



MOTECH AUDIT

SMART CONTRACT SECURITY AUDIT

SECURITY ASSESSMENT

CHRONOTECH TOKEN AUDIT REPORT

2021



22 DEC 2021

SECURITY ASSESMENT

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SUMMARY

This report has been prepared for ChronoTech to discover issues and vulnerabilities in the source code of the ChronoTech project as well as any contract dependencies that were not part of an officially recognized library. A comprehensive examination has been performed, utilizing Static Analysis, Manual Review, and Testnet 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.
- Thorough line-by-line manual review of the entire codebase by industry experts.

The security assessment resulted in findings that ranged from critical to informational. We recommend addressing these findings to ensure a high level of security standards and industry practices. We suggest recommendations that could better serve the project from the security perspective:

- Enhance general coding practices for better structures of source codes;
- Add enough unit tests to cover the possible use cases given they are currently missing in the repository;
- Provide more comments per each function for readability, especially contracts are verified in public;
- Provide more transparency on privileged activities once the protocol is live.



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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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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.



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BACKGROUND

MotechAudit was commissioned by ChronoTech to perform an audit of smart contracts:

<https://etherscan.io/address/0x80ce3027a70e0a928d9268994e9b85d03bd4cdcf>

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.



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AUDIT DETAILS



AUDITED PROJECT

ChronoTech



DEPLOYER ADDRESS

0x24495670DB97F50a404400d7aA155537E2fE09e8



CLIENT CONTACTS:

ChronoTech team



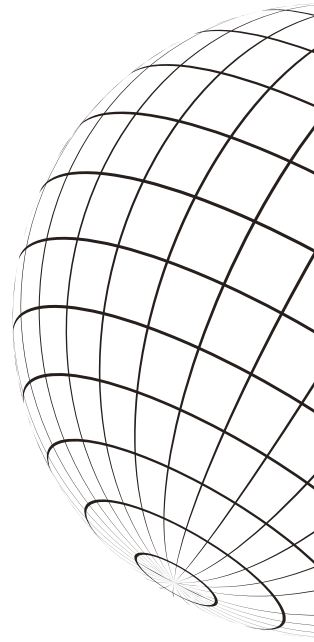
BLOCKCHAIN

Ethereum Project



WEBSITE:

<https://chrono.tech/>

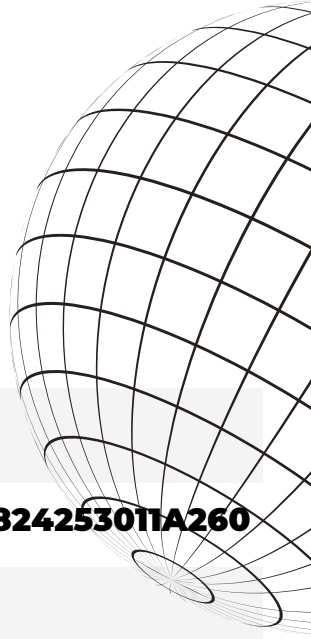


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CONTRACT DETAILS

Token contract details for Oct-25-2020



Contract name	ChronoTech
Contract address	0x485d17A6f1B8780392d53D64751824253011A260
Total supply	710,112.8108 TIME
Token ticker	ChronoTech Token (TIME)
Decimals	18
Token holders	1,211
Transactions count	7,641
Top 100 holders dominance	97.62%
Contract deployer address	0x24495670DB97F50a404400d7aA155537E2fE09e8
Contract's current owner address	0x24495670DB97F50a404400d7aA155537E2fE09e8



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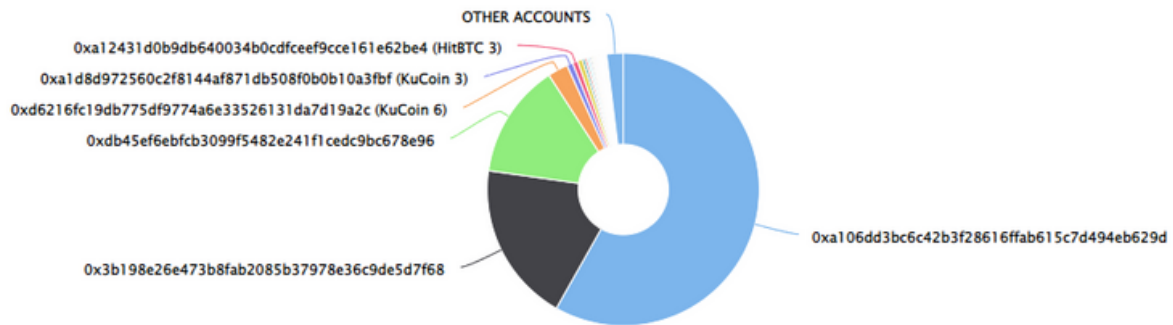
CHRONOTECH TOKEN DISTRIBUTION

The top 100 holders collectively own 98.03% (696,157.41 Tokens) of ChronoTech Token

Token Total Supply: 710,112.81 Token | Total Token Holders: 1,212

ChronoTech Token Top 100 Token Holders

Source: Etherscan.io



(A total of 696,157.41 tokens held by the top 100 accounts from the total supply of 710,112.81 token)

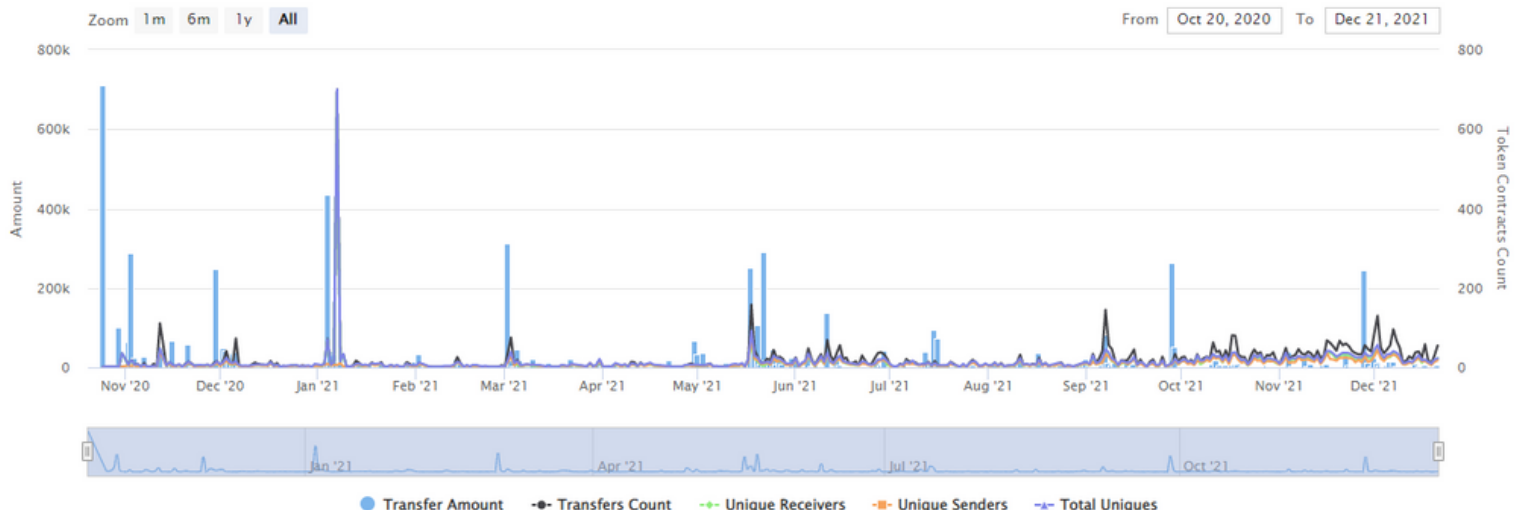
CHRONOTECH TOKEN CONTRACT INTERACTION DETAILS

Time Series: Token Contract Overview

Sun 25, Oct 2020 - Tue 21, Dec 2021

Token Contract 0x485d17A6f1B8780392d53D64751824253011A260 (ChronoTech Token)















Source: Etherscan.io



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TOP 10 TOKEN HOLDERS

Rank	Address	Quantity	Percentage	Value	Analytics
1	 0xa106dd3bc6c42b3f28616ffab615c7d494eb629d	413,275.35491378	58.1985%	\$27,582,716.70	
2	 0x3b198e26e473b8fab2085b37978e36c9de5d7f68	135,016.5892974	19.0134%	\$9,011,242.23	
3	 0xdb45ef6ebfcb3099f5482e241f1cedc9bc678e96	96,610.94311706	13.6050%	\$6,447,982.54	
4	KuCoin 6	17,003	2.3944%	\$1,134,809.82	
5	KuCoin 3	5,122.07348017	0.7213%	\$341,856.10	
6	HitBTC 3	4,384.72474933	0.6175%	\$292,644.16	
7	 Uniswap V2: TIME 10	4,193.48375546	0.5905%	\$279,880.41	
8	0x6e1afb4397eb2ee60e7312cc6c355914d2fa1f2b	2,164.69856058	0.3048%	\$144,475.75	
9	0xea9d3fb7c8bab79031919c0068be8838a96d6841	1,759.89293528	0.2478%	\$117,458.32	
10	0xc0d3e44c3b8a0cecc3734482ce4cb2b8791e0de4	1,698.425	0.2392%	\$113,355.84	

source<https://etherscan.io/>

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SECURITY ISSUES

✓ High Severity Issues

No high severity issues found.

✓ Medium Severity Issues

No medium severity issues found.

⚠ Low Severity Issues

1. Too many digits

Literals with many digits are difficult to read and review

Contract: CGUToken.sol

Function: init

Recommendation: Please consider using scientific notation (ie: 1e9 instead of 1000000000).

2. A public function that could be declared external. public functions that are never called by the contract should be declared external to save gas

Contract: CGUToken.sol

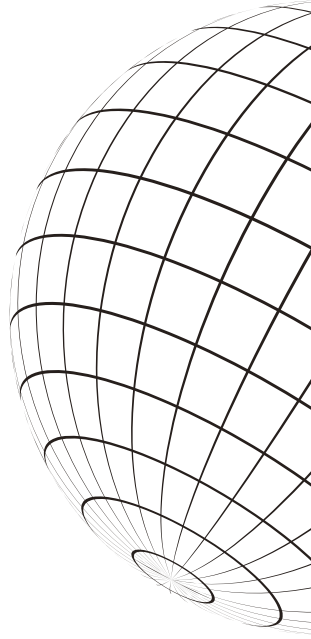
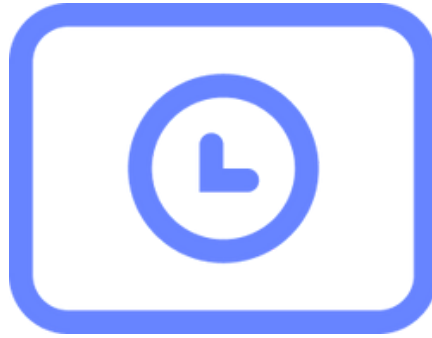
Functions: transferAndCall, getLockedAmount

Recommendation: Use the external attribute for functions never called from the contract.



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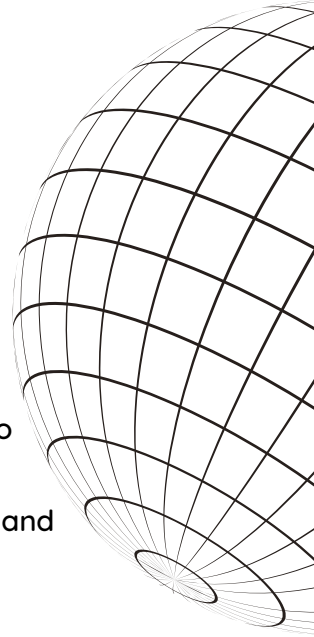
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SECURITY ASSESMENT CONCLUSION

Smart contracts contain owner privileges!

Motech Audit note: Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.



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