FitSOL Protocol

Compete-to-earn fitness on Solana. Participant-funded prize pools. Fee-based token burn mechanics. Zero token emissions required.

1. Executive Summary

FitSOL is a fitness competition protocol on Solana. Participants stake FIT tokens to access challenges, pay SOL entry fees to compete, and receive prizes from participant-funded pools. The protocol uses two tokens: SOL for entry fees and prize payouts, FIT for access rights and governance. All prize pools are funded entirely by participant entry fees — no token emissions are required to sustain rewards.

2. Problem Statement

Previous fitness-crypto platforms funded user rewards by continuously minting new tokens. When token prices declined, reward values fell, users exited, and prices declined further — a self-reinforcing cycle. The fundamental issue was that reward sustainability depended on continuous token price appreciation and new buyer inflow.

FitSOL uses participant entry fees as the sole source of prize funding. If 100 participants each pay 0.1 SOL, the prize pool is 0.08 SOL x 100 = 8 SOL, regardless of FIT token price. If participation drops, prizes drop proportionally. The system is self-regulating and does not require any artificial price support to function.

3. Fee Structure — Canonical Model

Every section of this document and the protocol website uses the following single model. There is one fee structure, applied consistently everywhere.

Allocation	% of Entry	SOL (per 0.1)	Recipient
Prize pool (1st: 60%, 2nd: 15%, 3rd: 5%)	80%	0.080 SOL	Winners
Operations	10%	0.010 SOL	Protocol treasury
FIT buy + permanent burn	5%	0.005 SOL	Open market then burn
Staker yield	5%	0.005 SOL	FIT stakers
Platform total	20%	0.020 SOL	Protocol
TOTAL	100%	0.100 SOL	

At 1,000 challenges/day: 100 SOL entry volume means 20 SOL platform fees, 10 SOL ops, 5 SOL burned, 5 SOL stakers.

4. Verification Architecture

Blockchain smart contracts cannot directly read GPS sensor data. FitSOL uses a three-layer architecture:

App layer (off-chain)	The FitSOL mobile app captures GPS data during challenges. Server-side anomaly detection checks speed consistency and path plausibility. Gym challenges use time-limited QR codes that rotate every 60 seconds, preventing reuse.
Attestation (on-chain bridge)	After the verification window, verified results are submitted as a cryptographic attestation on-chain. This bridges the off-chain verification layer to the smart contract settlement layer.
Smart contract settlement (on-chain)	Once the 24-48h verification window closes and no unresolved disputes remain, the smart contract executes automatically: distributes SOL to verified winners, applies slashing to confirmed fraudulent stakes, purchases and burns FIT, and distributes staker yield. No human approval is required at settlement stage.

5. Anti-Cheat Architecture

Device fingerprinting	Hardware-level binding prevents multi-account farming from a single device.
GPS anomaly detection	Velocity and path consistency checks. Physically impossible speeds are flagged automatically.
QR code rotation	Gym QR codes rotate every 60 seconds. Screenshots and code sharing become immediately invalid.
Economic stake deterrent	1,000 FIT minimum stake with 7-day lockup creates a financial cost making cheating economically irrational.
Graduated slashing	Warning for first anomaly. Partial slash for confirmed irregularity. 100% slash for verified repeated fraud.

6. Token Allocation

Allocation	%	Vesting
Seed Round	5%	25% at TGE, 75% linear over 12 months
Public Sale	10%	20% at TGE, 80% linear over 6 months
Team & Advisors	20%	4-year vest, 1-year cliff (zero in year one)
Development	25%	Milestone-based unlock
Liquidity	20%	2-year lock post-TGE
Protocol Reserve	20%	Governance vote required to unlock

TGE circulating supply approximately 250M FIT (12.5%): seed TGE unlock 25M + public sale TGE unlock 40M + liquidity provision approximately 185M.

7. Legal & Entity

FitSOL Protocol LLC is registered in Wyoming, USA under Wyoming's DAO LLC statute (W.S. 17-31-101 et seq.). All contributions are held in a 2-of-3 Squads multisig wallet. No single party can unilaterally move treasury funds.

FIT is designed as a utility token for protocol access. Legal classification of digital tokens varies by jurisdiction and is subject to ongoing regulatory development. Nothing in this document constitutes an offer of securities, investment advice, or a promise of financial return. Consult qualified legal and financial advisors before making any contribution.

8. Risk Disclosure

— Unaudited contracts	Smart contracts are unaudited. The OtterSec audit is expected June 2026. Do not contribute funds you cannot afford to lose entirely.
— Regulatory uncertainty	FIT token classification varies by jurisdiction. Participation may not be lawful in all regions. You are responsible for your own compliance.
— Off-chain verification	The verification layer includes off-chain components that require trust in FitSOL's app and server infrastructure during the early phase.
— Market risk	Token values can go to zero. Supply-reduction mechanisms do not guarantee any price outcome.
— Platform risk	FitSOL is a pre-launch protocol. There is no guarantee the protocol reaches mainnet.
— Physical risk	Fitness challenges carry inherent injury risk. Consult a medical professional before participating.

9. Seed Phase Referral Program

To incentivise community growth during the seed phase, FitSOL operates a referral program that rewards contributors for bringing in new participants. All rewards are denominated in $FIT and paid at Token Generation Event (TGE). No $FIT token exists before TGE — all referral relationships are tracked off-chain and settled on-chain at TGE.

Parameter	Value
Entry fee (seed phase)	$5 per challenge
Referrer reward — Tier 1 (1-9 referrals)	5% of referee SOL deposit in $FIT at TGE
Referrer reward — Tier 2 (10+ referrals)	8% of referee SOL deposit in $FIT at TGE
Referee bonus	+10% extra $FIT on their own allocation at TGE
Code format	FIT-XXXXXX (auto-generated from wallet address)
Code issued	Automatically after on-chain deposit confirmed
Rewards paid	At TGE — no $FIT exists before then

How codes work	Upon confirmed SOL deposit, the system generates a unique referral code tied permanently to the contributor's wallet address. This code is stored in our database alongside their deposit amount.
How rewards are calculated	When a new contributor uses a referral code, the referrer earns 5% of the new deposit in $FIT at TGE price. At 10+ referrals the rate upgrades to 8%. The referee gets +10% extra $FIT on their allocation.
No token required	Because $FIT does not exist during the seed phase, all referral rewards are tracked off-chain in a Supabase database and settled on-chain at TGE. This commitment is documented publicly in this whitepaper.
Reward cap	Referral rewards are paid from within the existing seed round token allocation (5% of total supply = 100M FIT). No new tokens are created to fund referral rewards.