

# CFG NINJA AUDITS

Security Assessment

PornLab Token

February 28, 2023

Audit Status: Pass

Audit Edition: Advance



3LADE POOL



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# **Assessment Summary**

This report has been prepared for PornLab Token on the Arbitrium network. CFGNINJA provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders
- Thorough line-by-line manual review of the entire codebase by industry experts.





# **Project Overview**

## **Token Summary**

Parameter	Result
Address	0xd2a23e28a6cF48357D3A40d00CC318fbCB6a3b26
Name	PornLab
Token Tracker	PornLab (PLAB)
Decimals	18
Supply	1,000,000,000
Platform	Arbitrium
compiler	v0.8.17+commit.8df45f5f
Contract Name	PornLab
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://arbiscan.io/address/0xd2a23e28a6cF48357D3A40d00 CC318fbCB6a3b26#code
Payment Tx	Corporate





# **Project Overview**

## Risk Analysis Summary

Parameter	Result
Buy Tax	6%
Sale Tax	6%
Is honeypot?	Clean
Can edit tax?	Yes
Is anti whale?	No
Is blacklisted?	No
Is whitelisted?	No
Holders	0
Confidence Level	Low

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.





# **Project Overview**

## **Simulation Summary**

Parameter	Result
Transfer From Owner	Pass
Transfer From Holder	Pass
Add Liquidity	Pass
Buy from Owner	Pass
Buy from Holder	Pass
Remove Liquidity	Pass
SwapAndLiquify	Pass
RemoveLiquidity	Pass
LaunchPad	PinkSale

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.





# Main Contract Assessed Contract Name

Name	Contract	Live
PornLab	Oxd2a23e28a6cF48357D3A40d00CC318fbCB6a3b26	Yes

# TestNet Contract Assessed Contract Name

Name	Contract	Live
PornLab	OxeEbe125F1aEfB26995A62e83F98Ef504561A4163	Yes

#### **Solidity Code Provided**

SolID	File Sha-1	FileName
PornLab	Of66518db10e61c472a182c2bfe17899bc85c434	PornlabToken.sol
PornLab		
PornLab		





## **Mint Check**

The project owners of PornLab do not have a mint function in the contract, owner cannot mint tokens after initial deploy.

The Project has a Total Supply of 1,000,000,000 and cannot mint any more than the Max Supply.

Mint Notes:

**Auditor Notes:** 

**Project Owner Notes:** 









## **Fees Check**

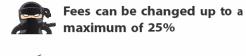
The project owners of PornLab do not have the ability to set fees higher than 25%.

The team May have fees defined; however, they can't set those fees higher than 25% or may not be able to configure the same.

Tax Fee Notes:

Auditor Notes: The contract currently has 3% buy and 3% sale taxes, and it cannot be set higher than 20%

**Project Owner Notes:** 









## **Blacklist Check**

The project owners of PornLab do not have a blacklist function their contract.

The Project allow owners to transfer their tokens without any restrictions.

Token owner cannot blacklist the contract: Malicious or compromised owners can trap contracts relying on tokens with a blacklist.

**Blacklist Notes:** 

**Auditor Notes:** 

**Project Owner Notes: undefined** 







## MaxTx Check

# The Project Owners of PornLab cannot set max tx amount

The Team allows any investors to swap, transfer or sell their total amount if needed.

MaxTX Notes:

Auditor Notes: Customer has a max Wallet Configuration now.

**Project Owner Notes:** 

Project Has No MaxTX







## Pause Trade Check

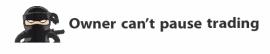
The Project Owners of PornLab don't have the ability to stop or pause trading.

The Team has done a great job to avoid stop trading, and investors has the ability to trade at any given time without any problems

**Pause Trade Notes:** 

**Auditor Notes:** 

**Project Owner Notes:** 









# **Contract Ownership**

The contract ownership of PornLab is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

The current owner is the address
Oxb7eO418O9b7bO26b97fO3bd6dbc28e74ccecaO8e
which can be viewed:

#### **HERE**

The owner wallet has the power to call the functions displayed on the privileged functions chart below, if the owner's wallet is compromised, they could exploit these privileges.

We recommend the team renounce ownership at the right time, if possible, or gradually migrate to a timelock with governing functionalities regarding transparency and safety considerations.

We recommend the team use a Multisignature Wallet if the contract is not going to be renounced; this will give the team more control over the contract.





# **Liquidity Ownership**

The token does not have liquidity at the moment of the audit, block

If liquidity is unlocked, then the token developers can do what is infamously known as 'rugpull'. Once investors start buying token from the exchange, the liquidity pool will accumulate more and more coins of established value (e.g., ETH or BNB or Tether). This is because investors are basically sending these tokens of value to the exchange, to get the new token. Developers can withdraw this liquidity from the exchange, cash in all the value and run off with it. Liquidity is locked by renouncing the ownership of liquidity pool (LP) tokens for a fixed time period, by sending them to a time-lock smart contract. Without ownership of LP tokens, developers cannot get liquidity pool funds back. This provides confidence to the investors that the token developers will not run away with the liquidity money. It is now a standard practice that all token developers follow, and this is what really differentiates a scam coin from a real one.

#### Read More

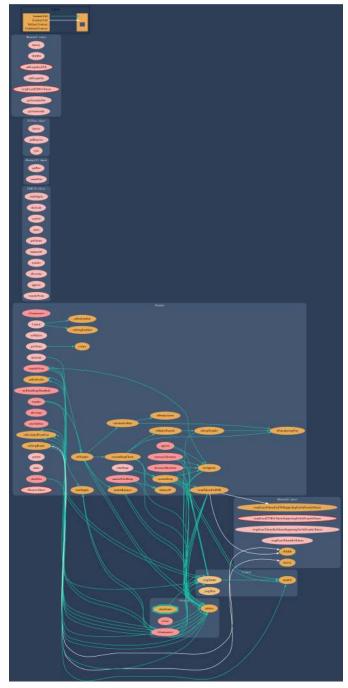






# Call Graph

The contract for PornLab has the following call graph structure.







# **KYC Information**

The Project Owners of PornLab have provided KYC Documentation.

## KYC Certificated can be found on the Following: KYC Data

**KYC Information Notes:** 

**Auditor Notes:** 

**Project Owner Notes:** 







# Smart Contract Vulnerability Checks

The Smart Contract Weakness Classification Registry (SWC Registry) is an implementation of the weakness classification scheme proposed in EIP-1470. It is loosely aligned to the terminologies and structure used in the Common Weakness Enumeration (CWE) while overlaying a wide range of weakness variants that are specific to smart contracts.

ID	Severity	Name	File	location
SWC-100	Pass	Function Default Visibility	PornlabToken.sol	L: 0 C: 0
SWC-101	Pass	Integer Overflow and Underflow.	PornlabToken.sol	L: 0 C: 0
SWC-102	Pass	Outdated Compiler Version file.	PornlabToken.sol	L: 0 C: 0
SWC-103	Pass	A floating pragma is set.	PornlabToken.sol	L: 0 C: 0
SWC-104	Pass	Unchecked Call Return Value.	PornlabToken.sol	L: 0 C: 0
SWC-105	Pass	Unprotected Ether Withdrawal.	PornlabToken.sol	L: 0 C: 0
SWC-106	Pass	Unprotected SELFDESTRUCT Instruction	PornlabToken.sol	L: 0 C: 0
SWC-107	Pass	Read of persistent state following external call.	PornlabToken.sol	L: 0 C: 0
SWC-108	Pass	State variable visibility is not set	PornlabToken.sol	L: 189 C:
SWC-109	Pass	Uninitialized Storage Pointer.	PornlabToken.sol	L: 0 C: 0
SWC-110	Pass	Assert Violation.	PornlabToken.sol	L: 0 C: 0





ID	Severity	Name	File	location
SWC-111	Pass	Use of Deprecated Solidity Functions.	PornlabToken.sol	L: 0 C: 0
SWC-112	Pass	Delegate Call to Untrusted Callee.	PornlabToken.sol	L: 0 C: 0
SWC-113	Pass	Multiple calls are executed in the same transaction.	PornlabToken.sol	L: 0 C: 0
SWC-114	Pass	Transaction Order Dependence.	PornlabToken.sol	L: 0 C: 0
SWC-115	Pass	Authorization through tx.origin.	PornlabToken.sol	L: 0 C: 0
SWC-116	Pass	A control flow decision is made based on The block.timestamp environment variable.	PornlabToken.sol	L: 0 C: 0
SWC-117	Pass	Signature Malleability.	PornlabToken.sol	L: 0 C: 0
SWC-118	Pass	Incorrect Constructor Name.	PornlabToken.sol	L: 0 C: 0
SWC-119	Pass	Shadowing State Variables.	PornlabToken.sol	L: 0 C: 0
SWC-120	Low	Potential use of block.number as source of randonmness.	PornlabToken.sol	L: 189 C: 25, L: 397 C: 89
SWC-121	Pass	Missing Protection against Signature Replay Attacks.	PornlabToken.sol	L: 0 C: 0
SWC-122	Pass	Lack of Proper Signature Verification.	PornlabToken.sol	L: 0 C: 0
SWC-123	Pass	Requirement Violation.	PornlabToken.sol	L: 0 C: 0
SWC-124	Pass	Write to Arbitrary Storage Location.	PornlabToken.sol	L: 0 C: 0
SWC-125	Pass	Incorrect Inheritance Order.	PornlabToken.sol	L: 0 C: 0





ID	Severity	Name	File	location
SWC-126	Pass	Insufficient Gas Griefing.	PornlabToken.sol	L: 0 C: 0
SWC-127	Pass	Arbitrary Jump with Function Type Variable.	PornlabToken.sol	L: 0 C: 0
SWC-128	Pass	DoS With Block Gas Limit.	PornlabToken.sol	L: 0 C: 0
SWC-129	Pass	Typographical Error.	PornlabToken.sol	L: 0 C: 0
SWC-130	Pass	Right-To-Left-Override control character (U +202E).	PornlabToken.sol	L: 0 C: 0
SWC-131	Pass	Presence of unused variables.	PornlabToken.sol	L: 0 C: 0
SWC-132	Pass	Unexpected Ether balance.	PornlabToken.sol	L: 0 C: 0
SWC-133	Pass	Hash Collisions with Multiple Variable Length Arguments.	PornlabToken.sol	L: 0 C: 0
SWC-134	Pass	Message call with hardcoded gas amount.	PornlabToken.sol	L: 0 C: 0
SWC-135	Pass	Code With No Effects (Irrelevant/Dead Code).	PornlabToken.sol	L: 0 C: 0
SWC-136	Pass	Unencrypted Private Data On-Chain.	PornlabToken.sol	L: 0 C: 0

We scan the contract for additional security issues using MYTHX and industry-standard security scanning tools.





# Smart Contract Vulnerability Details

# SWC-120 - Weak Sources of Randomness from Chain Attributes

**CWE-330: Use of Insufficiently Random Values** 

#### **Description:**

Solidity allows for ambiguous naming of state variables when inheritance is used. Contract A with a variable x could inherit contract B that also has a state variable x defined. This would result in two separate versions of x, one of them being accessed from contract A and the other one from contract B. In more complex contract systems this condition could go unnoticed and subsequently lead to security issues.

Shadowing state variables can also occur within a single contract when there are multiple definitions on the contract and function level.

#### Remediation:

Using commitment scheme, e.g. RANDAO. Using external sources of randomness via oracles, e.g. Oraclize. Note that this approach requires trusting in oracle, thus it may be reasonable to use multiple oracles. Using Bitcoin block hashes, as they are more expensive to mine.

#### References:

How can I securely generate a random number in my smart contract?)

When can BLOCKHASH be safely used for a random number? When would it be unsafe?

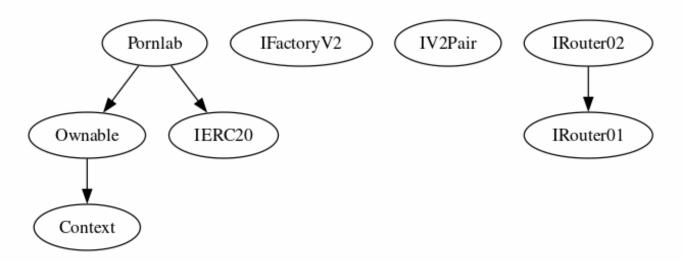
The Run smart contract.





# **Inheritance**

The contract for PornLab has the following inheritance structure.





# Privileged Functions (onlyOwner)

Please Note if the contract is Renounced none of this functions can be executed.

Function Name	Parameters	Visibility
renounceOwnership		public
transferOwnership	newOwner (address)	public
Launch	uint256 _blockPenalty	external
setNoFeeWallet	address account, bool enabled	external
setWallets	address _marketing, address _dev	external
setFeeProfile	uint8 _liquidity, uint8 _marketing, uint8 _dev, bool _updateBuy	public
clearSwap	uint256 _tokenAmount	external
setSwapRouter	address routerAddress	public





Function Name	Parameters	Visibility
setTokenSwapThresh old	uint256 threshold	Public
clearDust		public
setSwapEnabled	bool isEnabled	public
setFeeEnabled	bool isEnabled	public





# **Smart Contract Advance Checks**

ID	Severity	Name	Result	Status
PLAB-01	Minor	Potential Sandwich Attacks.	Fail	Resolved
PLAB-02	Minor	Function Visibility Optimization	Pass	Resolved
PLAB-03	Minor	Lack of Input Validation.	Fail	Pending
PLAB-04	Major	Centralized Risk In addLiquidity.	Fail	Pending
PLAB-05	Major	Missing Event Emission.	Pass	Resolved
PLAB-06	Minor	Conformance with Solidity Naming Conventions.	Pass	Not-Found
PLAB-07	Minor	State Variables could be Declared Constant.	Pass	Not-Found
PLAB-08	Major	Dead Code Elimination.	Pass	Not-Found
PLAB-09	Major	Third Party Dependencies.	Pass	Not Found
PLAB-10	Major	Initial Token Distribution.	Pass	Resolved
PLAB-11	Critical	The use of setHoldTime can lead to a pause trade or honeyPot State	Pass	Not-found
PLAB-12	Major	Centralization Risks In The X Role	Pass	Not Found
PLAB-13	Informational	Extra Gas Cost For User	Fail	Not-Found
PLAB-14	Medium	Unnecessary Use Of SafeMath	Pass	Not-Found





ID	Severity	Name	Result	Status
PLAB-15	Medium	Symbol Length Limitation due to Solidity Naming Standards.	Pass	Not-Found
PLAB-16	Medium	Invalid collection of Taxes during Transfer.	Pass	Not-Found





#### PLAB-01 | Potential Sandwich Attacks.

Category	Severity	Location	Status
Security	Minor	PornlabToken.sol: 333, 14	Resolved

#### **Description**

A sandwich attack might happen when an attacker observes a transaction swapping tokens or adding liquidity without setting restrictions on slippage or minimum output amount. The attacker can manipulate the exchange rate by frontrunning (before the transaction being attacked) a transaction to purchase one of the assets and make profits by back running (after the transaction being attacked) a transaction to sell the asset. The following functions are called without setting restrictions on slippage or minimum output amount, so transactions triggering these functions are vulnerable to sandwich attacks, especially when the input amount is large:

- swapExactTokensForETHSupportingFeeOnTransferTokens()
- addLiquidityETH()

#### Remediation

We recommend setting reasonable minimum output amounts, instead of 0, based on token prices when calling the aforementioned functions.

#### Referrences:

What Are Sandwich Attacks in DeFi – and How Can You Avoid Them?.





#### PLAB-03 | Lack of Input Validation.

Category	Severity	Location	Status
Volatile Code	Minor	PornlabToken.sol: 395,14	Pending

#### **Description**

The given input is missing the check for the non-zero address.

The given input is missing the check for the setFeeEnabled, clearSwap almost all functions is missing required function.

#### Remediation

We advise the client to add the check for the passed-in values to prevent unexpected errors as below:

```
require(receiver != address(0), "Receiver is the zero address");
...
require(value X limitation, "Your not able to do this function");
...
```

We also recommend customer to review the following function that is missing a required validation. setFeeEnabled,clearSwap almost all functions is missing required function.





#### PLAB-04 | Centralized Risk In addLiquidity.

C	Category	Severity	Location	Status
	Coding Style	Major	PornlabToken.sol: 286,13	Pending

#### **Description**

uniswapV2Router.addLiquidityETH{value: ethAmount}(address(this), tokenAmount, 0, 0, owner(), block.timestamp);

The addLiquidity function calls the uniswapV2Router.addLiquidityETH function with the to address specified as owner() for acquiring the generated LP tokens from the PLAB-WBNB pool.

As a result, over time the \_owner address will accumulate a significant portion of LP tokens. If the \_owner is an EOA (Externally Owned Account), mishandling of its private key can have devastating consequences to the project as a whole.

#### Remediation

We advise the to address of the uniswapV2Router.addLiquidityETH function call to be replaced by the contract itself, i.e. address(this), and to restrict the management of the LP tokens within the scope of the contract's business logic. This will also protect the LP tokens from being stolen if the \_owner account is compromised. In general, we strongly recommend centralized privileges or roles in the protocol to be improved via a decentralized mechanism or via smart-contract based accounts with enhanced security practices, f.e. Multisignature wallets.

- 1. Indicatively, here are some feasible solutions that would also mitigate the potential risk:
- 2. Time-lock with reasonable latency, i.e. 48 hours, for awareness on privileged operations:
- 3. Assignment of privileged roles to multi-signature wallets to prevent single point of failure due to the private key;

Introduction of a DAO / governance / voting module to increase transparency and user involvement

#### **Project Action**

liquidity is going try V2Router.addLiquidityETH{value: bnbToBeAddedToLiquidity} (address(this), tokensToAddAsLiquidity, 0, 0, \_devWallet,





### PLAB-13 | Extra Gas Cost For User.

Category	Severity	Location	Status
Logical Issue	<ol> <li>Informational</li> </ol>	PornlabToken.sol: 249, 8	Not-Found

#### **Description**

The user may trigger a tax distribution during the transfer process, which will cost a lot of gas and it is unfair to let a single user bear it.

#### Remediation

We advise the client to make the owner responsible for the gas costs of the tax distribution.

#### **Project Action**





# Technical Findings Summary

#### **Classification of Risk**

Severity	Description
Critical	Risks are those that impact the safe functioning of a platform and must be addressed before launch. Users should not invest in any project with outstanding critical risks.
Major	Risks can include centralization issues and logical errors. Under specific circumstances, these major risks can lead to loss of funds and/or control of the project.
Medium	Risks may not pose a direct risk to users' funds, but they can affect the overall functioning of a platform
Minor	Risks can be any of the above but on a smaller scale. They generally do not compromise the overall integrity of the Project, but they may be less efficient than other solutions.
<ul><li>Informational</li></ul>	Errors are often recommended to improve the code's style or certain operations to fall within industry best practices. They usually do not affect the overall functioning of the code.

### **Findings**

Severity	Found	Pending	Resolved
Critical	0	0	0
Major	1	0	0
Medium	1	0	0
Minor	1	0	0
<ul><li>Informational</li></ul>	1	0	0
Total	4	0	-5





# **Social Media Checks**

Social Media	URL	Result
Twitter	https://twitter.com/PornLabAl	Pass
Other		Fail
Website	https://pornlab.ai/	Pass
Telegram	https://t.me/+kcn4DpJ0H6YyZWNk	Pass

We recommend to have 3 or more social media sources including a completed working websites.

**Social Media Information Notes:** 

**Auditor Notes: undefined** 

**Project Owner Notes:** 







# **Assessment Results**

#### **Score Results**

Review	Score
Overall Score	93/100
Auditor Score	80/100
Review by Section	Score
Manual Scan Score	45/50
SWC Scan Score	36/37
Advance Check Score	12/16

The Following Score System Has been Added to this page to help understand the value of the audit, the maximun score is 100, however to attain that value the project most pass and provide all the data needed for the assessment. Our Passing Score has been changed to 80 Points, if a project does not attain 80% is an automatic failure. Read our notes and final assessment below.

#### **Audit Passed**







#### **Assessment Results**

### **Important Notes:**

- No Vulnerabilities or issues were found.
- Several Coding practices are broken in the current code.
- current score is due to KYC, if no KYC through audit may be a failed one.
- Always DYOR.

# Auditor Score =80 Audit Passed







# **Appendix**

#### **Finding Categories**

#### **Centralization / Privilege**

Centralization / Privilege findings refer to either feature logic or implementation of components that actagainst the nature of decentralization, such as explicit ownership or specialized access roles incombination with a mechanism to relocate funds.

#### **Gas Optimization**

Gas Optimization findings do not affect the functionality of the code but generate different, more optimalEVM opcodes resulting in a reduction on the total gas cost of a transaction.

#### **Logical Issue**

Logical Issue findings detail a fault in the logic of the linked code, such as an incorrect notion on howblock.timestamp works.

#### **Control Flow**

Control Flow findings concern the access control imposed on functions, such as owneronly functionsbeing invoke-able by anyone under certain circumstances.

#### **Volatile Code**

Volatile Code findings refer to segments of code that behave unexpectedly on certain edge cases that mayresult in a vulnerability.

#### **Coding Style**

Coding Style findings usually do not affect the generated byte-code but rather comment on how to makethe codebase more legible and, as a result, easily maintainable.

#### **Inconsistency**

Inconsistency findings refer to functions that should seemingly behave similarly yet contain different code, such as a constructor assignment imposing different require statements on the input variables than a setterfunction.

#### **Coding Best Practices**

ERC 20 Conding Standards are a set of rules that each developer should follow to ensure the code meet a set of creterias and is readable by all the developers.





#### Disclaimer

CFGNINJA has conducted an independent security assessment to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the reviewed code for the scope of this assessment. This report does not constitute agreement, acceptance, or advocation for the Project, and users relying on this report should not consider this as having any merit for financial advice in any shape, form, or nature. The contracts audited do not account for any economic developments that the Project in question may pursue, and the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude, and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are entirely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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