

SGi Token – Audit Pre-Report

■ Project Overview

The SGi Token (SmartGolfToken) is an ERC-20 based token deployed on Ethereum Mainnet. It forms the foundation of the SMARTGOLF ecosystem, integrated with DAO governance and NFT-based extensions (nSGi). This pre-report highlights the core contract design, key functions, identified risks, and mitigations already in place.

■ Core Features

Token Standard	ERC-20 (OpenZeppelin-based)
Total Supply	1,000,000,000 SGi
Lock/Vesting	Custom LockInfo struct with cliff + duration vesting
DAO Control	Owner or DAO Controller can execute privileged functions
NFT Bridge	mintFromNFT allows nSGi contract to mint SGi
Reclaim	DAO can reclaim locked tokens (lock-level granularity)

■ Potential Risks

- **Centralized Authority**: Owner/DAO can mint or reclaim locked tokens. Although restricted to locked tokens, this represents a centralization risk. - **Gas Efficiency**: LockInfo array may lead to higher gas costs with large investor sets. - **DAO/Owner Security**: Keys compromise could lead to misuse of privileged functions. - **Event Parameter Order**: The Locked event parameter order differs from function args (minor observation).

■ Mitigations in Place

- **Multi-Sig Treasury**: 72% of reserves secured in Gnosis Safe with 3-of-5 multi-signature approval. This significantly reduces single-key compromise risk. - **DAO Governance**: Critical functions restricted to DAO Controller / Owner roles. - **Safe Custody**: Team and DAO Treasuries established, monitored through Safe (app.safe.global).

■ Conclusion

The SGi Token contract is a secure ERC-20 implementation with custom locking and DAO-controlled features. The only material centralization risk is the reclaim function (limited to locked tokens), which has been mitigated through multi-signature treasury management. This pre-report is intended to assist in engaging with external auditors (CertiK, QuillAudits, etc.) and to reduce cost by demonstrating prior internal review.