nuum robotics

SNAKE-LIKE ROBOTS FOR TURBOMACHINERY INSPECTION

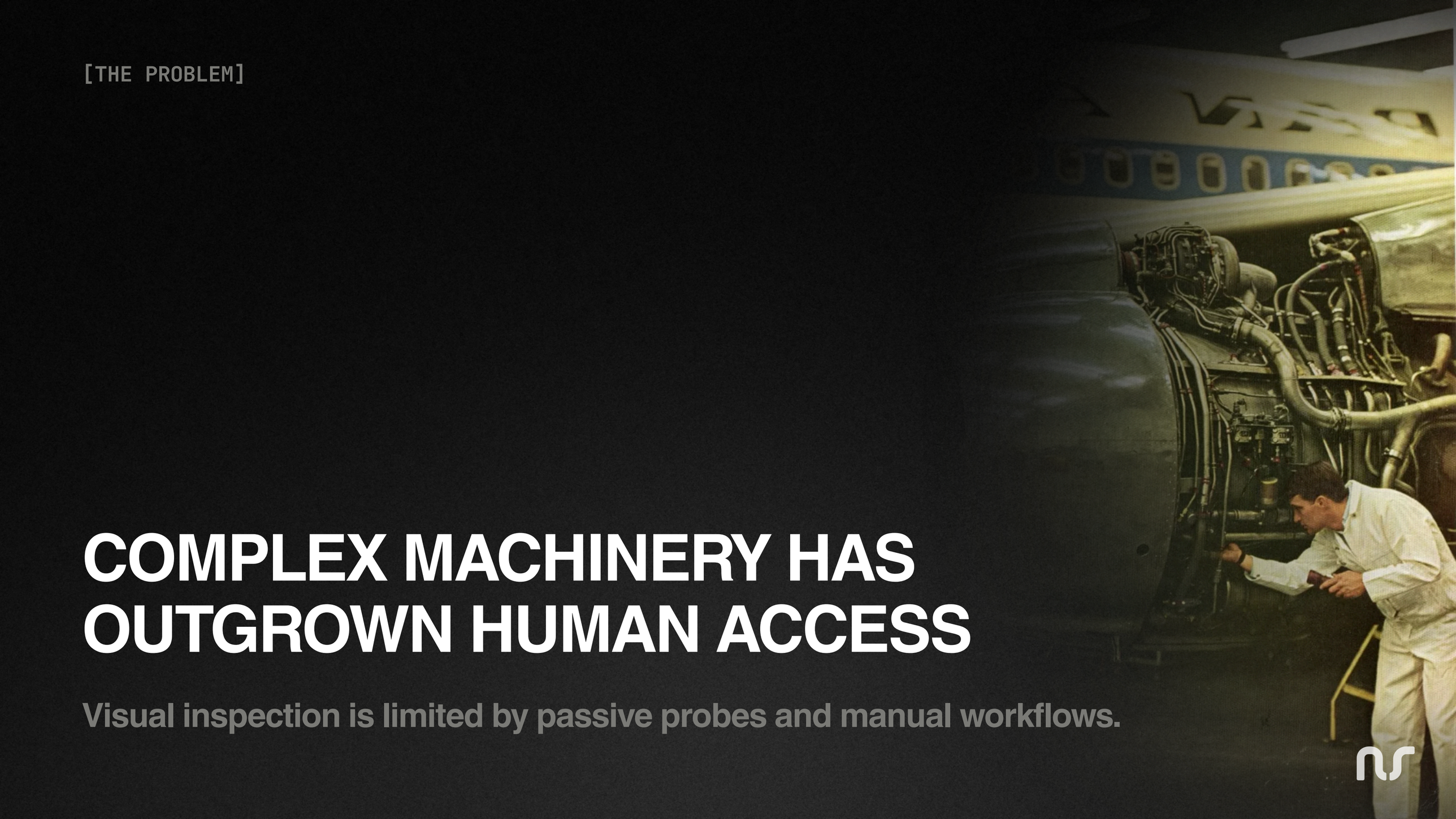
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[THE PROBLEM]

COMPLEX MACHINERY HAS OUTGROWN HUMAN ACCESS

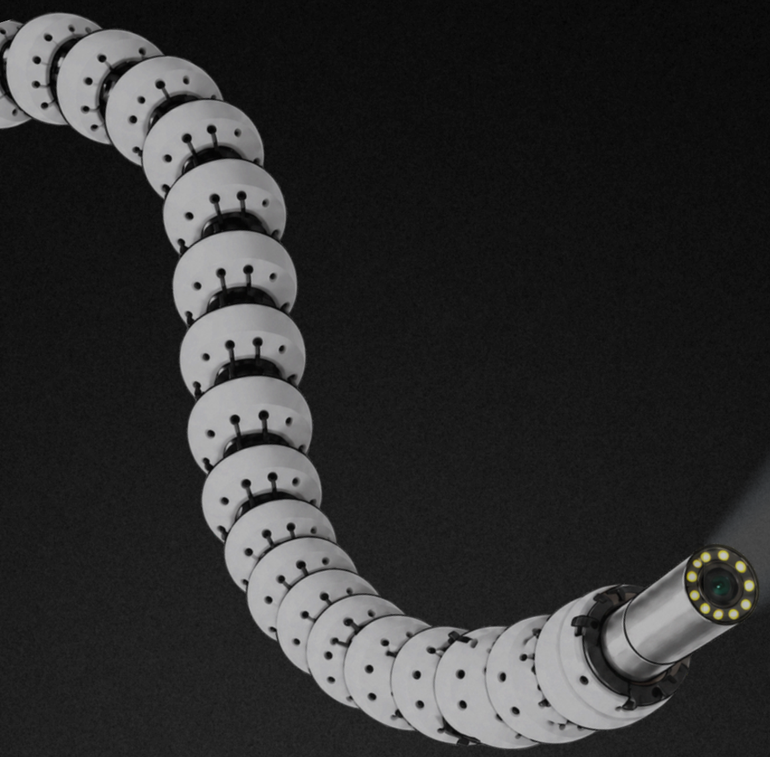
Visual inspection is limited by passive probes and manual workflows.



[SOLUTION]

CONTINUUM ROBOTS

Novel snake-like architecture



STAGE 1

ROBOTIZE ACCESS

STAGE 2

AUTOMATE INSPECTION

STAGE 3

MULTI-ROBOT SYSTEMS

[MARKET]

TURBOMACHINERY INSPECTION WEDGE

MAINTENANCE, REPAIR, AND OVERHAUL MARKET

AVIATION

COMMERCIAL:
$70.1B MARKET
61,000 ENGINES IN SERVICE

PRIVATE:
$29.4B MARKET
49,000 ENGINES IN SERVICE

WE START HERE

DEFENSE

$48.5B MARKET
55,000 ENGINES IN SERVICE

AEROSPACE

ROCKET PROPULSION INFORMATION LARGELY UNKNOWN ~$15 B MARKET

REUSABLE ROCKET INSPECTION IS YET TO BE STANDARDIZED

ENERGY

DATA CENTER INFRA MRO ~$30 B MARKET

GAS TURBINE MRO IN POWER SECTOR ~18B MARKET

[PROBLEM → SOLUTION]

STAGE 1
ROBOTIZE ACCESS

STAGE 2
AUTOMATE INSPECTION

STAGE 3
MULTI-ROBOT SYSTEMS

Aircraft technicians manually steer passive borescopes through complex engines, with the constant fear of getting stuck. While the aircraft stays grounded, it may result in costs of:

US$1.5M+

A fully controllable, snake-like robotic arm that conforms to its environment and brings dexterity deep inside machinery.

[PROBLEM → SOLUTION]

STAGE 1
ROBOTIZE ACCESS

STAGE 2
AUTOMATE INSPECTION

STAGE 3
MULTI-ROBOT SYSTEMS

Experience is leaving faster than it can be trained; fewer hands, less experience globally.

710,000 technician shortfall by 2040

Repeatable, AI-defined inspection paths with known robot pose, consistent coverage, and localized defects.

[PROBLEM → SOLUTION]

STAGE 1
ROBOTIZE ACCESS

STAGE 2
AUTOMATE INSPECTION

STAGE 3
MULTI-ROBOT SYSTEMS

Dissassembly is required to perform all repairs,
it is time consuming for airlines and OEMs, totaling between:

US$500K–10M

Multiple tool-carrying continuum robots deployed inside machinery to retrieve, clean, weld, and repair, without major disassembly.

[BUSINESS MODEL]

$25K UNIT COST,
$150K/YEAR UNIT LEASE.

US$1M–$5M ARR
customer (MRO, A&D, OEM)

x 20-100 customers = US$100M ARR

- **81%**
  gross margin at scale
- **2.3 months**
  to earn back the hardware
- **1 stuck tool**
  pays for 10 years of contract

[PROGRESS]

PROBLEM TO IMPACT

HANGAR DISCOVERY
May, 2026

SIGNED LOIs
August, 2026

BENCH PROTOTYPE
September, 2026

ENGINE TEST #1
Plan: November, 2026

PAID PILOT
Goal: December, 2026

[THE RAISE]

US$3M PRE-SEED

THIS ROUND GETS US (12-18 months)

1. In-engine validation
2. Paid pilot deployments
3. Production-ready platform
4. Repeatable commercial proof

NEXT

SEED (in 12-18 months)
Prove repeatability across A&D

SERIES A (in 36 months)
Scale the platform

[THE TEAM]



MARK SEEMANN

Co-founder · Hardware



ISAAC MACLEAN

Co-founder · Software

Mosaic · continuum robotics lab · VELOCITY · Loran · MaRS IAF · SickKids | Temerty Medicine



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