

# STAYSAFU **AUDIT**

*July 31ST, 2022*

Faded and Famous NFT

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## AUDIT SUMMARY

This report was written for [Faded and Famous NFT](#) in order to find flaws and vulnerabilities in the [Faded and Famous NFT](#) project's source code, as well as any contract dependencies that weren't part of an officially recognized library.

A comprehensive examination has been performed, utilizing Static Analysis, Manual Review, and [Faded and Famous NFT](#) Deployment techniques. The auditing process pays special attention to the following considerations:

- ❖ Testing the smart contracts against both common and uncommon attack vectors
- ❖ Assessing the codebase to ensure compliance with current best practices and industry standards
- ❖ Ensuring contract logic meets the specifications and intentions of the client
- ❖ Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders
- ❖ Through line-by-line manual review of the entire codebase by industry expert

# AUDIT OVERVIEW

## PROJECT SUMMARY

Project name	Faded and Famous NFT
Description	Ethereum NFT project with Stackable Mutations & Crosschain Cryptocurrency [Faded and Famous: Team]
Platform	Ethereum
Language	Solidity
Codebase	MD5 Sum   File Name 2bad7b69331ace1e0cc7e576581b81f3 contract.sol

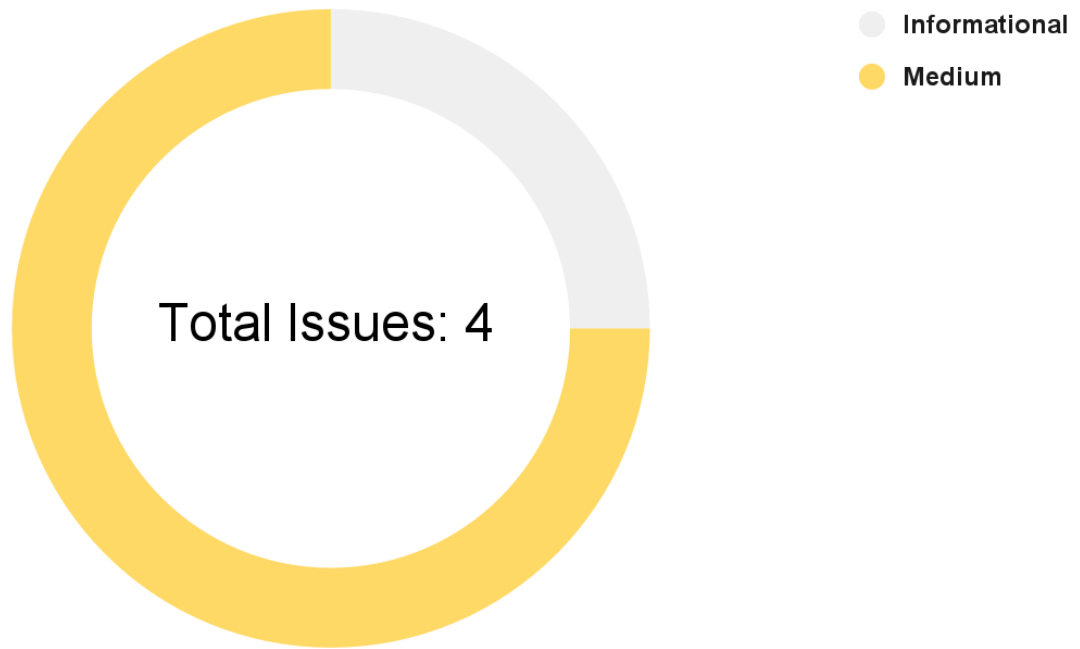
## FINDINGS SUMMARY

Vulnerability	Total
● Critical	0
● Major	0
● Medium	3
● Minor	0
● Informational	1

## EXECUTIVE SUMMARY

There have been no major or critical issues related to the codebase and all findings listed here range from informational to medium. The medium security issues are the dependence on a decentralized exchange platform, centralization of privileges, and missing threshold checks.

# AUDIT FINDINGS



Code	Title	Severity
CENT-1	Centralization of major privileges	● Medium
EXT-1	External protocol dependencies	● Medium
MATH-1	Divide before multiply	● Medium
MSG-1	Lack of NatSpec Comments	● Informational

# CENT-1 | Centralization of major privileges | FIXED

## Description

The `onlyOwner` modifier in the smart contract(s) give major privileges over them (`whitelist`, `start sale`)\*. This can be a problem, in the case of a hack, an attacker who has taken possession of this privileged account could damage the project and the investors.

\*This list is not exhaustive but presents the most sensitive points

## Recommendation

We recommend at least to use a multi-sig wallet as the owner address, and at best to establish a community governance protocol to avoid such centralization.

See: <https://solidity-by-example.org /app/multi-sig-wallet/>

## EXT-1 | Dependence to an external protocol

### Description

The contract serves as an underlying entity to interact with third party [OpenSea](#) protocols. The scope of the audit would treat this third party entity as black box and assume it is fully functional. However in the real world, third parties may be compromised and may have led to assets lost or stolen.

### Recommendation

We encourage the team to constantly monitor the security level of the entire [OpenSea](#) project, as the security of the token is highly dependent on the security of the decentralized exchange platform.



## MATH-1 | Divide before multiply

### Description

Certain operations in [Faded and Fresh NFT's](#) contract perform both multiplication and division operations on a variable, some instances of which perform division before multiplication. This is not best practice and should be avoided where possible, as it could lead to rounding errors. Where these division first operations have been identified are listed below.

- ❖ `-require` -> Line 148
- ❖ `-require` -> Line 151
- ❖ `-require` -> Line 154
- ❖ `-require` -> Line 157
- ❖ `-require` -> Line 160
- ❖ `-require` -> Line 163
- ❖ `-require` -> Line 166
- ❖ `-require` -> Line 169
- ❖ `-require` -> Line 172
- ❖ `-require` -> Line 184
- ❖ `-require` -> Line 187
- ❖ `-require` -> Line 193
- ❖ `-require` -> Line 196
- ❖ `-require` -> Line 199

## Recommendation

We recommend these found operations be modified to perform multiplication first and then division, in most cases simply swapping the division and multiplication operations should be sufficient however any changes made should be tested.

# MSG-1 | Limited NatSpec comments | FIXED

## Description

Throughout **Faded and Famous NFT's** contracts many functions remain uncommented. This can make understanding the code's functionality difficult for developers and users (if the code is open source) thus reducing maintainability.

## Recommendation

We recommend using **NatSpec** standard comments throughout all contracts.

See: <https://docs.soliditylang.org/en/v0.5.17/style-guide.html?highlight=natspec%23natspec>

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This report in no way provides investment advice, nor should be leveraged as investment advice of any sort. This report represents an extensive assessing process intending to help our customers increase the quality of their code while reducing the high level of risk presented by cryptographic tokens and blockchain technology.

Blockchain technology and cryptographic assets present a high level of ongoing risk.

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