

**Blockchain Security | Smart Contract Audits | KYC** 



## **NFTYInvestors**

# Audit

**Security Assessment** 

17.November,2022







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Version	Date	Description
1.0	15.November,2022	<ul><li>Layout project</li><li>Automated- /Manual-Security Testing</li><li>Summary</li></ul>

Network
Binance (BSC)

Website <a href="http://nftyinvestors.io">http://nftyinvestors.io</a>

Telegram <a href="https://t.me/nftyinvestors">https://t.me/nftyinvestors</a>

Twitter <a href="https://twitter.com/nftyinvestors">https://twitter.com/nftyinvestors</a>

Instagram
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Discord <a href="https://discord.gg/B5d5ZXFwas">https://discord.gg/B5d5ZXFwas</a>

#### **Description**

Our mission with NFTYInvestors is to provide the means for our community to participate in our high-reward opportunity ventures, while aggressively focusing on growing our partnered ventures and their returns.

Launching for presale in November 2022, NFTYInvestors is an ecosystem built by experts in the field, through the looking glass of our community, ie, you. At NFTYInvestors, we run a team of highly skilled opportunity seekers, who's sole goal is to locate, analyse and pin-point high reward opportunities.

Our presale is aimed at building the technology and community to push this forward. Our goal through NFTYInvestors is to provide our community with the opportunity to jump aboard our opportunities ecosystem, be part of our story and share our successes. Being part of the pre-sale, you will assist us to embark on our journey.

## **Project Engagement**

During the 15<sup>th</sup> of November 2022, **Lux World** team engaged Solidproof.io to audit the smart contracts that they created. The engagement was technical in nature and focused on identifying the security flaws in the design and implementation of the contracts. They provided Solidproof.io with access to their code repository and whitepaper.





#### **Contract Links**

v1.0

https://bscscan.com/address/0x05819756E6B6dA08E09493358291c7 28fccdFf1C#code

## **Vulnerability & Risk Level**

Risk represents the probability that a certain source-threat will exploit vulnerability, and the impact of that event on the organization or system. Risk Level is computed based on CVSS version 3.0.

Level	Value	Vulnerability	Risk (Required Action)
Critical	9 - 10	A vulnerability that can disrupt the contract functioning in a number of scenarios, or creates a risk that the contract may be broken.	Immediate action to reduce risk level.
High	7 – 8.9	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.	Implementation of corrective actions as soon as possible.
Medium	4 – 6.9	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.	Implementation of corrective actions in a certain period.
Low	2 – 3.9	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.	Implementation of certain corrective actions or accepting the risk.
Informational	0 – 1.9	A vulnerability that have informational character but is not effecting any of the code.	An observation that does not determine a level of risk

# **Auditing Strategy and Techniques Applied**

Throughout the review process, care was taken to evaluate the repository for security-related issues, code quality, and adherence to specification and best practices. To do so, reviewed line-by-line by our team of expert pentesters and smart contract developers, documenting any issues as there were discovered.

## Methodology

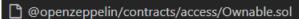
The auditing process follows a routine series of steps:

- 1. Code review that includes the following:
  - Review of the specifications, sources, and instructions provided to SolidProof to make sure we understand the size, scope, and functionality of the smart contract.
  - ii) Manual review of code, which is the process of reading source code line-byline in an attempt to identify potential vulnerabilities.
  - iii) Comparison to specification, which is the process of checking whether the code does what the specifications, sources, and instructions provided to SolidProof describe.
- 2. Testing and automated analysis that includes the following:
  - i) Test coverage analysis, which is the process of determining whether the test cases are actually covering the code and how much code is exercised when we run those test cases.
  - ii) Symbolic execution, which is analyzing a program to determine what inputs causes each part of a program to execute.
- 3. Best practices review, which is a review of the smart contracts to improve efficiency, effectiveness, clarify, maintainability, security, and control based on the established industry and academic practices, recommendations, and research.
- 4. Specific, itemized, actionable recommendations to help you take steps to secure your smart contracts.

## **Used Code from other Frameworks/Smart Contracts** (direct imports)

#### Imported packages:

@openzeppelin/contracts/token/ERC20/extensions/ERC20Capped.sol



#### **Tested Contract Files**

This audit covered the following files listed below with a SHA-1 Hash.

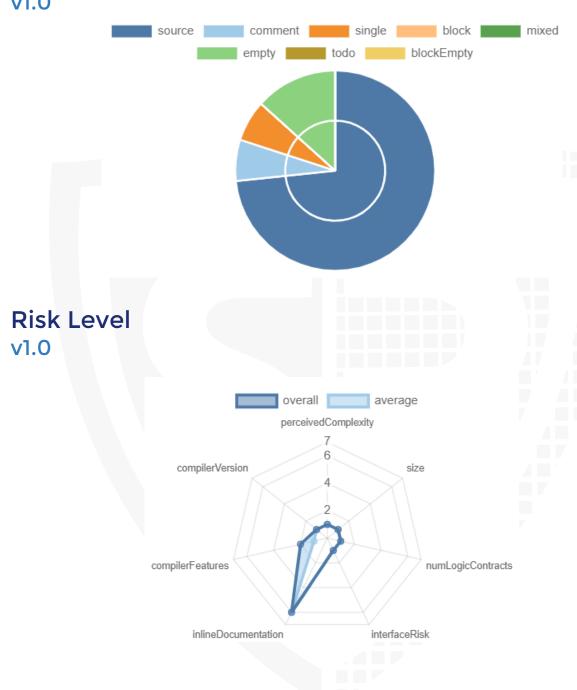
A file with a different Hash has been modified, intentionally or otherwise, after the security review. A different Hash could be (but not necessarily) an indication of a changed condition or potential vulnerability that was not within the scope of this review.

#### v1.0

File Name	SHA-1 Hash
contracts/nftyinvestors.sol	10dbede91a04545c60056b1df16d8b80e7209926

## **Metrics**

## Source Lines v1.0



## **Capabilities**

#### v1.0

#### **Components**

<b>➢</b> Contracts	<b>Libraries</b>	Interfaces	Abstract
1	0	0	0

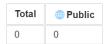
#### **Exposed Functions**

This section lists functions that are explicitly declared public or payable. Please note that getter methods for public stateVars are not included.

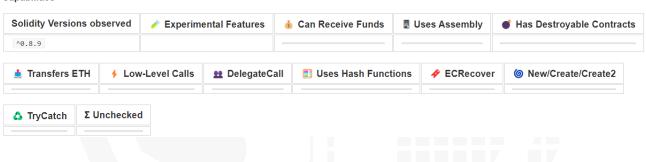


External	Internal	Private	Pure	View
0	1	0	0	0

#### **StateVariables**

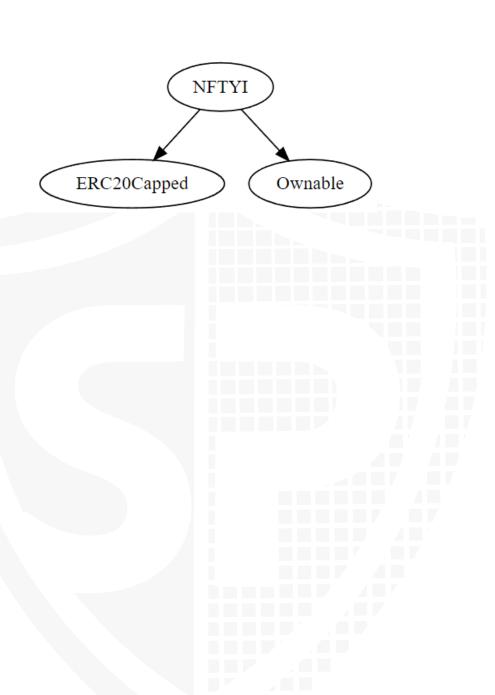


#### Capabilities



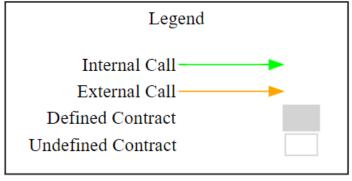
## **Inheritance Graph**

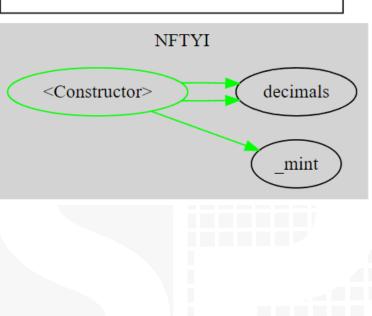
v1.0



### **Call Graph**

v1.0





#### Scope of Work/Verify Claims

The above token Team provided us with the files that needs to be tested (Github, Bscscan, Etherscan, files, etc.). The scope of the audit is the main contract (usual the same name as team appended with .sol).

We will verify the following claims:

- 1. Is contract an upgradeable
- 2. Correct implementation of Token standard
- 3. Deployer cannot mint any new tokens
- 4. Deployer cannot burn or lock user funds
- 5. Deployer cannot pause the contract
- 6. Deployer can set fees
- 7. Deployer can blacklist/antisnipe address
- 8. Overall checkup (Smart Contract Security)

#### Is contract an upgradeable

Name	
Is contract an upgradeable?	No



#### **Correct implementation of Token standard**

	ERC20			
Function	Description	Exist	Tested	Verified
totalSupply	Provides information about the total token supply			
balanceOf	Provides account balance of the owner's account			
transfer	Executes transfers of a specified number of tokens to a specified address			
transferFrom	Executes transfers of a specified number of tokens from a specified address			
approve	Allow a spender to withdraw a set number of tokens from a specified account			
allowance	Returns a set number of tokens from a spender to the owner			

## Deployer cannot mint any new tokens

Name	Exist	Tested	Status
Deployer cannot mint			
Max / Total Supply/Initial Supply	18.00.000.000		



#### Deployer cannot burn or lock user funds

Name	Exist	Tested	Status
Deployer cannot lock			
Deployer cannot burn			

#### **Comments:**

Users can burn their own tokens

#### **Deployer cannot pause the contract**

Name	Exist	Tested	Status
Deployer cannot pause			



#### **Deployer can set fees**

Name	Exist	Tested	Status
Deployer cannot set fees over 25%			
Deployer cannot set fees to nearly 100% or more			

#### **Comments:**

No fees/tax functionality

#### Deployer cannot blacklist/antisnipe addresses

Name	Exist	Tested	Status
Deployer can blacklist/antisnipe addresses			



## **Overall checkup (Smart Contract Security)**

Tested	Verified

#### Legend

Attribute	Symbol
Verified / Checked	
Partly Verified	
Unverified / Not checked	
Not available	

## **Modifiers and public functions**

v1.1

N/A

#### **Ownership Privileges:**

N/A

## **Source Units in Scope**

#### v1.0

File	Logic Contracts	Interfaces	Lines	nLines	nSLOC	Comment Lines	Complex. Score
contracts/nftyinvestors.sol	1		14	14	11	1	10
Totals	1		14	14	11	1	10

#### Legend

Attribute	Description	
Lines	total lines of the source unit	
nLines	normalized lines of the source unit (e.g. normalizes functions spanning multiple lines)	
nSLOC	normalized source lines of code (only source-code lines; no comments, no blank lines)	
Comment Lines	lines containing single or block comments	
Complexity Score	a custom complexity score derived from code statements that are known to introduce code complexity (branches, loops, calls, external interfaces,)	

## **Audit Results**

## **AUDIT PASSED**

#### **Critical issues**

No critical issues

## High issues

No high issues

#### **Medium issues**

#### No medium issues

#### Low issues

Issue	File	Туре	Line	Description
#1	Main	Floating Pragma		The current pragma Solidity directive is "^0.8.9". Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly. Locking the pragma helps to ensure that contracts do not accidentally get deployed using other versions

### Informational issues

Issue	File	Туре	Line	Description
#1	Main	NatSpec documentation missing	<b>-</b>	If you started to comment your code, also comment all other functions, variables etc.

#### **Audit Comments**

We recommend you to use the special form of comments (NatSpec Format, Follow link for more information <a href="https://docs.soliditylang.org/en/v0.5.10/natspec-format.html">https://docs.soliditylang.org/en/v0.5.10/natspec-format.html</a>) for your contracts to provide rich documentation for functions, return variables and more. This helps investors to make clear what that variables, functions etc. do.

#### 17. November, 2022:

- There is still an owner (Owner still has not renounced ownership)
- · Read the whole report and modifiers section for more information.

## **SWC Attacks**

I D	Title	Relationships	Status
S W C - 1 3 6	Unencrypted Private Data On-Chain	CWE-767: Access to Critical Private Variable via Public Method	PASSED
S W C 1 3 5	Code With No Effects	CWE-1164: Irrelevant Code	PASSED
S W C : 1 3 4	Message call with hardcoded gas amount	CWE-655: Improper Initialization	PASSED
SWC -1333	Hash Collisions With Multiple Variable Length Arguments	CWE-294: Authentication Bypass by Capture-replay	PASSED
S W C . 1 3 2	Unexpected Ether balance	CWE-667: Improper Locking	PASSED
<u>S</u> <u>W</u> <u>C</u> :	Presence of unused variables	CWE-1164: Irrelevant Code	PASSED

1 3 1 S W C 1 3 0	Right-To-Left- Override control character (U+202E)	CWE-451: User Interface (UI)  Misrepresentation of Critical Information	PASSED
S W C . 1 2 9	Typographical Error	CWE-480: Use of Incorrect Operator	PASSED
S W C	DoS With Block Gas Limit	CWE-400: Uncontrolled Resource Consumption	PASSED
S W C 1 2 7	Arbitrary Jump with Function Type Variable	CWE-695: Use of Low-Level Functionality	PASSED
S W C . 1 2 5	Incorrect Inheritance Order	CWE-696: Incorrect Behavior Order	PASSED
<u>S</u> <u>W</u> <u>C</u>	Write to Arbitrary	CWE-123: Write-what-where Condition	PASSED

1 2 4	Storage Location		
S W C : 1 2 3	Requirement Violation	CWE-573: Improper Following of Specification by Caller	PASSED
S W C : 1 2 2	Lack of Proper Signature Verification	CWE-345: Insufficient Verification of Data Authenticity	PASSED
S W C : 1 2 1	Missing Protection against Signature Replay Attacks	CWE-347: Improper Verification of Cryptographic Signature	PASSED
S W C : 1 2 0	Weak Sources of Randomness from Chain Attributes	CWE-330: Use of Insufficiently Random Values	PASSED
S W C : 1 1 9	Shadowing State Variables	CWE-710: Improper Adherence to Coding Standards	PASSED

S W C - 1 1 8	Incorrect Constructor Name	CWE-665: Improper Initialization	PASSED
S W C : 1 1 7	Signature Malleability	CWE-347: Improper Verification of Cryptographic Signature	PASSED
S W C : 1 1 6	Timestamp Dependence	CWE-829: Inclusion of Functionality from Untrusted Control Sphere	PASSED
S W C - 1 1 5	Authorization through tx.origin	CWE-477: Use of Obsolete Function	PASSED
S W C 1 1 4	Transaction Order Dependence	CWE-362: Concurrent Execution using Shared Resource with Improper Synchronization ('Race Condition')	PASSED
S W C : 1 1 1 3	DoS with Failed Call	CWE-703: Improper Check or Handling of Exceptional Conditions	PASSED

S W C - 1 1 2	Delegatecall to Untrusted Callee	CWE-829: Inclusion of Functionality from Untrusted Control Sphere	PASSED
S W C - 1 1 1	Use of Deprecated Solidity Functions	CWE-477: Use of Obsolete Function	PASSED
S W C - 1 1 0	Assert Violation	CWE-670: Always-Incorrect Control Flow Implementation	PASSED
SI W CI - 1 0 9	Uninitialized Storage Pointer	CWE-824: Access of Uninitialized Pointer	PASSED
S W C - 1 0 8	State Variable Default Visibility	CWE-710: Improper Adherence to Coding Standards	PASSED
S W C - 1 0 7	Reentrancy	CWE-841: Improper Enforcement of Behavioral Workflow	PASSED

S W C  -106	Unprotected SELFDESTR UCT Instruction	CWE-284: Improper Access Control	PASSED
S  W  C  - 1 0 5	Unprotected Ether Withdrawal	CWE-284: Improper Access Control	PASSED
S W C - 1 0 4	Unchecked Call Return Value	CWE-252: Unchecked Return Value	PASSED
S W C : 1 0 3	Floating Pragma	CWE-664: Improper Control of a Resource Through its Lifetime	NOT PASSED
S W C : 1 0 2	Outdated Compiler Version	CWE-937: Using Components with Known Vulnerabilities	PASSED
S W C : 1 0 1	Integer Overflow and Underflow	CWE-682: Incorrect Calculation	PASSED

S W C : 1 0 0	Function Default Visibility	CWE-710: Improper Adherence to Coding Standards	PASSED
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