

AUDIT.



Smart Contract Audit BRING TRUST IN YOUR PROJECT

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DESPAIR

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2021





FULL SMART CONTRACT AUDIT SOLIDITY CHECK

Audit SC Guarantees that every smart contract that has been audited has gone through both automated Smart Contract Scanner Softwares and is manually verified by one of our highly experienced smart contract experts.

Smart Contracts

despairToken: 0x1d4C60A3369FB1BF1a7Fa015E127FE1B559f81Cf

MasterChef: 0x9F77B75E70c86481d4595Ecd3C9D56341A48C184

TimeLock(24hs): 0x97c2721E1ab6eF722e3446091D47961D46778643

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DISCLAIMER

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

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OVERVIEW

PROJECT SUMMARY

Project Name Despair Token | Despair Token Masterchef | Timelock

Platform Polygon

Language Solidity

AUDIT SUMMARY

Date 03-10-2021

Audit Type Static Analysis, Manual Review

Audit Result PASSED

RISK SUMMARY

Risk Level	Total	Found	Pending	Solved	Acknowledgde	Objected
Critical	0	0	0	0	0	0
Major	0	0	0	0	0	0
Medium	0	0	0	0	0	0
Minor	0	0	0	0	0	0
Informative	34	34	0	0	34	0
Discussion	0	0	0	0	0	0

FINDINGS Despair Token

Public functions can be declared External

Category	Risk Level	Number of Findings	Status
Gas Optimization	Informative	14	Acknowledgde

FINDINGS Despair Token Masterchef

Public functions can be declared External

Category	Risk Level	Number of Findings	Status
Gas Optimization	Informative	14	Acknowledgde

FINDINGS Timelock

Public functions can be declared External

Category	Risk Level	Number of Findings	Status
Gas Optimization	Informative	6	Acknowledgde

AUDIT FINDINGS Despair Token

Public functions can be declared External

renounceOwnership() should be declared external:

- *Ownable.renounceOwnership() (despairToken.sol#173-175)*

transferOwnership(address) should be declared external:

- *Ownable.transferOwnership(address) (despairToken.sol#181-184)*

name() should be declared external:

- *ERC20.name() (despairToken.sol#244-246)*

symbol() should be declared external:

- *ERC20.symbol() (despairToken.sol#252-254)*

decimals() should be declared external:

- *ERC20.decimals() (despairToken.sol#269-271)*

totalSupply() should be declared external:

- *ERC20.totalSupply() (despairToken.sol#276-278)*

balanceOf(address) should be declared external:

- *ERC20.balanceOf(address) (despairToken.sol#283-285)*

transfer(address,uint256) should be declared external:

- *ERC20.transfer(address,uint256) (despairToken.sol#295-298)*

allowance(address,address) should be declared external:

- *ERC20.allowance(address,address) (despairToken.sol#303-305)*

approve(address,uint256) should be declared external:

- *ERC20.approve(address,uint256) (despairToken.sol#314-317)*

transferFrom(address,address,uint256) should be declared external:

- *ERC20.transferFrom(address,address,uint256) (despairToken.sol#332-346)*

increaseAllowance(address,uint256) should be declared external:

- *ERC20.increaseAllowance(address,uint256) (despairToken.sol#360-363)*

decreaseAllowance(address,uint256) should be declared external:

- *ERC20.decreaseAllowance(address,uint256) (despairToken.sol#379-387)*

mint(address,uint256) should be declared external:

- *DespairToken.mint(address,uint256) (despairToken.sol#549-551)*

AUDIT FINDINGS Despair Token Masterchef

Public functions can be declared External

renounceOwnership() should be declared external:

- *Ownable.renounceOwnership() (despairMasterchef.sol#442-444)*

transferOwnership(address) should be declared external:

- *Ownable.transferOwnership(address) (despairMasterchef.sol#450-453)*

name() should be declared external:

- *ERC20.name() (despairMasterchef.sol#514-516)*

symbol() should be declared external:

- *ERC20.symbol() (despairMasterchef.sol#522-524)*

decimals() should be declared external:

- *ERC20.decimals() (despairMasterchef.sol#539-541)*

totalSupply() should be declared external:

- *ERC20.totalSupply() (despairMasterchef.sol#546-548)*

balanceOf(address) should be declared external:

- *ERC20.balanceOf(address) (despairMasterchef.sol#553-555)*

transfer(address,uint256) should be declared external:

- *ERC20.transfer(address,uint256) (despairMasterchef.sol#565-568)*

allowance(address,address) should be declared external:

- *ERC20.allowance(address,address) (despairMasterchef.sol#573-575)*

approve(address,uint256) should be declared external:

- *ERC20.approve(address,uint256) (despairMasterchef.sol#584-58)*

transferFrom(address,address,uint256) should be declared external:

- *ERC20.transferFrom(address,address,uint256) (despairMasterchef.sol#602-616)*

increaseAllowance(address,uint256) should be declared external:

- *ERC20.increaseAllowance(address,uint256) (despairMasterchef.sol#630-633)*

decreaseAllowance(address,uint256) should be declared external:

- *ERC20.decreaseAllowance(address,uint256) (despairMasterchef.sol#649-657)*

mint(address,uint256) should be declared external:

- *DespairToken.mint(address,uint256) (despairMasterchef.sol#924-926)*

AUDIT FINDINGS TimeLock

Public functions can be declared External

setDelay(uint256) should be declared external:

- *Timelock.setDelay(uint256) (Timelock24h.sol#48-55)*

acceptAdmin() should be declared external:

- *Timelock.acceptAdmin() (Timelock24h.sol#57-63)*

setPendingAdmin(address) should be declared external:

- *Timelock.setPendingAdmin(address) (Timelock24h.sol#65-76)*

queueTransaction(address,uint256,string,bytes,uint256) should be declared external:

- *Timelock.queueTransaction(address,uint256,string,bytes,uint256) (Timelock24h.sol#78-87)*

cancelTransaction(address,uint256,string,bytes,uint256) should be declared external:

- *Timelock.cancelTransaction(address,uint256,string,bytes,uint256) (Timelock24h.sol#89-96)*

executeTransaction(address,uint256,string,bytes,uint256) should be declared external:

- *Timelock.executeTransaction(address,uint256,string,bytes,uint256) (Timelock24h.sol#98-123)*

AUDIT RESULT

Basic Coding Bugs

1. Constructor Mismatch

o Description: Whether the contract name and its constructor are not identical to each other.

o Result: PASSED

o Severity: Critical

Ownership Takeover

o Description: Whether the set owner function is not protected.

o Result: PASSED

o Severity: Critical

Redundant Fallback Function

o Description: Whether the contract has a redundant fallback function.

o Result: PASSED

o Severity: Critical

Overflows & Underflows

Description: Whether the contract has general overflow or underflow

Vulnerabilities

o Result: PASSED

o Severity: Critical

Reentrancy

o Description: Reentrancy is an issue when code can call back into your contract and change state, such as withdrawing ETHs.

o Result: PASSED

o Severity: Critical

MONEY-Giving Bug

o Description: Whether the contract returns funds to an arbitrary address.

o Result: PASSED

o Severity: High

Blackhole

o Description: Whether the contract locks ETH indefinitely; merely in without out.

o Result: PASSED

o Severity: High

Unauthorized Self-Destruct

o Description: Whether the contract can be killed by any arbitrary address.

o Result: PASSED

o Severity: Medium

Revert DoS

o Description: Whether the contract is vulnerable to DoS attack because of unexpected revert.

o Result: PASSED

o Severity: Medium

Unchecked External Call

o Description: Whether the contract has any external call without checking the return value.

o Result: PASSED

o Severity: Medium

Gasless Send

o Description: Whether the contract is vulnerable to gasless send.

o Result: PASSED

o Severity: Medium

Send Instead of Transfer

o Description: Whether the contract uses send instead of transfer.

o Result: PASSED

o Severity: Medium

Costly Loop

o Description: Whether the contract has any costly loop which may lead to Out-Of-Gas exception.

o Result: PASSED

o Severity: Medium

(Unsafe) Use of Untrusted Libraries

o Description: Whether the contract use any suspicious libraries.

o Result: PASSED

o Severity: Medium

(Unsafe) Use of Predictable Variables

o Description: Whether the contract contains any randomness variable, but its value can be predicated.

o Result: PASSED

o Severity: Medium

Transaction Ordering Dependence

o Description: Whether the final state of the contract depends on the order of the transactions.

o Result: PASSED

o Severity: Medium

.Deprecated Uses

o Description: Whether the contract use the deprecated tx.origin to perform the authorization.

o Result: PASSED

o Severity: Medium



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CONTACTUS

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