PRE-SEED · 2026

Technologic

Modular consumer electronics.
Built to last. Built to scale. Built for what comes next.

> The ability to perform in-situ repair of electronics at the component level can **dramatically reduce mission risk** and increase crew independence.

NASA — COMPONENT-LEVEL ELECTRONIC ASSEMBLY REPAIR (CLEAR) PROJECT

What if the technology NASA needs for Mars is exactly what Earth needs right now?

THE PROBLEM

62 million tonnes of e-waste a year. We recycle less than a quarter of it.

$62B

in recoverable materials lost annually

$19B copper · $15B gold · $16B iron

22%

formally recycled

Declining to 20% by 2030

1 in 3

replaced devices still work

Discarded while functional

87%

drop in component lifecycles

From 30 years to under 4

E-waste is growing 5x faster than recycling infrastructure. 1.55 million trucks of it would circle the equator bumper-to-bumper.

Source: UN Global E-waste Monitor 2024

THE INSIGHT

Modular hardware keeps failing.
The engineering was never the problem.

- **Project Ara** 2013–16 — Modules 50–100% more expensive. 25% size/weight penalty. Cancelled.
- **Phonebloks** 2013 — Viral concept, zero product. Inspired Ara, then vanished.
- **LG G5** 2016 — Two modules shipped. Abandoned after one generation.
- **Moto Z** 2016–18 — 14 Moto Mods launched. Ecosystem died quietly.

Every single attempt lived inside a company whose revenue depended on you replacing the whole device. The incentive structure killed the product before engineering ever could.

THE SOLUTION

Technologic

A modular electronics platform where the business model and the product aren't fighting each other. One standardized interconnect across device categories.

● Swappable

Upgrade or replace individual components. Not the whole device.

■ Repairable

Fix what's broken. A dead battery doesn't kill a device.

▲ Upgradeable

New processor in two years? Swap the module. Keep everything else.

◆ Open

Published specs. Third-party modules. Community-designed expansions.

WHY THIS MATTERS BEYOND EARTH

On Mars, you can't ship a replacement. Modularity is survival not just a feature.

26 months
between Mars launch windows

6–9 months
transit time, each way

$200K /kg
to deliver payload to Mars surface

41%
of small satellites fail or partially fail

The ISS has operated for 25+ years through modular Orbital Replacement Units. But NASA's own CLEAR project found ORU-level replacement is 1,000x less efficient than component-level repair. For Mars, you need modularity at every layer.

Our thesis: What's essential for space is transformative for Earth.

WHY NOW

Four forces. All converging.

01

Regulation

EU Right to Repair mandatory July 2026. Six US states passed laws. Oregon banned parts pairing entirely.

02

Consumer demand

80% willing to pay ~10% premium for sustainability. Gen Z chooses sustainable over brand names 75% of the time.

03

Technical feasibility

USB4 and Thunderbolt 5 solved the bandwidth problem that killed Project Ara. EU USB-C mandate standardizes charging across all devices by April 2026.

04

Market proof

Framework raised $45M, shipped 100K+ laptops. Fairphone: €87M raised, €54M revenue. Back Market: $5.7B valuation.

FIRST PRODUCT

The Player

A modular digital audio player. Retro form factor, modern architecture. The beachhead that proves the interconnect works across components.

DAC
Swappable audio chipset

Storage
Expandable local media

Amp
Headphone amplifier

Wireless
Bluetooth · WiFi

Battery
Hot-swappable power

Display
Upgradeable screen

$800–$3,700
Premium DAP price points (Astell&Kern)

$107M
Portable DAP market

MARKET

The categories with zero modular options.

CONSUMER ELECTRONICS

$1.2T

annually, 5.5–7.8% CAGR

KITCHEN APPLIANCES

$242B

smart kitchen: 12.4% CAGR

CLIMATE TECH INVESTMENT

$40.5B

2025, +8% YoY

UNADDRESSED CATEGORIES

Home appliances	No modular options
Wearables & fitness	No modular options
Smart home devices	No modular options
Consumer audio	No modular options
Kitchen electronics	No modular options

Sustainable products grow 2.7x faster than conventional. 17% market share, capturing 32% of growth.

ROADMAP

From one device to an ecosystem.

01 · 2026

The Player

Working prototype

Crowdfunding campaign

First 1,000 units shipped

02 · 2027

Expand

Second device category

Module marketplace

Third-party developer SDK

03 · 2028

Platform

Smart home integration

Kitchen electronics

Module licensing program

04 · 2029+

Scale

Enterprise / space contracts

Open standard consortium

Global manufacturing

Each phase shares the same interconnect standard. Every module sold in Phase 1 works in Phase 4.

BUSINESS MODEL

Compounding revenue, not replacement cycles.

Device Sales Base units at 40%+ gross margins — 40%

Module Sales Upgrades, replacements, specialty components — 30%

Licensing Third-party certified modules, open spec revenue — 20%

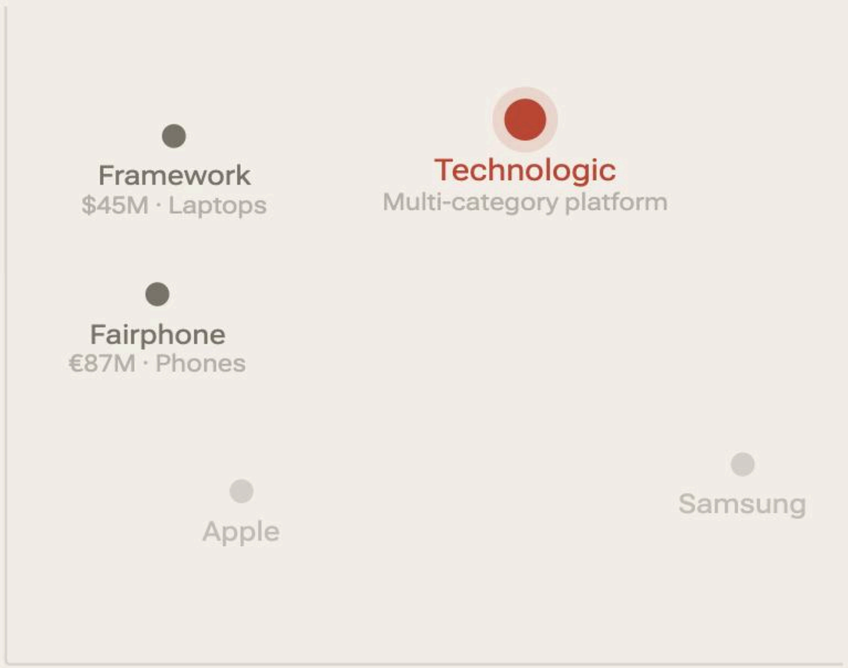
Enterprise Space agencies, industrial, defense — 10%

LTV multiplier: A customer upgrading modules for 10 years is worth far more than a single device sale.

HaaS premium: Hardware-as-a-Service earns 59% higher median revenue multiples.

LANDSCAPE

The goal is not to compete with Framework but to expand the map.



WHY INCUMBENTS WON'T BUILD THIS

- Device upgrade cycles drive repeat purchases
- Proprietary parts sold through authorized channels only
- Ecosystem lock-in creates switching costs
- iFixit-Samsung partnership ended 2024 — no interest in repair at scale

FOUNDER

Suhit Agarwal

24 · Software & Design Engineer · Applied & Computational Mathematics @ USC

Founding Product Engineer
Curio

AI hardware startup. ESP32-based interactive toys. Shipped production firmware and mobile app (app was a solo endeavor).

First Employee
Trufflepig

Spreadsheet startup. Built the product from zero as first hire.

VR Development
Independent

Immersive education prototypes. Designed a VR-based school replacing lectures with lived experience.

KEY HIRES NEEDED

Hardware engineering lead
Industrial designer
Firmware engineer

THE ASK

Pre-Seed · $1M - $1.5M

USE OF FUNDS

Hardware engineering	40%
Tooling & first production run	25%
Design & prototyping	20%
Operations & community	15%

MILESTONES UNLOCKED

- Production-ready Player prototype
- Validated interconnect architecture
- 5,000-unit initial production run
- Module ecosystem foundation
- Crowdfunding campaign launch
- Path to seed round

THE VISION

When humanity becomes a spacefaring civilization, modularity won't be a nice-to-have.

It will be how everything is built.

We're starting now.

Technologic

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Modular electronics for Earth and beyond.