

Signet 01

A ring that signs.

Jim Hannon-Tan, 2026

925 sterling silver, resonant planar antenna, secure cryptographic element
Foundation Edition · 10 numbered pieces worldwide

The premise

For centuries, a seal gave authority a recognisable physical form. A document could be prepared by another hand and issued under the mark of the person who authorised it.

Today, software increasingly helps us write, decide and act. As digital communication becomes easier to generate, the choice to personally sign a message takes on a new significance.

Signet 01 gives that choice a physical form. Worn on the hand, it holds a private signing key within a body of sterling silver. A deliberate gesture brings the instrument to a compatible phone and creates a cryptographic signature that others can verify.

The act is simple: review what you are putting your name to, then touch the ring to sign it.

Your word, sealed.

The object

The twelve-turn square spiral is the face of Signet 01. Its geometry gives the ring its identity and serves as its working antenna.

The body is investment-cast in 925 sterling silver and finished by hand. The electronic assembly is enclosed within it. Brought close to a compatible phone, the antenna receives energy through near-field communication, powering the signing operation.

The ring requires no battery or charging. Its working structure is expressed in the silver itself: the mark you wear is the antenna you use.

The movement

Signet 01 is being developed around a serviceable movement, allowing the electronic assembly to be renewed while retaining the silver body and edition number.

The intended studio service includes replacement of the electronics and refinishing of the silver. Replacement introduces a new signing key; the planned service record will connect each authorised key transition to the original numbered piece.

The first application · Seal a message

The application being developed for the Foundation Edition brings the act of sealing to digital correspondence. It gives the holder a simple way to put their name to a personal letter, a public statement or a dedication accompanying their work.

1 Write and review

Compose a message or attach a file, with or without AI assistance, and review the exact content you intend to sign.

2 Seal

Touch Signet 01 to a compatible phone. The ring creates a cryptographic signature linked to the message.

3 Share

Send the verification link through email, private messaging or a public post. The recipient opens it in a browser to read the message and check its signature, without a ring, wallet or dedicated app.

The seal gives this exchange a recognisable meaning: “I put my name to this.”

Signature and verification

The application prepares the message as EIP-712 structured data and computes its cryptographic digest. The ARX HaLo secure element signs that digest using ECDSA over the secp256k1 curve.

The private key is generated within the chip and designed to remain non-extractable. Verification checks the signature against the signed data and public key. Changes to the signed content are detectable during verification.

Beyond correspondence

The same signing capability can support a wider field of authority as other systems integrate it: approving a blockchain transaction, contributing to a multi-signature account, or authorising a defined instruction for an AI agent.

An instruction might specify what an agent may do, for whom and within which limits. The receiving system verifies the signature and enforces those conditions. These applications require further integration.

Technical specifications

Antenna	Integrated 12-turn planar square spiral · 13.56 MHz
Secure element	ARX HaLo · passive NFC
Signing algorithm	ECDSA / secp256k1
Structured data	EIP-712

Development status: the message application, verification interface, Register and studio service procedures are in development.

Provenance & The Register

The Register is being developed to connect each numbered piece with its issuance, service history and authorised changes of signing key.

The integration architecture uses LUKSO Universal Profiles, with LSP0 / ERC725 accounts and LSP6 permission management. The ring's key can be assigned defined permissions, allowing its authority within the account to be changed or revoked while preserving the profile.

Precursor · Near Field Circuit

Signet 01 grew from Near Field Circuit, Genesis Edition (2025): ten objects CNC-machined from solid brass, copper-plated and assembled by hand.

Each carried an ARX HaLo chip linked to an LSP8 digital asset on LUKSO, connecting the physical object with a record of interaction and digital ownership. All ten pieces were acquired by private collectors internationally.

nearfieldcircuit.com

Development & support

Near Field Circuit received support from the LUKSO Grants Program for work adapting ARX libraries to LUKSO standards and connecting HaLo chips with LSP8 digital assets.

Signet 01 builds on that foundation and has received ANFF-C Gate 1 funding for development and commercialisation.

Jim Hannon-Tan

Founder and industrial designer whose work spans everyday objects, medical technology, and digital instruments. His studio practice incorporates extensive international experience across Milan, Amsterdam, and London, and is currently based in Adelaide, Australia.

Collaborators

Blockchain development	Aureliano Alarcón Smith
Mechanical engineering	Varghese Liju
Electronic engineering	Aaron Mohtar
RF and antenna consultancy	Dr Shengjian Chen, Flinders University
Casting	Morris & Watson
Jewellery fabrication & finishing	Shannon Cornish
Vitreous enamel R&D	JamFactory, Adelaide

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Foundation Edition · Allocations

The Foundation Edition comprises ten individually numbered pieces worldwide. Allocation and sizing enquiries are handled personally by Jim Hannon-Tan.

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