    sellFee.taxFee = tax;}

```

## Remediation

Make these functions internal in next version or the team should announce the investors before change the fees and give them time if they want to use the old fees.

P.S: This issue is common to the majority of rewards smart contracts.

Status: **Acknowledged.**

## #Pragam version not fixed

### Description

It is a good practice to lock the solidity version for a live deployment (use 0.8.10 instead of ^0.8.10). contracts should be deployed with the same compiler version and flags that they have been tested the most with. Locking the pragma helps ensure that contracts do not accidentally get deployed using, for example, the latest compiler which may have higher risks of undiscovered bugs. Contracts may also be deployed by others and the pragma indicates the compiler version intended by the original authors.

### Remediation

Remove the ^ sign to lock the pragma version

Status: **Acknowledged.**

## Very Low:

No Very Low severity vulnerabilities were found.

### Notes:

## #Naming Conventions

### Description

The contract follows a consistent naming convention where we are private variables with leading "\_" and public variables without it. But we have missed to comply to the condition for certain variable names "\_\_isBlacklisted" which is public

### Remediation

Remove "\_" from external variable names and add it to private variable names

Status: [Acknowledged](#)

## # Constant calculations in the contract

### Description

recalculated initialization will save 2847 units of gas in deployment

```
uint256 private _tTotal = 1 * 10**12 * 10**9;
```

### Recommendation

Replace the initialization as

```
uint256 private _tTotal = 1000000000000000000000;
```

Status: [Acknowledged](#)

# Automatic Testing

## 1- Check for security

ef271d5dbfed68a79ddc0e31273da3742c988c9f1fbb9af8faf7b1ec5c8b433

File: BabyDo... | Language: solidity | Size: 54724 bytes | Date: 2022-01-29T06:12:39.292Z

Critical	High	Medium	Low	Note
0	0	0	0	0



## 2- SOLIDITY STATIC ANALYSIS

SOLIDITY STATIC ANALYSIS

☒ Select all ☒ Autorun Run

Security

☒ Select Security

- ☒ Transaction origin:  
'tx.origin' used
- ☒ Check-effects-interaction:  
Potential reentrancy bugs
- ☒ Inline assembly:  
Inline assembly used
- ☒ Block timestamp:  
Can be influenced by miners
- ☒ Low level calls:  
Should only be used by experienced devs
- ☒ Block hash:  
Can be influenced by miners
- ☒ Selfdestruct:  
Contracts using destructed contract can be broken

Gas & Economy

☒ Select Gas & Economy

- ☒ Gas costs:  
Too high gas requirement of functions
- ☒ This on local calls:  
Invocation of local functions via 'this'
- ☒ Delete dynamic array:  
Use require/assert to ensure complete deletion
- ☒ For loop over dynamic array:  
Iterations depend on dynamic array's size
- ☒ Ether transfer in loop:  
Transferring Ether in a for/while/do-while loop

SOLIDITY STATIC ANALYSIS

ERC

☒ Select ERC

- ☒ ERC20:  
'decimals' should be 'uint8'

Miscellaneous

☒ Select Miscellaneous

- ☒ Constant/View/Pure functions:  
Potentially constant/view/pure functions
- ☒ Similar variable names:  
Variable names are too similar
- ☒ No return:  
Function with 'returns' not returning
- ☒ Guard conditions:  
Ensure appropriate use of require/assert
- ☒ Result not used:  
The result of an operation not used
- ☒ String length:  
Bytes length != String length
- ☒ Delete from dynamic array:  
'delete' leaves a gap in array
- ☒ Data truncated:  
Division on int/uint values truncates the result

## 3- Inheritance graph

```
graph TD; IUniswapV2Router02 --> IUniswapV2Router01; BabyDogelonToken --> Ownable; BabyDogelonToken --> IERC20; BabyDogelonToken --> Context; Address; SafeMath;
```

## 4- SOLIDITY UNIT TESTING

### SOLIDITY UNIT TESTING



Test your smart contract in Solidity.

Select directory to load and generate test files.

Test directory:

tests

Create

Generate

How to use...

Run

Stop

☒ Select all

☒ tests/BabyDogelon\_test.sol

Progress: 1 finished (of 1)

**PASS** testSuite

**(tests/BabyDogelon\_test.sol)**

✓ Before all



✓ Check success



✓ Check success2



✓ Check failure

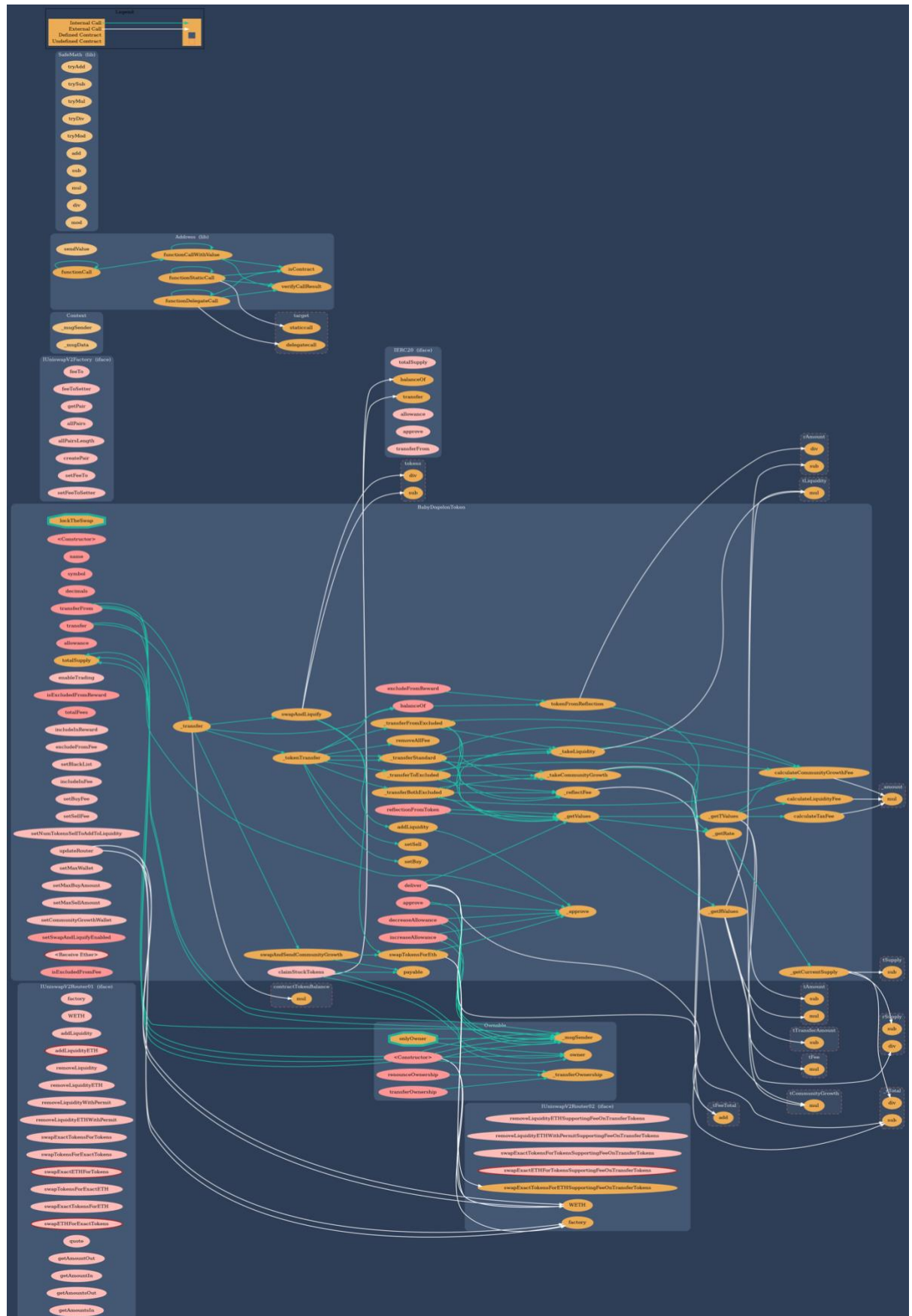


✓ Check sender and value

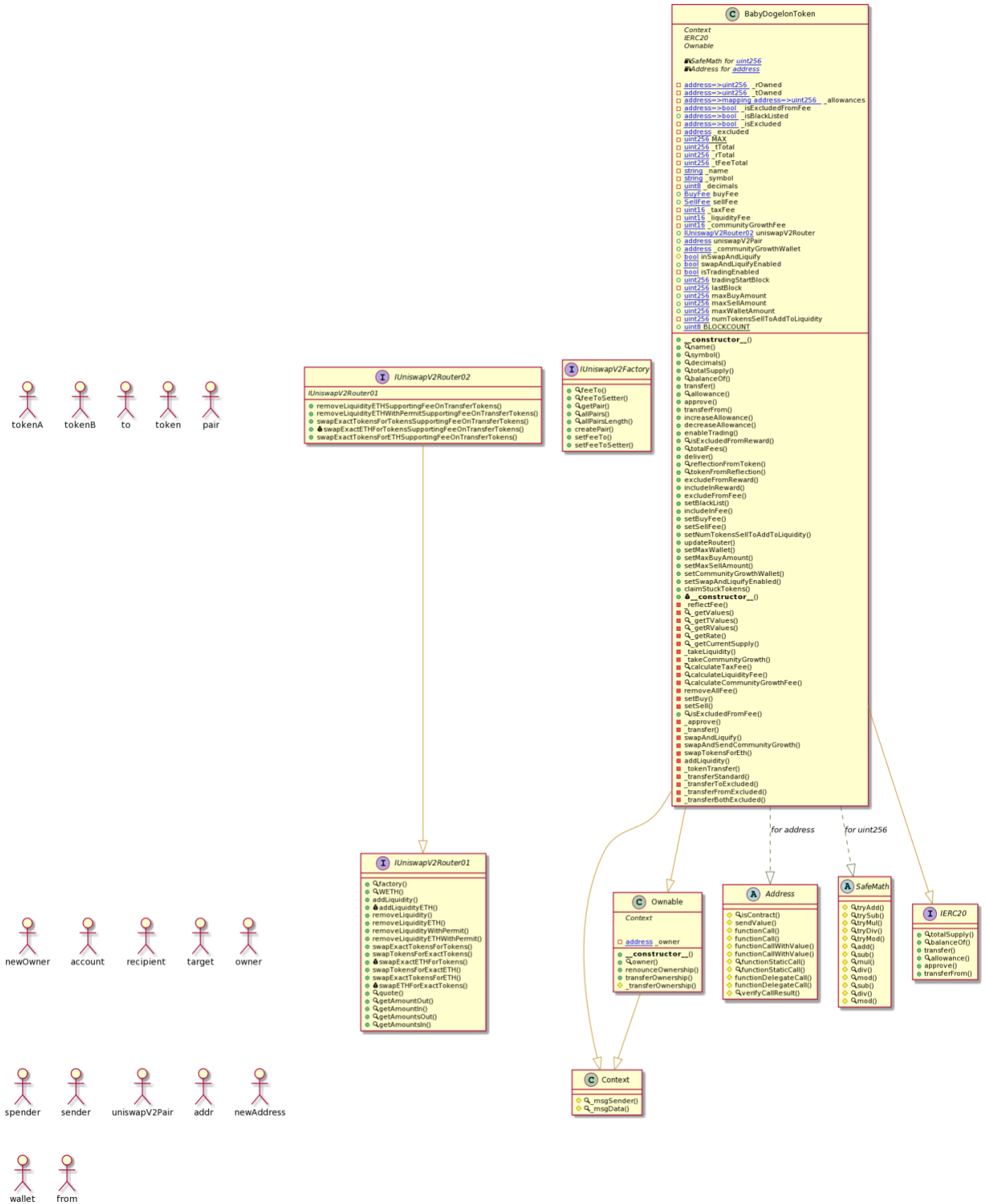


**Result for**  
**tests/BabyDogelon\_test.sol**  
Passing: 5  
Total time: 0.39s

5- Call graph



# Unified Modeling Language (UML)





## Functions signature

Sighash	Function Signature
11902160	=> _getTValues(uint256)
16279055	=> isContract(address)
39509351	=> increaseAllowance(address,uint256)
75128141	=> calculateTaxFee(uint256)
c45a0155	=> factory()
ad5c4648	=> WETH()
e8e33700	=>
	addLiquidity(address,address,uint256,uint256,uint256,uint256,address,uint256)
f305d719	=> addLiquidityETH(address,uint256,uint256,uint256,address,uint256)
baa2abde	=>
	removeLiquidity(address,address,uint256,uint256,uint256,address,uint256)
02751cec	=> removeLiquidityETH(address,uint256,uint256,uint256,address,uint256)
2195995c	=>
	removeLiquidityWithPermit(address,address,uint256,uint256,uint256,address,uint256,boolean,uint8,bytes32,bytes32)
ded9382a	=>
	removeLiquidityETHWithPermit(address,uint256,uint256,uint256,address,uint256,boolean,uint8,bytes32,bytes32)
38ed1739	=> swapExactTokensForTokens(uint256,uint256,address[],address,uint256)
8803dbee	=> swapTokensForExactTokens(uint256,uint256,address[],address,uint256)
7ff36ab5	=> swapExactETHForTokens(uint256,address[],address,uint256)
4a25d94a	=> swapTokensForExactETH(uint256,uint256,address[],address,uint256)
18cbafe5	=> swapExactTokensForETH(uint256,uint256,address[],address,uint256)
fb3bdb41	=> swapETHForExactTokens(uint256,address[],address,uint256)
ad615dec	=> quote(uint256,uint256,uint256)
054d50d4	=> getAmountOut(uint256,uint256,uint256)
85f8c259	=> getAmountIn(uint256,uint256,uint256)
d06ca61f	=> getAmountsOut(uint256,address[])
1f00ca74	=> getAmountsIn(uint256,address[])
af2979eb	=>
	removeLiquidityETHSupportingFeeOnTransferTokens(address,uint256,uint256,uint256,address,uint256)
5b0d5984	=>
	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens(address,uint256,uint256,uint256,address,uint256,boolean,uint8,bytes32,bytes32)
5c11d795	=>
	swapExactTokensForTokensSupportingFeeOnTransferTokens(uint256,uint256,address[],address,uint256)
b6f9de95	=>
	swapExactETHForTokensSupportingFeeOnTransferTokens(uint256,address[],address,uint256)
791ac947	=>
	swapExactTokensForETHSupportingFeeOnTransferTokens(uint256,uint256,address[],address,uint256)
017e7e58	=> feeTo()
094b7415	=> feeToSetter()
e6a43905	=> getPair(address,address)
1e3dd18b	=> allPairs(uint256)
574f2ba3	=> allPairsLength()
c9c65396	=> createPair(address,address)
f46901ed	=> setFeeTo(address)
a2e74af6	=> setFeeToSetter(address)
119df25f	=> _msgSender()
8b49d47e	=> _msgData()

```
8da5cb5b => owner()
715018a6 => renounceOwnership()
f2fde38b => transferOwnership(address)
d29d44ee => _transferOwnership(address)
24a084df => sendValue(address,uint256)
a0b5ffb0 => functionCall(address,bytes)
241b5886 => functionCall(address,bytes,string)
2a011594 => functionCallWithValue(address,bytes,uint256)
d525ab8a => functionCallWithValue(address,bytes,uint256,string)
c21d36f3 => functionStaticCall(address,bytes)
dbc40fb9 => functionStaticCall(address,bytes,string)
ee33b7e2 => functionDelegateCall(address,bytes)
57387df0 => functionDelegateCall(address,bytes,string)
946b5793 => verifyCallResult(bool,bytes,string)
884557bf => tryAdd(uint256,uint256)
a29962b1 => trySub(uint256,uint256)
6281efa4 => tryMul(uint256,uint256)
736ecb18 => tryDiv(uint256,uint256)
38dc0867 => tryMod(uint256,uint256)
771602f7 => add(uint256,uint256)
b67d77c5 => sub(uint256,uint256)
c8a4ac9c => mul(uint256,uint256)
a391c15b => div(uint256,uint256)
f43f523a => mod(uint256,uint256)
e31bdc0a => sub(uint256,uint256,string)
b745d336 => div(uint256,uint256,string)
71af23e8 => mod(uint256,uint256,string)
18160ddd => totalSupply()
70a08231 => balanceOf(address)
a9059cbb => transfer(address,uint256)
dd62ed3e => allowance(address,address)
095ea7b3 => approve(address,uint256)
23b872dd => transferFrom(address,address,uint256)
06fdde03 => name()
95d89b41 => symbol()
313ce567 => decimals()
a457c2d7 => decreaseAllowance(address,uint256)
8a8c523c => enableTrading()
88f82020 => isExcludedFromReward(address)
13114a9d => totalFees()
3bd5d173 => deliver(uint256)
4549b039 => reflectionFromToken(uint256,bool)
2d838119 => tokenFromReflection(uint256)
52390c02 => excludeFromReward(address)
3685d419 => includeInReward(address)
437823ec => excludeFromFee(address)
68092bd9 => setBlackList(address,bool)
ea2f0b37 => includeInFee(address)
7afad249 => setBuyFee(uint16,uint16)
2e222fa2 => setSellFee(uint16,uint16,uint16)
f0f165af => setNumTokensSellToAddToLiquidity(uint256)
c851cc32 => updateRouter(address)
5d0044ca => setMaxWallet(uint256)
f34eb0b8 => setMaxBuyAmount(uint256)
e99c9d09 => setMaxSellAmount(uint256)
8920731b => setCommunityGrowthWallet(address)
c49b9a80 => setSwapAndLiquifyEnabled(bool)
f9d0831a => claimStuckTokens(address)
184d894e => _reflectFee(uint256,uint256)
```

```
d4780e36 => _getValues(uint256)
65c63d72 => _getRValues(uint256,uint256,uint256,uint256,uint256)
94e10784 => _getRate()
97a9d560 => _getCurrentSupply()
c432df5e => _takeLiquidity(uint256)
9fe808d1 => _takeCommunityGrowth(uint256)
cc126a23 => calculateLiquidityFee(uint256)
38a39203 => calculateCommunityGrowthFee(uint256)
301370af => removeAllFee()
e2437408 => setBuy()
a2b1f062 => setSell()
5342acb4 => isExcludedFromFee(address)
104e81ff => _approve(address,address,uint256)
30e0789e => _transfer(address,address,uint256)
173865ad => swapAndLiquify(uint256)
9b85ec1b => swapAndSendCommunityGrowth(uint256)
b28805f4 => swapTokensForEth(uint256)
9cd441da => addLiquidity(uint256,uint256)
b09bbc79 => _tokenTransfer(address,address,uint256,bool)
2852df65 => _transferStandard(address,address,uint256)
16f1cc83 => _transferToExcluded(address,address,uint256)
c7d9be66 => _transferFromExcluded(address,address,uint256)
6ff6cdf4 => _transferBothExcluded(address,address,uint256)
```

# Automatic general report

## Files Description Table

File Name	SHA-1 Hash
/Users/macbook/Desktop/smart contracts/BabyDogelon.sol	4c347861d034198a091d808a628afad440a9c40c

## Contracts Description Table

Contract	Type	Bases	
:-----: :-----: :-----: :-----:			
L	**Function Name**	**Visibility**	**Mutability**
**Modifiers**			
**IUniswapV2Router01**   Interface			
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 !
**IUniswapV2Router02**   Interface   IUniswapV2Router01			
L	removeLiquidityETHSupportingFeeOnTransferTokens	External !	NO !
L	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External !	NO !
L	swapExactTokensForTokensSupportingFeeOnTransferTokens	External !	NO !
L	swapExactETHForTokensSupportingFeeOnTransferTokens	External !	NO !
L	swapExactTokensForETHSupportingFeeOnTransferTokens	External !	NO !
**IUniswapV2Factory**   Interface			
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 !

```

| | | | | | |
| **Context** | Implementation | | |
| L | _msgSender | Internal | | |
| L | _msgData | Internal | | |
| | | |
| **Ownable** | Implementation | Context | | |
| L | <Constructor> | Public | | NO |
| L | owner | Public | | NO |
| L | renounceOwnership | Public | | | onlyOwner |
| L | transferOwnership | Public | | | onlyOwner |
| L | _transferOwnership | Internal | | |
| | | |
| **Address** | Library | | |
| L | isContract | Internal | | |
| L | sendValue | Internal | | |
| L | functionCall | Internal | | |
| L | functionCall | Internal | | |
| L | functionCallWithValue | Internal | | |
| L | functionCallWithValue | Internal | | |
| L | functionStaticCall | Internal | | |
| L | functionStaticCall | Internal | | |
| L | functionDelegateCall | Internal | | |
| L | functionDelegateCall | Internal | | |
| L | verifyCallResult | Internal | | |
| | | |
| **SafeMath** | Library | | |
| 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 | | |
| | | |
| **IERC20** | Interface | | |
| L | totalSupply | External | | NO |
| L | balanceOf | External | | NO |
| L | transfer | External | | NO |
| L | allowance | External | | NO |
| L | approve | External | | NO |
| L | transferFrom | External | | NO |
| | | |
| **BabyDogelonToken** | Implementation | Context, IERC20, Ownable | | |
| L | <Constructor> | Public | | NO |
| L | name | Public | | NO |
| L | symbol | Public | | NO |
| L | decimals | Public | | NO |
| L | totalSupply | Public | | NO |
| L | balanceOf | Public | | NO |
| L | transfer | Public | | NO |
| L | allowance | Public | | NO |
| L | approve | Public | | NO |

```

L	transferFrom	Public	!	⬤	NO	!	
L	increaseAllowance	Public	!	⬤	NO	!	
L	decreaseAllowance	Public	!	⬤	NO	!	
L	enableTrading	External	!	⬤	onlyOwner		
L	isExcludedFromReward	Public	!		NO	!	
L	totalFees	Public	!		NO	!	
L	deliver	Public	!	⬤	NO	!	
L	reflectionFromToken	Public	!		NO	!	
L	tokenFromReflection	Public	!		NO	!	
L	excludeFromReward	Public	!	⬤	onlyOwner		
L	includeInReward	External	!	⬤	onlyOwner		
L	excludeFromFee	External	!	⬤	onlyOwner		
L	setBlackList	External	!	⬤	onlyOwner		
L	includeInFee	External	!	⬤	onlyOwner		
L	setBuyFee	External	!	⬤	onlyOwner		
L	setSellFee	External	!	⬤	onlyOwner		
L	setNumTokensSellToAddToLiquidity	External	!	⬤	onlyOwner		
L	updateRouter	External	!	⬤	onlyOwner		
L	setMaxWallet	External	!	⬤	onlyOwner		
L	setMaxBuyAmount	External	!	⬤	onlyOwner		
L	setMaxSellAmount	External	!	⬤	onlyOwner		
L	setCommunityGrowthWallet	External	!	⬤	onlyOwner		
L	setSwapAndLiquifyEnabled	Public	!	⬤	onlyOwner		
L	claimStuckTokens	External	!	⬤	onlyOwner		
L	<Receive Ether>	External	!	👤	NO	!	
L	_reflectFee	Private	🔒	⬤			
L	_getValues	Private	🔒				
L	_getTValues	Private	🔒				
L	_getRValues	Private	🔒				
L	_getRate	Private	🔒				
L	_getCurrentSupply	Private	🔒				
L	_takeLiquidity	Private	🔒	⬤			
L	_takeCommunityGrowth	Private	🔒	⬤			
L	calculateTaxFee	Private	🔒				
L	calculateLiquidityFee	Private	🔒				
L	calculateCommunityGrowthFee	Private	🔒				
L	removeAllFee	Private	🔒	⬤			
L	setBuy	Private	🔒	⬤			
L	setSell	Private	🔒	⬤			
L	isExcludedFromFee	Public	!		NO	!	
L	_approve	Private	🔒	⬤			
L	_transfer	Private	🔒	⬤			
L	swapAndLiquify	Private	🔒	⬤	lockTheSwap		
L	swapAndSendCommunityGrowth	Private	🔒	⬤	lockTheSwap		
L	swapTokensForEth	Private	🔒	⬤			
L	addLiquidity	Private	🔒	⬤			
L	_tokenTransfer	Private	🔒	⬤			
L	_transferStandard	Private	🔒	⬤			
L	_transferToExcluded	Private	🔒	⬤			
L	_transferFromExcluded	Private	🔒	⬤			
L	_transferBothExcluded	Private	🔒	⬤			

#### Legend

Symbol	Meaning
⬤	Function can modify state
👤	Function is payable

## Conclusion

The contracts are written systematically. Team found no critical issues. So, it is good to go for production.

Since possible test cases can be unlimited and developer level documentation (code flow diagram with function level description) not provided, for such an extensive smart contract protocol, we provide no such guarantee of future outcomes. We have used all the latest static tools and manual observations to cover maximum possible test cases to scan Everything.

Security state of the reviewed contract is “secured”.

- ✓ No mint function.
- ✓ No volatile code.
- ✓ Not many high severity issues were found.
- ✓ Contract Ownership Renounced.

# Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as of 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 the team on the basis of what it says or doesn't say, or how team produced it, and it is important for you to conduct your own independent investigations before making any decisions. team go into more detail on this in the below disclaimer below – please make sure to read it in full.

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