

SMART CONTRACT REVIEW AND SECURITY REPORT





COMPLETED ON AUGUST 3, 2022







160 Robinson Road, #14-04 Singapore Singapore (068914) support@daudit.org



IMPORTANT STATS

TAX

No tax

OWNER CAN SET FEES

Owner can't set fees

MAX TX AMOUNT

Owner can't set max tx amount

OWNERSHIP

Owner can't renounce or transfer ownership

MINT FUNCTION

Owner can mint unlimitted token

PAUSE

Owner can't pause trading

BLACKLIST

Owner can't set blacklist

WHITELIST

Owner can't set whitelist



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OVERVIEW

This audit has been prepared for Hectagon to review their Smart Contract Code and Security. This audit report aims to help investors make an informative decision during the project research.

In this report, you will find a summarized review of the following key points:

- ✓ Contract's source code
- ✓ Contract's function
- ✓ Owner's wallets
- ✓ Important Technical Stats
- ✓ Good Practices
- ✓ Recommendation

This document may contain confidential information about IT systems and the intellectual property of the Customer as well as information about potential vulnerabilities and methods of their exploitation.

The report containing confidential information can be used internally by the Customer, or it can be disclosed publicly after all vulnerabilities are fixed — upon a decision of the Customer.

- ► This Audit report DOES NOT guarantee nor reflect the outcome and goal of the project.
- ▶ DAudit's audit process only guarantees that the smart contract code has been verified not to have security breaches.

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CONTRACT INFORMATION

Token Name Symbol Type
Hectagon HECTA ERC-20

Contract Name

HectagonERC20

Website

https://hectagon.finance/

Technical Documentation

https://docs.hectagon.finance/

Contract Address

0x343915085b919fbd4414F7046f903d 194c6F60EE

Network

Binance Smart Chain

Language

Solidity

Compiler Version

v0.8.10+commit.fc410830

Optimization

Yes with 800 runs

Decimals

9

Total Supply

75,000

DAUDIT CONTRACT REVIEW PROCESS

Smart Contract Code review process:

- ✓ Testing the smart contracts against both common and uncommon vulnerabilities.
- ✓ 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.
- ✓ Thorough line-by-line manual review of the entire codebase by industry experts.

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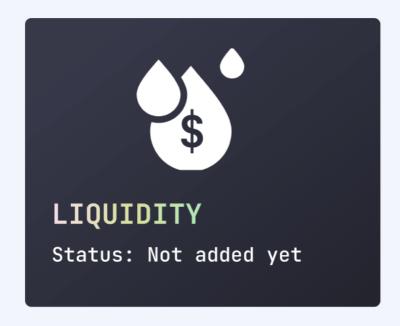


PROJECT TECHNICAL INFORMATION

(AS OF AUGUST 3RD, 2022)

STATUS:

HAVEN'T LAUNCHED YET



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VULNERABILITY CHECK

CODE REVIEW

Design Logic	Passed
Compiler Warnings	Passed
Private user data leaks	Passed
Timestamp dependence	Passed
Integer overflow and underflow	Passed
Race conditions and reentrancy. Cross-function race conditions	Passed
Possible delays in data delivery	Passed
Oracle Calls	Passed
Front Running	Passed
DoS with block gas limit	Passed
DoS with Revert	Passed
Methods execution permissions	Passed
Economy model	Passed
Impact of the exchange rate on the logic	Passed
Malicious Event Log	Passed
Scoping and declarations	Passed
Uninitialized storage pointers	Passed
Arithmetic accuracy	Passed
Cross function race conditions	Passed
Safe Zeppelin module	Passed
Fallback function security	Passed

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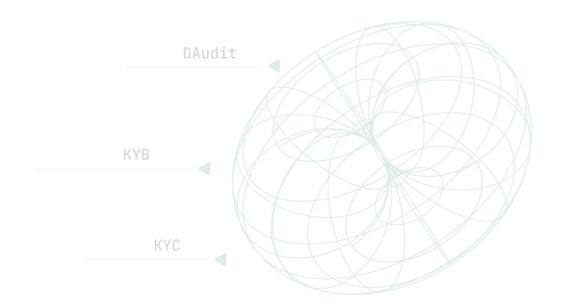


VULNERABILITY CHECK

FUNCTION REVIEW

Business Logics Review Functionality Checks	Passed
Access Control & Authorization	Passed
Escrow manipulation	Passed
Token Supply manipulation	Passed
Assets integrity	Passed
User Balances manipulation	Passed
Data Consistency manipulation	Passed
Kill - Switch Mechanism Operation Trails & Event Generation	Passed

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RISK LEVELS

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time. We categorize these vulnerabilities by the following levels:

Critical

Critical vulnerabilities are usually straightforward to exploit and can lead to asset loss or data manipulations.

High

High-level vulnerabilities are difficult to exploit; however, they also have a 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 asset loss or data manipulations.

Low

Low-level vulnerabilities are mostly related to outdated, unused, etc. code snippets that can't have a significant impact on execution.

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RISK FOUND 01

CRITICAL

User/contract with role is Vault can mint token with maximum value stored in maxMint. And user/contract with role governor can be update value of maxMint.

```
function mint(address account_, uint256 amount_) external override onlyVault {
    require((totalSupply() + amount_) <= maxMint, "HECTA: mint amount exceeds maxMint");
    _mint(account_, amount_);
}</pre>
```

```
uint256 public maxMint = 20_000_000 * 1e9;
```

```
function setMaxMint(uint256 maxMin_) external onlyGovernor {
    maxMint = maxMin_;
}
```

Recommendation:

maxMint value should be a constant.

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RISK FOUND 02

MEDIUM _____

Anyone that the user approves can burn their tokens

```
function burnFrom(address account_, uint256 amount_) external override {
    _burnFrom(account_, amount_);
}

function _burnFrom(address account_, uint256 amount_) internal {
    require(allowance(account_, msg.sender) >= amount_, "ERC20: burn amount exceeds allowance");
    uint256 decreasedAllowance_ = allowance(account_, msg.sender) - amount_;

    _approve(account_, msg.sender, decreasedAllowance_);
    _burn(account_, amount_);
}
```

Recommendation:

Users should consider carefully before performing approve function.

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HECTAGON GOOD PRACTICES FOUND



The owner cannot set fees



The owner cannot stop or pause the contract.



The smart contract utilizes "SafeMath" to prevent overflows.



The owner cannot limit transaction amount.



The owner cannot stop or pause trading.

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ABOUT DAUDIT

DAudit offers Smart Contract vulnerability and quality testing services at a rapid pace to ensure that projects do not fall behind the market.

Experienced

A group of
experienced
blockchain
developers
built many
successful DApp
applications
and are
familiar with
security flaws.

Fast

Within 6 hours, the audit report will be on your desk! We also have professional consultation and support staff available around the clock.

Careful

We deeply
analyze the
smart contracts
line by line
and cover the
smart contracts
with both
automated and
manual testing.

Affordable

Affordable
We provide the
most
competitive
price in the
industry, with
audit reports
ranging from
\$500 to \$1,000,
KYC services
start at \$1000,
and KYB
services start
at \$2,000

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DISCLAIMER

DAudit Disclaimer

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The smart contracts submitted for audit were examined in accordance with best industry practices at the time of this report in terms of cybersecurity vulnerabilities and issues in smart contract source code, which are detailed in this report (Source Code); the Source Code compilation, deployment, and functionality (performing the intended functions).

The audit makes no claims or guarantees about the code's security. It also cannot be deemed an adequate appraisal of the code's utility and safety, bug-free status, or any other contractual assertions. While we did our best in completing the study and generating this report, it is crucial to emphasize that you should not rely only on this report; we advocate doing many independent audits and participating in a public bug bounty program to assure smart contract security.

The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed

Technical Disclaimer

Smart Contracts are deployed and executed on a blockchain platform. The platform, its programming language, and other software related to the smart contract can have vulnerabilities that can lead to hacks. Thus, the audit can't guarantee the explicit security of the audited smart contracts.