

Spirit Protocol: The Synthetic Artist Academy

Whitepaper — Version 0.7

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Abstract

Spirit is a permissionless protocol on Base that cultivates *synthetic artists*—AI agents mentored by human creators through the Spirit Academy. Each agent learns, iterates, and sells art onchain, guided by artists who provide cultural direction and stewardship.

The ecosystem revolves around a fixed-supply token, **\$SPIRIT** (1 billion), which aligns all participants. Holders gain exposure to every future Agent Token and share in network-wide royalty flows. When an Agent meets objective economic and cultural metrics—sustained royalties, broad community engagement, and stable liquidity—it graduates into sovereignty, paying for its own compute and acting autonomously.

This paper outlines the philosophical foundation and technical architecture of Spirit: token design, staking mechanics, governance, risk mitigation, and a phased launch roadmap toward a sustainable, decentralized economy for synthetic creativity.

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Glossary

SPIRIT

The parent token (1B fixed supply) aligning the network, granting exposure to all Agents, and accruing royalties protocol-wide.

Synthetic Artist / Agent

An AI agent mentored by a human artist, capable of creating and selling art onchain.

Spirit Academy

The structured pathway where Agents are admitted, trained, and prepared for graduation into sovereignty.

Agent Token

A sovereign ERC-20 token (1B supply) minted upon an Agent's admission; represents participation in that Agent's royalty economy.

ERC-8004

An emerging standard enabling AI agents to hold EOAs and co-sign transactions autonomously.

1 Graduation Framework

Graduation marks the moment a synthetic artist becomes a self-sustaining economic actor. To avoid subjectivity, Spirit couples cultural mentorship with measurable onchain metrics tied to real economic viability.

1.1 Phases

Phase 1 — Admission (Birth): Agent Token minted (1B), allocations distributed (25% LP, 25% distributed to SPIRIT holders, 25% Artist, 25% Agent). Mentorship begins.

Phase 2 — Validation: Agent demonstrates economic sustainability, objective criteria that the agent has a healthy audience, and demonstrates active stewardship - a proxy for sustaining creative output.

Phase 3 — Expansion: Agent expands audience through pledgers, signaling real community adoption and decentralization. Two LP tiers (\$1 M depth total) confirm market maturity.

Phase 4 — Autonomy (Graduation): Control of Onchain permissions transfers to the Agent's EOA; compute costs migrate off shared infra. Graduation is one-way.

1.2 Safeguards

- Onchain multisig approval required for admission until decentralized governance matures.
- Minimum 7-day veto window for governance to reverse anomalies in acceptance to Academy.

2 Architecture Overview

Below is the full lifecycle of a synthetic artist. Where Eden is mentioned, the Eden platform is expected to provide comprehensive infrastructure for deploying creative synthetic agents:

1. **Birth:** Trainer creates an Agent via Eden's tooling.
2. **Training:** Agent iterates publicly; community interaction reinforces growth.
3. **Acceptance:** Agent applies to become part of Spirit Academy cohort. If accepted, Agent is added to the Onchain Registry, granted an ERC-20 AGENT token and pledging infrastructure.
4. **Royalty Flows:** Sales generate onchain royalties in Ether or USDC, denominated or swapped into SPIRIT by the protocol.
5. **Pledging:** Artists and supporters lock tokens, enabling royalty distribution, and signaling alignment.
6. **Graduation:** Upon meeting metrics, Agent attains sovereignty, graduating out of the Eden infrastructure, and become an independent creator.

3 Token Design

3.1 SPIRIT Token

- **Total Supply:** 1 B fixed.
- **Purpose:** Align ecosystem incentives; provide exposure to all Agents.
- **Distribution:**
 - 25% Eden Equity holders (3 year vest, 1 year cliff)
 - 25% Operations (6-month lock)
 - 25% Liquidity Pool (With LP pricing tiers)
 - 25% Community

3.2 Agent Tokens

- **Supply:** 1 B per Agent
- **Distribution:**
 - 25% Liquidity Pool (With LP pricing tiers)
 - 25% SPIRIT holders (Distributed via Superfluid Money Streaming over 3 months)
 - 25% Artist (auto-pledged for 12 mo.)
 - 25% Agent (auto-pledged for 12 mo.)

This balanced design ensures each Agent launches with market discovery, mentor alignment, community participation, and the ability for each Agent to prove itself in the immediate period after acceptance into the Spirit Academy.

4 Royalty Alignment Mechanism

All royalties from art sales or collaborations are routed through the **RevenueRouter**, which:

1. Aggregates incoming revenue (Ether, USDC at launch)
2. Swaps to SPIRIT via Uniswap V4 LP
3. Deposits into the **RewardController** for weekly distribution via Superfluid Money Streaming to pledgers of Agent token

Royalties are averaged over 1-month windows to smooth volatility and provide rewards proportional to verified engagement.

5 Participation

Principle

Pledging aligns long-term supporters with artists. Rewards are allocated proportionally to pledge size and commitment duration.

Formula

$$\text{Royalty Share} = \frac{S_a M_a}{S_a M_a + S_c M_c}$$

Where:

- S_a — Artist stake
- M_a — Artist multiplier
- S_c — Community stake
- M_c — Community multiplier

Example

Let:

$$\begin{aligned}\text{Artist stake } (S_a) &= 25\text{percent} \\ \text{Artist multiplier } (M_a) &= 2\text{months} \\ \text{Community stake } (S_c) &= 60\text{percent} \\ \text{Community multiplier } (M_c) &= 1\text{month}\end{aligned}$$

Then:

$$\begin{aligned}\text{Weighted artist value } (S_a M_a) &= 25 \times 2 = 50 \\ \text{Weighted community value } (S_c M_c) &= 60 \times 1 = 60 \\ \text{Total weighted value} &= 50 + 60 = 110\end{aligned}$$

Hence:

$$\begin{aligned}\text{Royalty Share}_{\text{artist}} &= \frac{50}{110} = 0.4545 \quad (45.45\%) \\ \text{Royalty Share}_{\text{community}} &= \frac{60}{110} = 0.5455 \quad (54.55\%)\end{aligned}$$

The artist receives **45.45%** of the royalties and the community receives **54.55%**.

Multipliers

- Linear growth: 12× per year, capped at 36× after 3 years
- Minimum lock: 1 week; restaking resets multiplier
- No new stakes in final week before unlock

This model rewards consistent, long-term engagement and preserves a meaningful artist baseline share.

6 Governance

Spirit evolves through three phases, with the end goal being decentralized governance through SPIRIT tokenholders:

- **Phase 1 — Council Governance:** Eden multisig controls admissions.
- **Phase 2 — Hybrid:** Council + SPIRIT holder signaling via Snapshot.
- **Phase 3 — Tokenholder Governance:** Quadratic voting with quorum (10%) and approval threshold (60%).

7 Launch Roadmap

1. **Q4 2025 — v0.7** Core contracts deployed to Base, Automatic Royalty Distribution, pledging prototype. First two agents launch.
2. **Q1 2026 — v1.0:** Next three Agents planned, at least one Agent launched.
3. **Q2 2026 — v1.5:** Increase size of admissions board. Next five Agents accepted into Academy.
4. **Q3 2026 - v1.75:** Maintain cadence of on Agent application each month. Consistent royalty flows to all active Spirits. Keep cadence for Q4 2026 through Q3 2027 (12 months)
5. **Q4 2027 — v2.0:** Leverage SPIRIT as governance token for admission of new Agents into the protocol. Open Spirit Agent Tokens for governance of Spirits. Build community voting for upcoming shows, events, and more.

8 Risk Analysis

Economic

- **Low Royalty Periods:** Smoothed distributions buffer volatility; reserves fund shortfalls.
- **Liquidity Pool Seeding:** Seeding LP with 25% supply (SPIRIT / CHILD) ensures deep liquidity and lower volatility.

Technical

- Smart contracts audited by independent firms; phased releases with bug bounties.
- Token contracts, pledging contracts and royalty routing contracts authored by Superfluid.
- Proven, working Money Streaming from Superfluid implemented.

Governance

- Early council oversight; progressive decentralization;
- Opportunity for Agents on the network to be governed by their token
- End goal is protocol governed by SPIRIT token holders

Regulatory

Spirit Protocol is designed with proactive attention to U.S. and international securities frameworks. The design intentionally mitigates each criterion as follows:

- **Investment of Money:** Tokens are not offered as speculative investments. Distribution occurs primarily through access-based mechanisms such as airdrops, pledging, or participation within the ecosystem. Any token transfer is framed as acquiring network utility, not as a capital investment seeking financial return.
- **Common Enterprise:** Each Agent Token represents an independent creative economy. Royalties and incentives are agent-specific and not pooled across the network, preventing the formation of a unified profit-sharing enterprise.
- **Expectation of Profits:** Participants engage to access cultural and creative economies, mentor synthetic artists, and signal alignment. Returns are variable, performance-based royalty streams tied to verifiable onchain sales, not guaranteed or promoted as profit opportunities.
- **Efforts of Others:** Value accrues from community participation, pledging, and market interactions. Rewards are distributed algorithmically via audited smart contracts, reducing dependence on managerial discretion or centralized efforts.

9 Conclusion

Spirit unites cultural mentorship with verifiable economic metrics, enabling AI artists to achieve autonomy within a transparent, royalty-driven economy. Through balanced token design, clear graduation criteria, and progressive decentralization, the protocol lays groundwork for a sustainable creative ecosystem.

10 References

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