



MOTECH AUDIT

SMART CONTRACT SECURITY AUDIT

SECURITY ASSESSMENT

**STUDENT COIN
AUDIT REPORT**

2021



1 DEC 2021

SECURITY ASSESMENT

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SUMMARY

This report has been prepared for Student Coin smart contracts, to discover issues and vulnerabilities in the source code of their Smart Contract as well as any contract dependencies that were not part of an officially recognized library. A comprehensive examination has been performed, utilizing Static Analysis and Manual Review 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 Student Coin to perform an audit of smart contracts:

<https://etherscan.io/address/0x15b543e986b8c34074dfc9901136d9355a537e7e>

The purpose of the audit was to achieve the following:

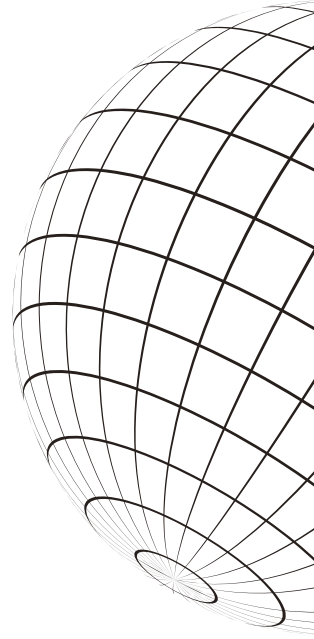
- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

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

Student Coin



DEPLOYER ADDRESS

0x3478Ca7DF93FB9D486373dD2EA103Fc855e96aB7



CLIENT CONTACTS:

Student Coin Team



BLOCKCHAIN

Ethereum Project



WEBSITE:

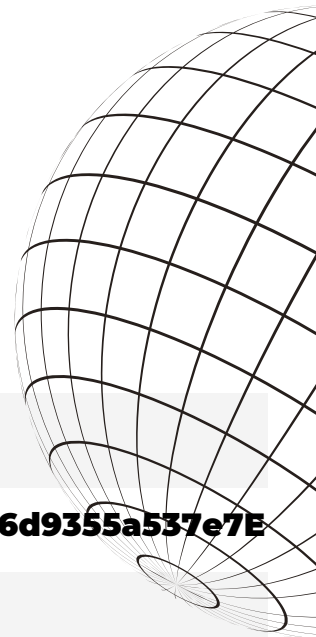
<https://www.studentcoin.org/>



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CONTRACT DETAILS

Token contract details for Mar-27-2021



Contract name	Student Coin
Contract address	0x15B543e986b8c34074DFc9901136d9355a537e7E
Total supply	10,000,000,000 STC
Token ticker	Student Coin (STC)
Decimals	18
Token holders	10,480
Transactions count	49,795
Top 100 holders dominance	95.5844%
Contract deployer address	0x3478Ca7DF93FB9D486373dD2EA103Fc855e96aB7
Contract's current owner address	0x3478Ca7DF93FB9D486373dD2EA103Fc855e96aB7



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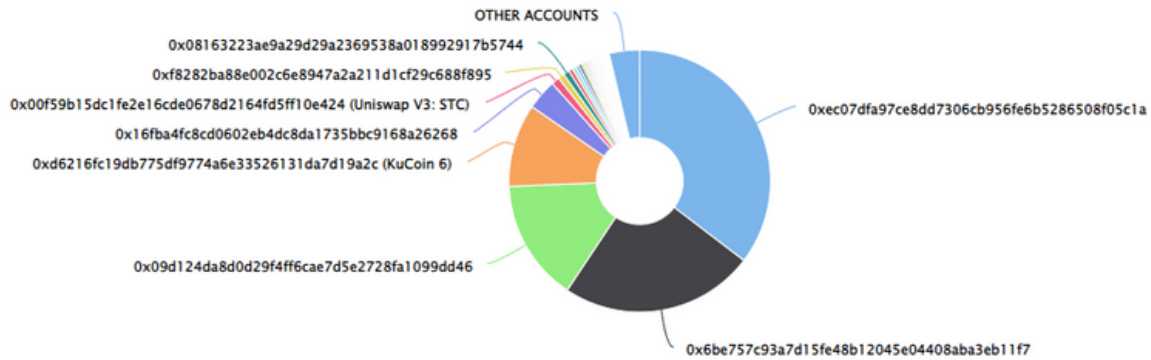
STUDENT COIN DISTRIBUTION

The top 100 holders collectively own 96.23% (9,623,326,276.66 Tokens) of Student Coin

Token Total Supply: 10,000,000,000.00 Token | Total Token Holders: 10,480

Student Coin Top 100 Token Holders

Source: Etherscan.io



(A total of 9,623,326,276.66 tokens held by the top 100 accounts from the total supply of 10,000,000,000.00 token)

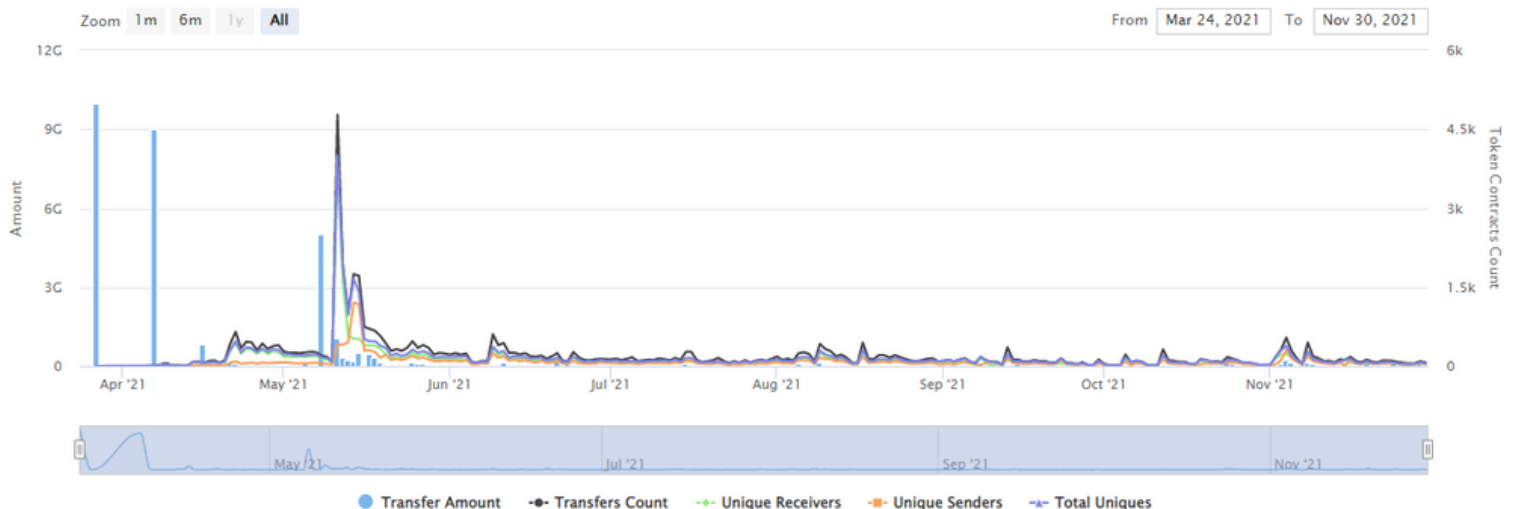
STUDENT COIN CONTRACT INTERACTION DETAILS

Time Series: Token Contract Overview

Sat 27, Mar 2021 - Tue 30, Nov 2021












Token Contract 0x15b543e986b8c34074dfc9901136d9355a537e7e (Student Coin)

Source: Etherscan.io



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TOP 10 TOKEN HOLDERS

Rank	Address	Quantity	Percentage	Value	Analytics
1	0xec07dfa97ce8dd7306cb956fe6b5286508f05c1a	3,535,834,003.317399071317341946	35.3583%	\$17,882,960.72	
2	0x6be757c93a7d15fe48b12045e04408aba3eb11f7	2,400,000,000	24.0000%	\$12,138,325.98	
3	0x09d124da8d0d29f4ff6cae7d5e2728fa1099dd46	1,500,000,000	15.0000%	\$7,586,453.74	
4	KuCoin 6	1,024,012,292	10.2401%	\$5,179,081.25	
5	0x16fba4fc8cd0602eb4dc8da1735bbc9168a26268	375,811,838.725882667902943682	3.7581%	\$1,900,719.42	
6	 Uniswap V3: STC	100,204,573.520750099874784177	1.0020%	\$506,798.24	
7	0xf8282ba88e002c6e8947a2a211d1cf29c688f895	78,899,367.38	0.7890%	\$399,044.27	
8	0x08163223ae9a29d29a2369538a018992917b5744	73,848,538.852057279299727536	0.7385%	\$373,499.02	
9	0xfdbdeb87969f5610d006d1a4ed79308a5778e77e5	52,019,387.998801196609977221	0.5202%	\$263,095.12	
10	0x92cf074557b26a7b67af202fb9161f6fa073eebf	45,591,291.347502958100800352	0.4559%	\$230,584.15	

source:<https://etherscan.io/>



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SECURITY ISSUES

✓ High Severity Issues

No high severity issues found.

⚠ Medium Severity Issues

1.batchTransfer function has a costly loop. For big input arrays, the gas limit can be reached.

✓ Low Severity Issues

No high severity issues found.

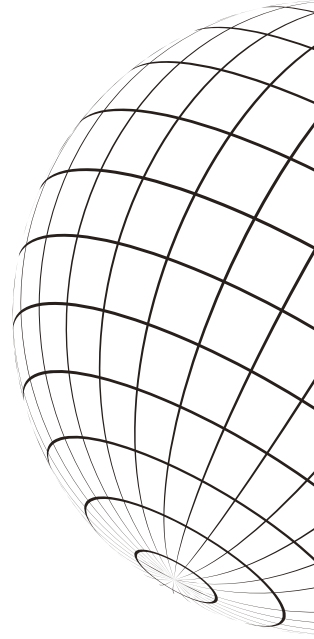
✓ Lowest / Code style / Best Practice Severity Issues

No high severity issues found.



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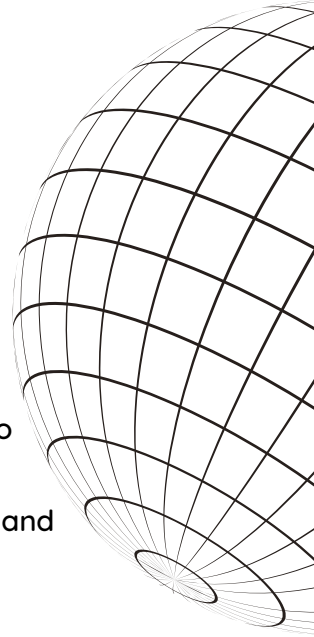
SECURITY ASSESMENT
TOKEN LOGO



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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