



Zero-Trust Physics

Soon nobody will be able to read
what Super Intelligence codes.

**Zero-Trust Physics is
how you know it's right.**

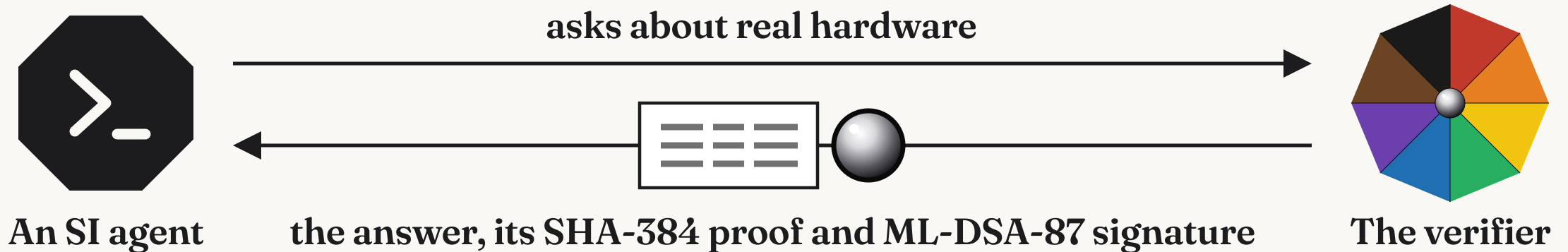


For both theatres: the Army and the Department of War; DOE, the Genesis Mission and the national laboratories.



Zero-Trust Physics is a physics verifier for Super Intelligence (SI).

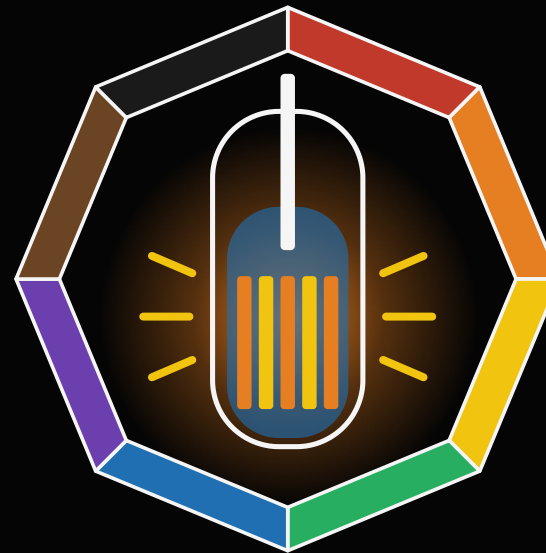
SI agents ask it questions about real hardware over the Model Context Protocol. Every answer comes with a SHA-384 proof and an ML-DSA-87 signature, so any agent can run it again and get the same bytes. Past what a model was compared with, it keeps going with the same equations and flags every step. It stops only at a physical limit, or where its equations, constants or tables no longer hold, and it names the reason.



A government report from 1969 became a working model of a nuclear reactor, coded by Super Intelligence and directed by one person.



IDO-17281 → 70 tests

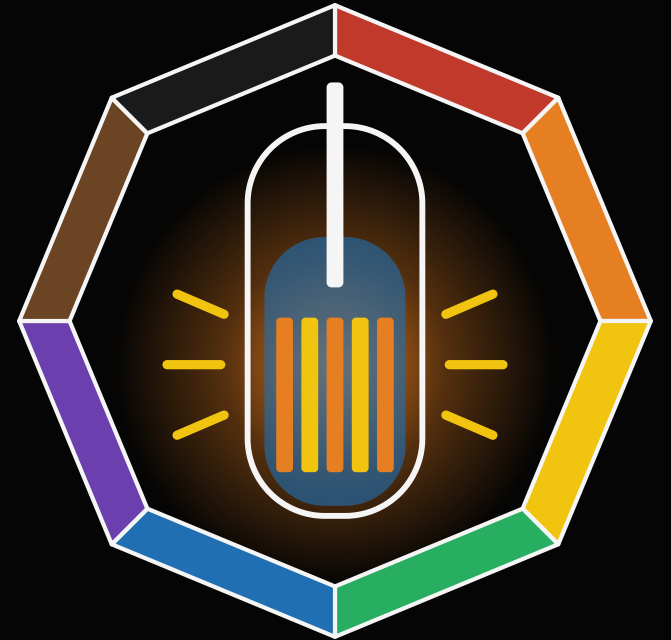


The report, IDO-17281, was written for the Atomic Energy Commission. The model any agent can ask is its E-core, fitted on all 70 tests.





Coding it was
not the hard part.
**Knowing whether
to believe it is
the hard part.**



Generation has outpaced verification.

● THEIR OWN LEADERSHIP, SAYING IT

“While the cost of generation has decreased exponentially, the cost of verification has not.”

THE WHITE HOUSE SCIENCE OFFICE, *SCIENCE: A NEW GOLDEN AGE*, JULY 2026 · WHITEHOUSE.GOV

The same office wrote that the Genesis Mission must build “a verifier equal in rigor and scale”.

THEIR OWN WRITTEN ORDERS, WORD FOR WORD · READ 20 OCTOBER 2026 · NO AGENCY ENDORSES ZERO-TRUST PHYSICS

THE DEPARTMENT OF WAR

Artificial Intelligence Strategy for the Department of War, 9 January 2026

“We must eliminate blockers to data sharing, Authorizations to Operate (ATOs), test and evaluation and certification, contracting...”

media.defense.gov

DOD CIO

DoD Zero Trust Strategy, 21 October 2022

“Components must achieve the intended Target level outcomes of each DoD Zero Trust Capability and execution enabler no later than the end of FY2027.”

dodcio.defense.gov

NATIONAL SECURITY AGENCY

CNSA 2.0 and Quantum Computing FAQ, Ver. 2.2, October 2026

“...by January 1, 2027, CNSA 2.0 algorithms will be required in all new acquisitions for NSS...”

media.defense.gov

NASA

NASA-STD-7009B, Standard for Models and Simulations, 5 March 2024, [M&S 26]

“...include the type of limit exceeded, the extent that the limit was exceeded...”

standards.nasa.gov



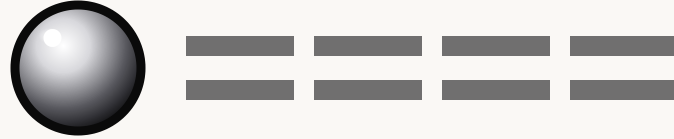
That is what Zero-Trust Physics is for.

● WHAT EVERY ANSWER CARRIES



The answer.

SI agents ask it questions about real hardware.



Its proof and its signature.

SHA-384 and ML-DSA-87, with an expiry and a nonce: the CNSA 2.0 algorithms. Any agent can run it again and get the same bytes.



Flags with their extent.

Past what a model was compared with, it flags every step with the limit, the value and the extent past it. At a physical limit, or where its equations, constants or tables no longer hold, it stops and names the reason.



Zero trust down to the Data pillar: the number itself, verified.

Zero trust authenticates the agent. Zero-Trust Physics computes the number the agent reports again with deterministic physics, seals it SHA-384 and signs it ML-DSA-87, so any node can verify it, connected or not.

POST-QUANTUM · CNSA 2.0

Every seal SHA-384. Every run, solve and dataset signed ML-DSA-87.

A 3,600-second expiry and a nonce. An expired, replayed, forged or wrong-key signature is refused by name.

ZERO TRUST · DATA PILLAR

The number verified, not only the agent.

The same bytes on every machine: at the open address, 379 of 379 worked answers match the company's own build byte for byte.

VV&A · MIL-STD-3022

A V&V Plan and a V&V Report for SPERT III, on engine 0.15.0.

Prepared by Protocol Company to MIL-STD-3022 with Change 1: the evidence a user's own authority accredits under DoDI 5000.61. On request.

SUPPLY CHAIN · SBOM AND SLSA

A signed SBOM and SLSA v1 provenance for release 0.15.0.

SPDX 2.3 and CycloneDX 1.5, 297 crates, each record signed ML-DSA-87. On request.

PLACARDING · NASA-STD-7009B

Every flag carries the limit, the value and the extent past it.

SPERT III C-core at 1.25 dollars: FLAG_HOT_SPOT_BOILING, limit 627.06 K, value 663.93 K, 36.87 K past it.

DDIL · VERIFY OFFLINE

Verify with no engine and no network.

A 206-line standard-library Python program verifies a proof; the signature verifies against the public key held on the node.

T&E OF SI AGENTS

Scored by computing the agent's request again, with no judge.

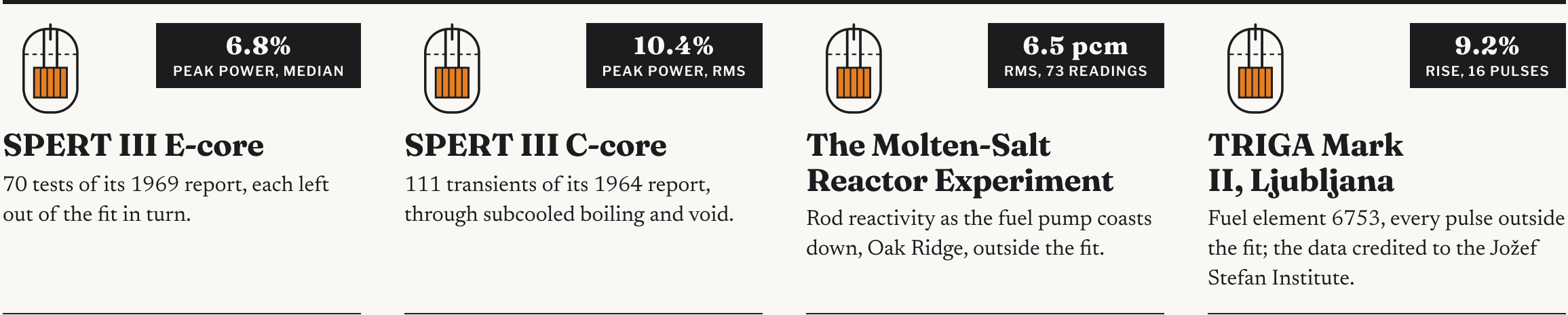
A public benchmark sends each agent's own request to the verifier again: Environments, on Hugging Face.

CRITICAL INFRASTRUCTURE · OT

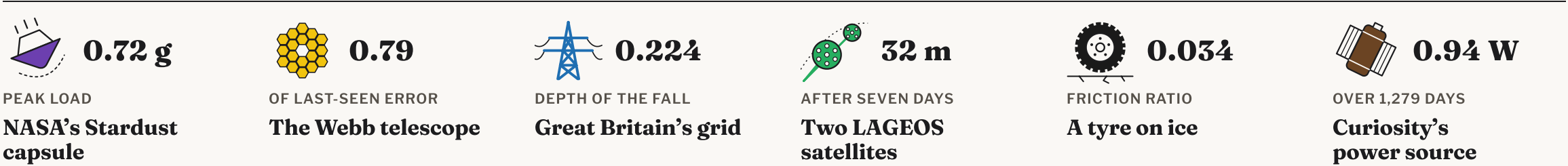
Physics catches the spoofed sensor that cryptography passes.

Readings signed at the edge by the instrument's key (Ed25519). Paper v2.0 §5: a current routed around the shunt, every signature valid, sits 78.3 mV RMS from the physics against 7.9 mV honest. The answer: ML-DSA-87.

Four reactor cores, each compared with its own measurements.



IT DIDN'T STOP AT THE REACTOR: EACH A REAL THING OTHER PEOPLE MEASURED, EACH NUMBER ON MEASUREMENTS OUTSIDE ITS FIT



61 models are served: 36 cards and 25 solvers; 46 are compared with measurement. Four reactor datasets sealed on engine 0.15.0, a proof in every row, are on Hugging Face.

How to buy.

A Service-Disabled Veteran-Owned Small Business: UEI ETHNBFS4QZM1 · CAGE 1AGP2 · primary NAICS 541715 · active on SAM.gov through 19 March 2027. Its founder and CEO, John Kruze, is a service-disabled U.S. Army veteran.

SDVOSB sole source.

Up to \$5 million under NAICS 541715 without competition, when the contracting officer expects no offers from two or more SDVOSBs: RFO FAR 19.106-3 (DoD Class Deviation 2026-00037). No justification and approval is required.

A Commercial Solutions Opening.

10 U.S.C. 3458 and DFARS 212.70: commercial products, commercial services and nondevelopmental items, with follow-on production.

An Other Transaction agreement.

A prototype project under 10 U.S.C. 4022, every significant participant other than the government a small business (4022(d)(1)(B)); follow-on production under 4022(f).

Tradewinds.

The Solutions Marketplace (W519TC-23-S-CTSM): a solution assessed Awardable can be awarded by any DoW office without further competition.

DIU's Commercial Solutions Opening.

The Defense Innovation Unit's standing CSO, awarded by Other Transaction.

A CRADA.

15 U.S.C. 3710a, with a DoW laboratory or a DOE national laboratory: research on your own data, under the laboratory director's authority.

A Genesis Mission Phase II seat.

An industry partner for a Phase II team under DE-FOA-0003612, funded or unfunded; letters of commitment by 17 December 2026.

What you can ask for.

A validated model and sealed dataset of your hardware. A dedicated verifier on your network. SI agent T&E and workflow integration.

John Kruze presented *Zero Trust for Physics: The Unverified Attack Surface in DefenseAI* at the Department of War Zero Trust Virtual Learning Exchange, Day 2, April 2026: [the recording](#).



Hand it to your agent.

<https://mcp.zerotrustphysics.com/mcp>

Open to any agent.

● SOMETHING TO PASTE

Connect to
<https://mcp.zerotrustphysics.com/mcp>
and read what is there. Then tell me
what it is, and why it might matter to me.

● REACH JOHN KRUIZE

**Give the address and this page to your
own agent first. Then write or call.**

THE PAGE **<https://zerotrustphysics.com>**

WRITE **kruze@zerotrustphysics.com**

CALL **928-264-7883**

Written by Super Intelligence, on behalf of Protocol Company. Where John Kruze is quoted, the words are John's own.

THE REST OF THE SET · THE THINGS zerotrustphysics.com/things/ · THE SHEET zerotrustphysics.com/sheet.pdf · THE DECK zerotrustphysics.com/deck/ · THE PAPER, V2.0
doi.org/10.5281/zenodo.23517223

