

WHITEPAPER — Fib&Phi: The Mathematical Harmony Collection

1. Introduction

Fib&Phi is a generative NFT collection inspired by two of the most fascinating concepts in mathematics:

the **Fibonacci sequence** and the **Golden Ratio (ϕ)**.

Each piece represents the intersection of **mathematical perfection and artistic beauty**, inviting collectors to explore the balance that governs nature, art, and the universe itself.

2. Concept

Every NFT in *Fib&Phi* is a visual expression of mathematical growth.

Its design follows proportions derived from the Fibonacci sequence, where each number emerges from the sum of the previous two, symbolizing organic evolution and infinite connection.

The collection celebrates how mathematics shapes aesthetics—from the spiral of a nautilus shell to the geometry of galaxies, from architectural proportions to the very structure of living beings.

3. Collection Overview

- **Total Supply:** 6,765 NFTs (a Fibonacci number)
- **Image Resolution:** 987x987 px (a Fibonacci number)
- **Generative Algorithm:** Python-based system ensuring unique combinations and no duplicates
- **Launch Date:** November 23
- **Theme:** Mathematical and symbolic art inspired by Fibonacci and ϕ

Each NFT is a **unique combination of 8 attributes**, and every attribute and rarity quantity is based on Fibonacci numbers, creating an internal mathematical harmony.

4. Attributes & Fibonacci Logic

Each NFT includes the following attributes:

1. **Fibonacci Number** — the numerical base that anchors each token
2. **Number Energy** — visual and symbolic glow (auras, radiance, spirals, waves...)
3. **Main Figure** — iconic visual representation (Golden Spiral, Phi, Nautilus Shell, etc.)
4. **Symbolic Element** — secondary figure adding depth (Pentagon, Crystal, Code...)

5. **Mathematical Structure** — geometric or fractal pattern (Penrose, Koch, Voronoi...)
6. **Element Color** — tones derived from Fibonacci RGB values
7. **Background** — cosmic and golden scenes reflecting the infinite
8. **Distribution** — the spatial arrangement of all visual elements

Each attribute has a **Fibonacci number of rarities**, and each rarity appears a **Fibonacci number of times** (e.g., 1, 2, 3, 5, 8, 13, 21...).

This recursive logic ensures a coherent mathematical system throughout the entire project.

5. Technical & Generative Process

The collection was generated using **Python and Pillow**, combining independent transparent PNG layers:

- backgrounds
- main figures
- symbolic elements
- geometric motifs
- color filters
- glow/energy effects

The composition follows one of five predefined **spatial distributions**, also inspired by Fibonacci geometry (Golden Spiral, Harmonic Square, etc.).

No duplicates are allowed — each combination is mathematically verified as unique.

6. Philosophy

Fib&Phi is not just a digital art project — it's a tribute to the mathematical language that governs beauty.

Each NFT is a meditation on proportion, symmetry, and resonance — an algorithmic poem that reflects order within apparent chaos.

It reminds us that every creation, from galaxies to DNA, follows a pattern — the golden harmony that defines existence.

7. Launch & Distribution

- **Platform:** Thirdweb + IPFS (Lighthouse.storage)
- **Public Launch:** November 23
- **Edition:** Limited and final — 6,765 NFTs
- **Royalties:** 5%

- **Networks:** Base / Polygon
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8. Roadmap

Phase 1: Artwork generation and metadata creation (complete)

Phase 2: Smart contract deployment and storage verification

Phase 3: Communication and social media launch

Phase 4: Minting event — November 23

Phase 5: Expansion — possible derivative collections or mathematical utilities

9. Closing Statement

Fib&Phi is where numbers become light, and formulas become art.

A mathematical journey expressed through 6,765 digital harmonies — each one unique, balanced, and eternally golden.