

Advanced Manual Smart Contract Audit

November 20, 2024

- CoinsultAudits
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Audit requested by





Global Overview

Manual Code Review

In this audit report we will highlight the following issues:

| Vulnerability Level | Total | Pending | Acknowledged | Resolved |
|---------------------------------|-------|---------|--------------|----------|
| Informational | 0 | 0 | 0 | 0 |
| Low-Risk | 0 | 0 | 0 | 0 |
| Medium-Risk | 0 | 0 | 0 | 0 |
| High-Risk | 0 | 0 | 0 | 0 |



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Audit Summary

| Project Name | iDegen |
|-------------------------|---|
| Website | https://idegen.ai/ |
| Blockchain | Ethereum |
| Smart Contract Language | Solidity |
| Contract Address | 0xCFC1b9f160b4dd1959D78bF1658e7d06ddf35de2 & 0x290b7f18869F4b1632d31aC4cffC6ea00493363B |
| Audit Method | Static Analysis, Manual Review |
| Date of Audit | 20 November 2024 |

This audit report has been prepared by Coinsult's experts at the request of the client. In this audit, the results of the static analysis and the manual code review will be presented. The purpose of the audit is to see if the functions work as intended, and to identify potential security issues within the smart contract.

The information in this report should be used to understand the risks associated with the smart contract. This report can be used as a guide for the development team on how the contract could possibly be improved by remediating the issues that were identified.



Audit Scope

Coinsult was comissioned by iDegen to perform an audit based on the following code:

https://etherscan.io/address/0xCFC1b9f160b4dd1959D78bF1658e7d06ddf35de2#code

Note that we only audited the code available to us on this URL at the time of the audit. If the URL is not from any block explorer (main net), it may be subject to change. Always check the contract address on this audit report and compare it to the token you are doing research for.

Audit Method

Coinsult's manual smart contract audit is an extensive methodical examination and analysis of the smart contract's code that is used to interact with the blockchain. This process is conducted to discover errors, issues and security vulnerabilities in the code in order to suggest improvements and ways to fix them.

Automated Vulnerability Check

Coinsult uses software that checks for common vulnerability issues within smart contracts. We use automated tools that scan the contract for security vulnerabilities such as integer-overflow, integer-underflow, out-of-gas-situations, unchecked transfers, etc.

Manual Code Review

Coinsult's manual code review involves a human looking at source code, line by line, to find vulnerabilities. Manual code review helps to clarify the context of coding decisions. Automated tools are faster but they cannot take the developer's intentions and general business logic into consideration.

Used tools

- Slither: Solidity static analysis framework

- Remix: IDE Developer Tool

- CWE: Common Weakness Enumeration

- SWC: Smart Contract Weakness Classification and Test Cases

- DEX: Testnet Blockchains



Risk Classification

Coinsult uses certain vulnerability levels, these indicate how bad a certain issue is. The higher the risk, the more strictly it is recommended to correct the error before using the contract.

| Vulnerability Level | Description |
|---------------------------------|--|
| Informational | Does not compromise the functionality of the contract in any way |
| Low-Risk | Won't cause any problems, but can be adjusted for improvement |
| Medium-Risk | Will likely cause problems and it is recommended to adjust |
| High-Risk | Will definitely cause problems, this needs to be adjusted |

Coinsult has four statuses that are used for each risk level. Below we explain them briefly.

| Risk Status | Description |
|--------------|--|
| Total | Total amount of issues within this category |
| Pending | Risks that have yet to be addressed by the team |
| Acknowledged | The team is aware of the risks but does not resolve them |
| Resolved | The team has resolved and remedied the risk |



SWC Attack Analysis

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 | Description | Status |
|---------|--------------------------------------|--------|
| SWC-100 | Function Default Visibility | Passed |
| SWC-101 | Integer Overflow and Underflow | Passed |
| SWC-102 | Outdated Compiler Version | Passed |
| SWC-103 | Floating Pragma | Passed |
| SWC-104 | Unchecked Call Return Value | Passed |
| SWC-105 | Unprotected Ether Withdrawal | Passed |
| SWC-106 | Unprotected SELFDESTRUCT Instruction | Passed |
| SWC-107 | Reentrancy | Passed |
| SWC-108 | State Variable Default Visibility | Passed |
| SWC-109 | Uninitialized Storage Pointer | Passed |
| SWC-110 | Assert Violation | Passed |
| SWC-111 | Use of Deprecated Solidity Functions | Passed |
| SWC-112 | Delegatecall to Untrusted Callee | Passed |
| SWC-113 | DoS with Failed Call | Passed |
| SWC-114 | Transaction Order Dependence | Passed |
| SWC-115 | Authorization through tx.origin | Passed |
| | | |



| SWC-116 | Block values as a proxy for time | Passed |
|---------|---|--------|
| SWC-117 | Signature Malleability | Passed |
| SWC-118 | Incorrect Constructor Name | Passed |
| SWC-119 | Shadowing State Variables | Passed |
| SWC-120 | Weak Sources of Randomness from Chain Attributes | Passed |
| SWC-121 | Missing Protection against Signature Replay Attacks | Passed |
| SWC-122 | Lack of Proper Signature Verification | Passed |
| SWC-123 | Requirement Violation | Passed |
| SWC-124 | Write to Arbitrary Storage Location | Passed |
| SWC-125 | Incorrect Inheritance Order | Passed |
| SWC-126 | Insufficient Gas Griefing | Passed |
| SWC-127 | Arbitrary Jump with Function Type Variable | Passed |
| SWC-128 | DoS With Block Gas Limit | Passed |
| SWC-129 | Typographical Error | Passed |
| SWC-130 | Right-To-Left-Override control character (U+202E) | Passed |
| SWC-131 | Presence of unused variables | Passed |
| SWC-132 | Unexpected Ether balance | Passed |
| SWC-133 | Hash Collisions With Multiple Variable Length Arguments | Passed |
| SWC-134 | Message call with hardcoded gas amount | Passed |
| SWC-135 | Code With No Effects | Passed |
| SWC-136 | Unencrypted Private Data On-Chain | Passed |
| | | |



Other Owner Privileges Check

| Error Code | Description |
|------------|-------------------------------------|
| CEN-100 | Centralization: Operator Priviliges |

Coinsult lists all important contract methods which the owner can interact with.

✓ No other important owner privileges to mention.



Notes

Notes by iDegen

No notes provided by the team.

Notes by Coinsult

No notes provided by Coinsult



Contract Snapshot

This is how the constructor of the contract looked at the time of auditing the smart contract.

Not available



Website Review

Coinsult checks the website completely manually and looks for visual, technical and textual errors. We also look at the security, speed and accessibility of the website. In short, a complete check to see if the website meets the current standard of the web development industry.

```
. ltrim(preg_replace('/\\\\', '/', $image_src), '/');
               Empty.html
                                                                                                                                                                                                                                                          $_SESSION['_CAPTCHA']['config'] = serialize($captcha_config);

    send_form_email.php

                                                                                                                                                                                                                                                                           code! => $captcha_config['code'],
      custom.css
                                                                                                                                                                                                                   [[(!function_exists('hex2rgb') ) {
                                                                                                                                                                                                                                                       unction_exists('hex2rgb') ) {

Station hex2rgb($hex_str, $return_string = false, $separator = '') {

$rgb_array : array();

$frgb_array : array();

$frgb_array();

$f
 theme.css
                                                                                                                                                                                                                           $rgb_array = array();
$color_val = brxdec($hex_str);
$rgb_array['r'] = 0xFF & ($color_val >> 0x10);
$rgb_array['b'] = 0xFF & ($color_val >> 0x8);
$rgb_array['b'] = 0xFF & ($color_val >> 0x8);
$rgb_array['b'] = bxff & ($color_val >> 0x8);
$rgb_array['r'] = bexdec(str_repeat(substr($hex_str, 0, 1), 2));
$rgb_array['g'] = hexdec(str_repeat(substr($hex_str, 1, 1), 2));
$rgb_array['g'] = hexdec(str_repeat(substr($hex_
theme-animate.css
   heme-blog.css
 heme-elements.css
   eme-shop.css
                                                                                                                                                                                                                                                           Irm $return_string ? implode($separator, $rek
   -php-captcha
                                                                                                                                    108 // Draw the image
110 if isset($_GET[' ...
```

| Type of check | Description |
|---------------------------|--|
| Mobile friendly? | The website is mobile friendly |
| Contains jQuery errors? | The website does not contain jQuery errors |
| Is SSL secured? | The website is SSL secured |
| Contains spelling errors? | The website does not contain spelling errors |



Certificate of Proof

Not KYC verified by Coinsult

iDegen

Audited by Coinsult.net



Date: 20 November 2024

✓ Advanced Manual Smart Contract Audit



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Coinsult is not responsible if a project turns out to be a scam, rug-pull or honeypot. We only provide a detailed analysis for your own research.

Coinsult is not responsible for any financial losses. Nothing in this contract audit is financial advice, please do your own research.

The information provided in this audit is for informational purposes only and should not be considered investment advice. Coinsult does not endorse, recommend, support or suggest to invest in any project.

Coinsult can not be held responsible for when a project turns out to be a rug-pull, honeypot or scam.



End of report Smart Contract Audit

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