

# SmartGolf Token (SGi)

Whitepaper v4.0

## Abstract

SmartGolf Token (SGi) is a groundbreaking application of blockchain technology in the sports industry, redefining golf through a tokenized, data-driven, and decentralized ecosystem. SGi stands out from typical Web3 projects by anchoring its foundation in proven innovations: over 4,000 IoT golf clubs sold globally, patented technologies recognized in the U.S. and Korea, and endorsements from PGA professionals. These achievements bridge real-world successes with Web3's potential, combining biometric motion data, AI coaching, and a robust tokenized economy to transform how golfers engage with their sport and digital assets.

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## Problem Statement

Golf is an elite-driven, location-locked sport with high barriers to entry. Current solutions—screen golf, driving ranges, and e-sports variations—have only marginally improved accessibility. Despite growing interest from younger generations, golf lacks a system that rewards participation, provides decentralized skill assessment, and scales into urban life.



### High cost of lessons

Difficulty in improving skills without expensive professional guidance.



### Barrier for beginners

Challenges in entering the sport due to lack of equipment or technical skills.



### Only consuming contents

Most golfers only consume contents of golf and spend their energy and money.

## Unique Strengths

SmartGolf transcends the concept phase by anchoring its ecosystem over a decade of innovation and development. With patented technologies and a record of success, including the sale of more than 4,000 units and endorsements from PGA professionals, SGi exemplifies a project backed by tangible achievements. Additionally, its partnerships with educational systems demonstrate its readiness for global expansion.

# SmartGolf Platform Overview

## Proven Product Advantages

1. **IoT Golf Clubs:** Equipped with 9-axis motion sensors, these clubs offer real-time, high-accuracy swing data and 3D visualization, validated by thousands of users.
2. **AI Coaching Engine:** Built on over 4,000 categorized swings, the AI delivers data-driven coaching that significantly enhances skill improvement.
3. **Robust Ecosystem:** Centered around SmartGolf Plaza, the solution brings IoT hardware, blockchain, and community participation together into an operational and successful system.



Smart golf club

A club analyze swing data with accurate algorithm.



AI Educational practice app

User-friendly, data-driven AI learning application.



Social networking features

Share feedback and progress within a web3 golf community.

## Blockchain Integration

- SGI tokens, built on the ERC-20 standard, connect real-world golf activities to valuable on-chain assets.
- Unique biometric motion signatures and patented sensor data ensure high-level security and transparency.

## Token Utility

- **SGi Points:** Earned through swing activity and gameplay.
- **SGi Coins:** Tradable ERC-20 tokens used for:
  - Purchasing equipment, coaching, and plaza access
  - Betting and spectating events
  - Governance and DAO voting

## Token Deployment:

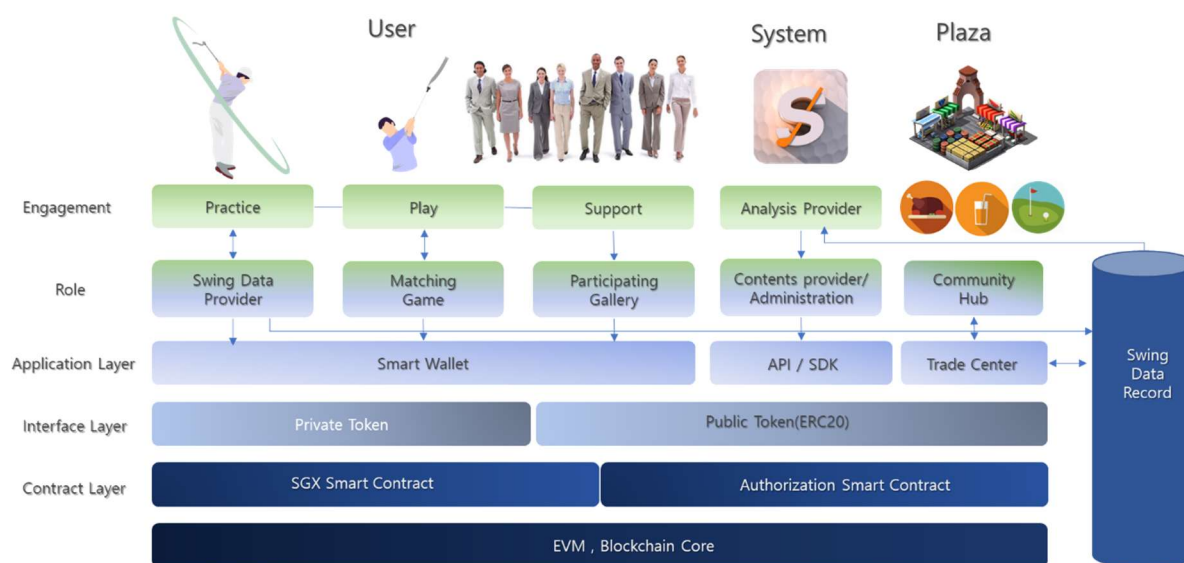
- The SGI ERC-20 token has already been deployed on the Ethereum mainnet with

a total supply of 400,000,000 tokens.

- Contract Address: 0xBe64547924b2Bf16782c903F0400308b50e3c4d4
- The token is accessible through MetaMask and integrated with the SmartGolf App. Smart contract extensions for staking, rewards, and DAO voting are planned for Q3 2025.

## Smart Contracts

SmartGolf leverages blockchain to tokenize golf swings and reward performance, with a robust, modular smart contract system to ensure transparency, automation, and security.



- Swing tokens issued as NFTs
- Contracts manage data integrity, P2P swing exchanges, marketplace logic
- Smart Contract Stack

Layer	Function	Example
<b>Swing NFT Contract</b>	Issues NFTs per validated swing; links metadata from motion sensors	mintSwingNFT()
<b>Reward Contract</b>	Calculates SGI Points and converts to SGI Coins based on on-chain activity	claimRewards()
<b>Marketplace Contract</b>	Enables users to trade swing NFTs or book AI coaching sessions	listSwingForSale()
<b>DAO Governance Contract</b>	Handles proposals, voting, and treasury logic	voteOnProposal()

All contracts follow upgradeable architecture (EIP-1967 proxy pattern), with regular audits and version tracking.

## On-chain KYC by Swing

Each user's swing signature is stored as a unique multi-sensor pattern (15 IMU inputs), enabling biometric-style verification.

- **Biometric Motion Signature:** Each swing generates a unique 15-sensor pattern (IMU), hashed and stored on-chain.
- **User KYC Hash Mapping:** Users' identities are mapped to swing hashes via on-chain KYC integration, ensuring privacy-compliant authentication.

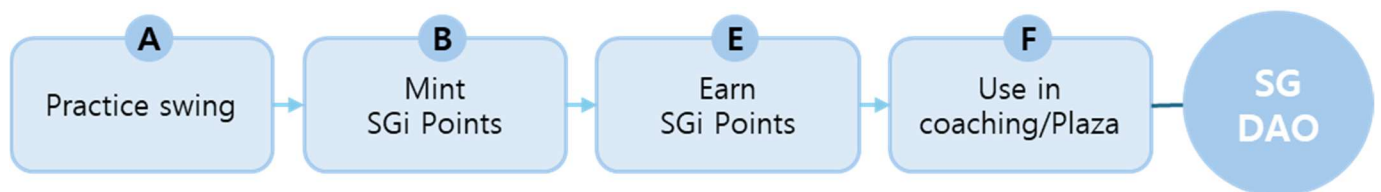
## Reward Flow Model

flowchart LR

A[Practice Swing] --> B[Upload via App]

B --> C{Validated?} -->|Yes| D[Mint NFT]

D --> E[Earn SGI Points] --> F[Convert to SGI Coin] --> G[Use in Ecosystem]



## Security & Standards

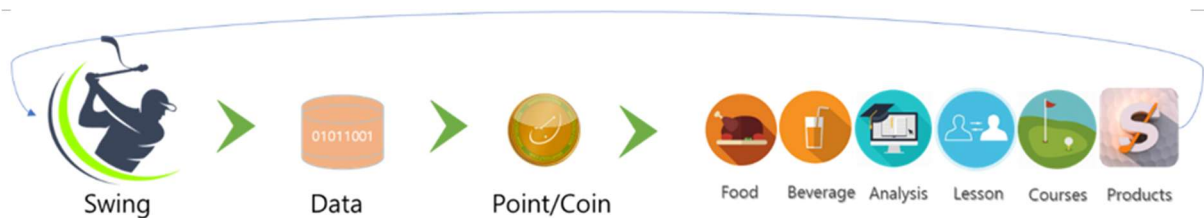
- **Audit Partners:** OpenZeppelin, CertiK (planned)
- **Gas Optimization:** Modular batch minting and reward claims
- **KYC & Privacy:** On-chain ID mapping with zk-hash (planned)

## Why It Matters

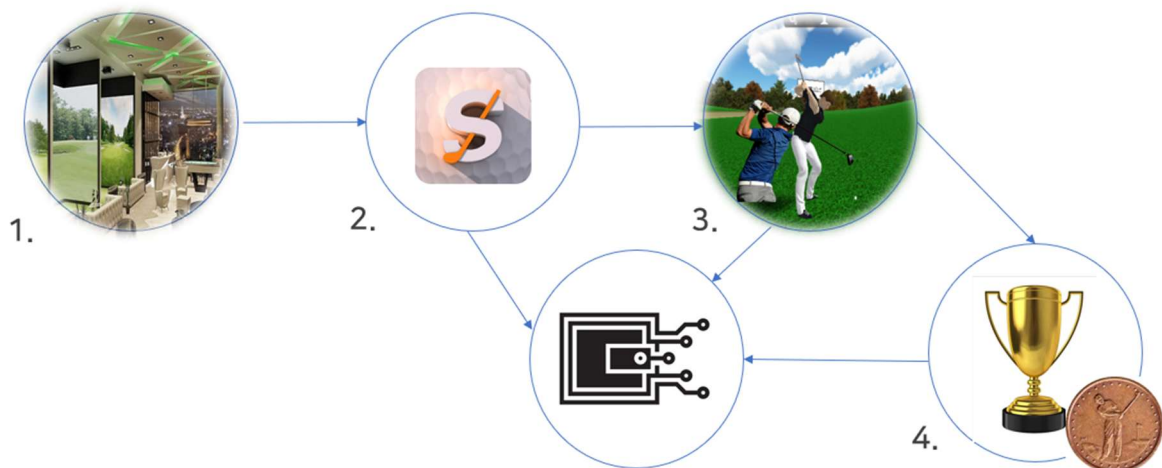
- Real-time motion data → on-chain value via NFT + ERC20
  - Fixed supply + burn model = deflationary incentive loop
  - Full transparency: DAO-voted governance + open metrics
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## Use Cases

**Use Case I – Swing Tokenization** Users practicing at home upload swing data, tokenize it, and share or monetize via SmartGolf DB.

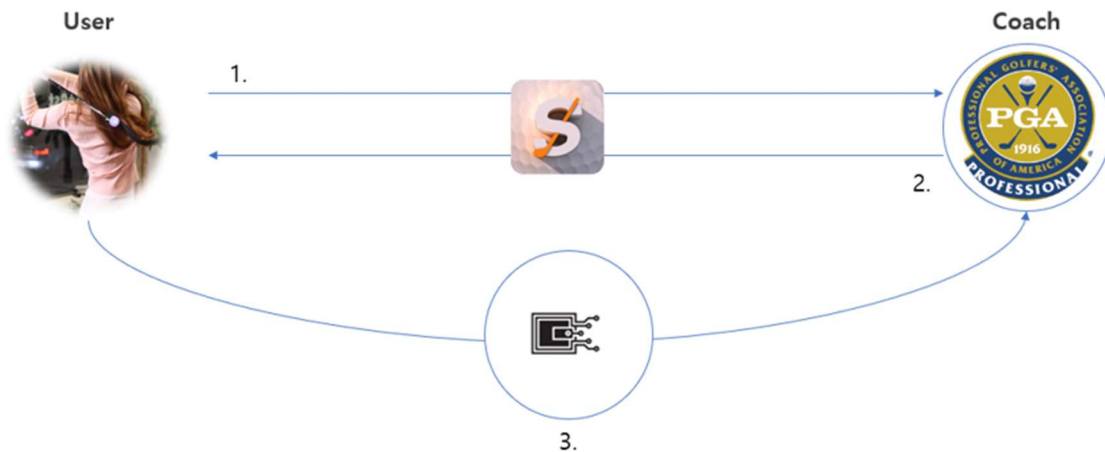


**Use Case II – SmartGolf Plaza Economy** Users compete or bet in SmartGolf Plaza; winnings are paid in SGI tokens and recorded on-chain.



1. SmartGolf Plaza (Could be done at home with SmartGolf app + club)
2. Player and Galley log in to the SmartGolf System.
3. Engage (rounding on course or betting as gallery) in the virtual multi-round on SG course.
4. Wins the round and received prize (tokens) as a reward.

**Use Case III – Additional Coaching** Users connect to certified coaches via the platform; coaching fees and swing feedback are processed through smart contracts and paid in SGI.



1. SmartGolf system – The user swings and the swing data is transferred to a matched coach.
2. The swing data will be analyzed, visualized on the SmartGolf App for a detailed review from the coach followed by specific instructions on methods to improve the user's swing.
3. The overall tuition fee is paid through a transaction via the SmartGolf digital wallet

## Market Opportunity

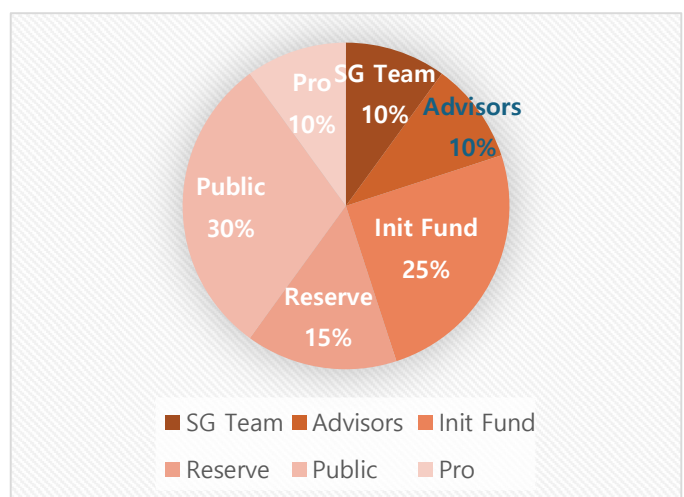
- 65M global golfers
- \$15.8B golf equipment market (US)
- 500+ simulated golf courses digitized with LiDAR
- Active partnerships with 5 Houston schools, PGA pros

## Tokenomics

- Total Supply: 400,000,000 SGI
- Conversion: 1,000 SGI Points = 1 SGI | 1 SGI = 1 USDT
- Early Bird Discount: Up to 25%
- Lockup period: 6 Month

## Distribution:

- 30% Public Sale
- 15% Private Investors
- 10% PGA/Associations
- 15% Business Reserve
- 10% Founders/Team
- 10% Advisors
- 10% Early Investors



### Fund Allocation:

- R&D and mass production
- Ecosystem development
- Global marketing & partnerships



### Token Utility Model

SGi is structured as a utility token, directly tied to real-world golf training, digital swing analytics, and NFT-based engagement. Unlike security tokens, SGi offers verifiable usage rights and product-linked value.

### Utility Components:

- Access to AI swing coaching modules
- Minting and trading swing-based NFTs
- Entry into SmartGolf Plaza events and competitions
- Participation in DAO governance and platform voting
- Physical rewards (AIX Club) via token holding thresholds

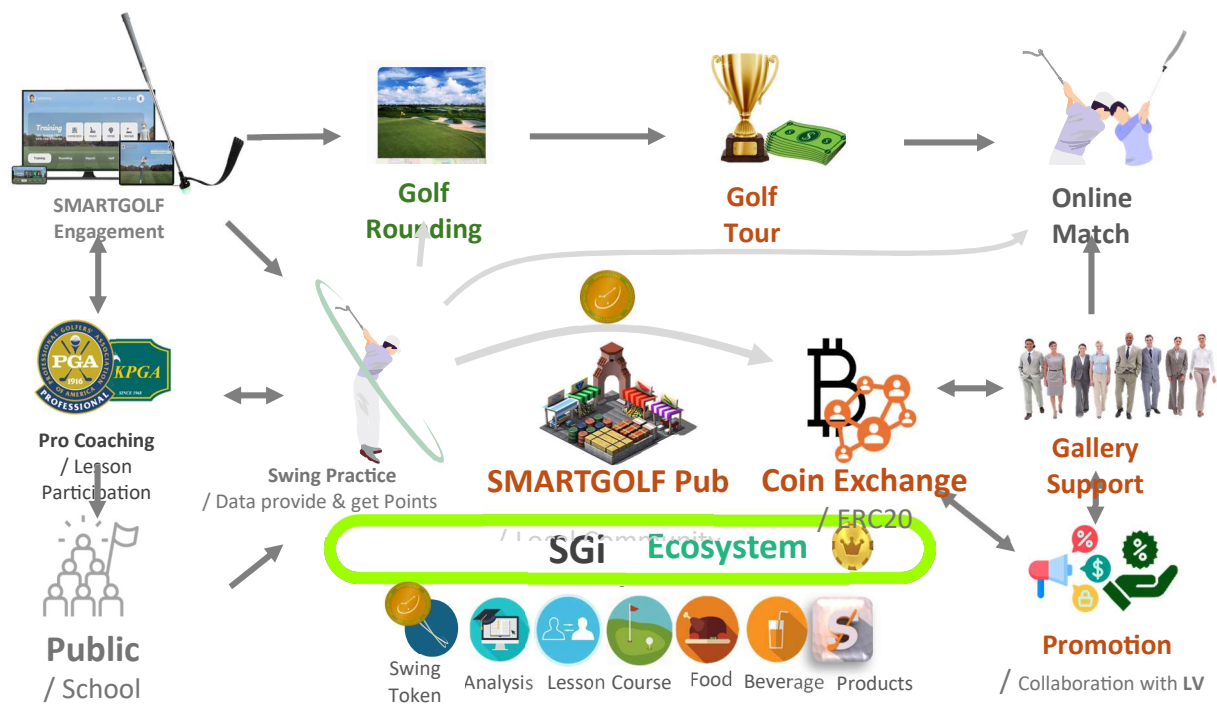
### Reward Integration Model:

Tier	SGi Holding Threshold	Reward	Description
Bronze	500 SGi	1 AIX Club	Entry-level real swing experience with token utility
Silver	1,000 SGi	1 AIX Club + Swing NFT rights	Active user tier with digital asset engagement
Gold	3,000 SGi	All above + DAO voting priority + Plaza event pass	Ecosystem contributor + governance enabler



SGi holders can unlock physical utility (clubs), digital features (NFTs), and community governance. This model supports both mass adoption and incentivized participation while reinforcing the non-securitized, real-utility nature of the token.

## Ecosystem Components



- **SmartGolf Club:** Sensor-driven IoT golf hardware
- **SmartGolf App:** Swing analysis, AI feedback, digital wallet
- **SmartGolf Plaza:** Real-world venue for token-based gaming
- **Blockchain Layer:** NFT issuance, DAO governance, token economy

## Competitive Advantage

- **Patented Technology:** Protected by U.S. and Korean patents, the IoT golf club technology is a proven game changer.
- **Commercial Success:** Over 4,000 units sold through crowdfunding campaigns, demonstrating market traction. 4K units sold via crowdfunding
- **Real-World Impact:** Strong partnerships with education systems and PGA professionals solidify SGI's relevance and scalability

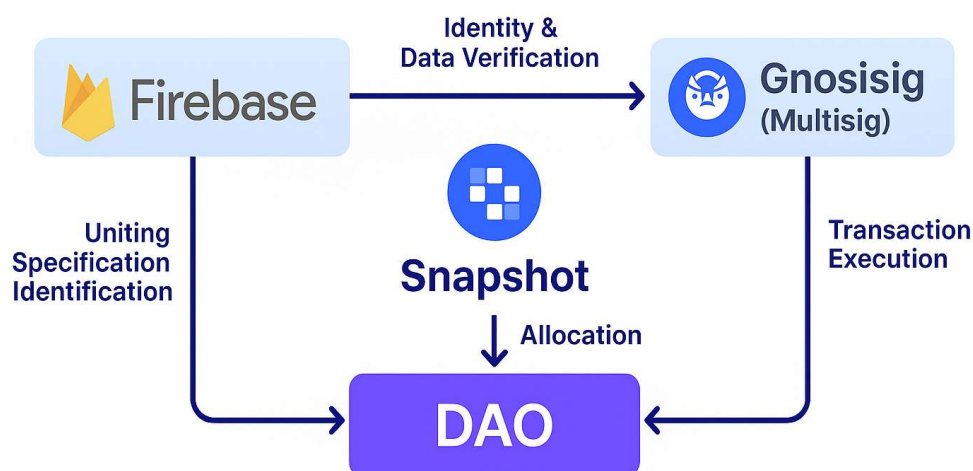


## Roadmap Highlights

- **2015–2023:** R&D, crowdfunding, hardware launch, PGA endorsement
- **2024:** School partnerships, major exhibitions partner (VivaTech, ExpandNorthStar)
- **2025 Q2–Q3:** Token launch, Binance Launch Pool listing, ecosystem expansion

## Value Governance & DAO Structure

- SGI holders can vote on:
  - Platform upgrades
  - Tokenomics adjustments
  - Coach onboarding protocols
- Treasury managed by multi-signature DAO board with transparency reports every quarter
- Community proposals open via Snapshot-style governance portal



## Risk Factors

Standard Web3 risks apply:

- Blockchain volatility
- Regulatory uncertainty
- Security vulnerabilities (wallet, smart contract exploits)
- Market adoption dependency

## Conclusion

SmartGolf Token (SGi) represents a new frontier in the sports industry by combining proven, patented technologies with blockchain innovation. Unlike traditional Web3 projects, SGi leverages real-world achievements, including commercialized IoT golf clubs,

endorsements from PGA professionals, and strong educational collaborations, to build a robust and scalable ecosystem. By transforming swing data into valuable, on-chain assets and providing a decentralized yet proven infrastructure, SGI is set to redefine the golf experience for players worldwide. This concept represents a significant advancement in the integration of sports, technology, and community.

For details <https://smartgolf.io>