

HARDWARE PRODUCT STUDIO ·  
FOUNDED 2024

# From napkin sketch to shipping product.

0 → 1 hardware product engineering for serious founders and teams. Electronics, mechanical, embedded firmware, and manufacturing — under one accountable owner, through pilot and mass production.

The kind of work that stops the moment there is more than one contractor pointing at each other's spec.

**10K+**

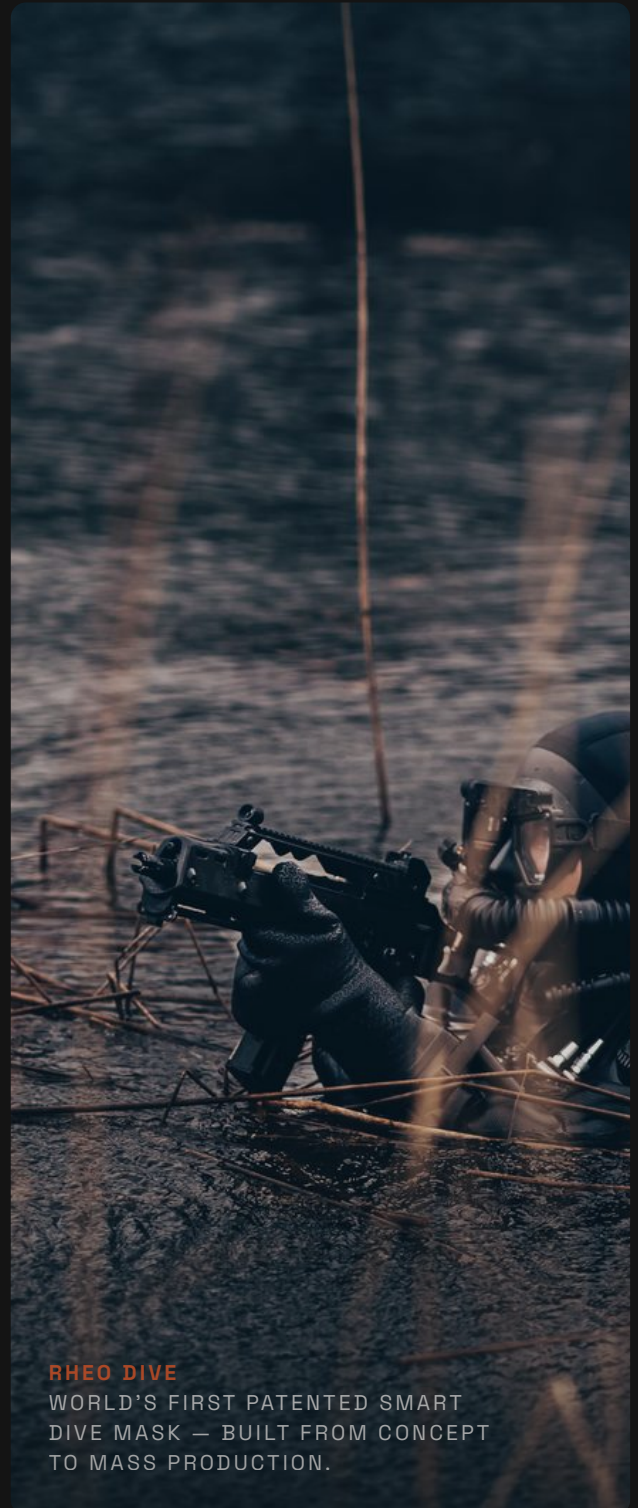
TURBINES  
SERVICED BY  
SYSTEMS WE  
BUILT

**30+**

COUNTRIES OUR  
CLIENTS SHIP INTO

**€2M+**

ANNUAL SAVINGS  
FOR ONE LAB-  
AUTOMATION  
CLIENT



## RHEO DIVE

WORLD'S FIRST PATENTED SMART  
DIVE MASK — BUILT FROM CONCEPT  
TO MASS PRODUCTION.

## SHIPPED FOR

Lockheed Martin • Aston Martin • BMW • NextEra • GE Vernova •  
Vestas • Enel • Siemens Gamesa • FDNY • Honeywell

## Selected work

Every project below: our team led the engineering end-to-end, through cert and manufacturing where applicable.



### Aerones 2021-2024

#### INFRASTRUCTURE TRIBE LEADERSHIP

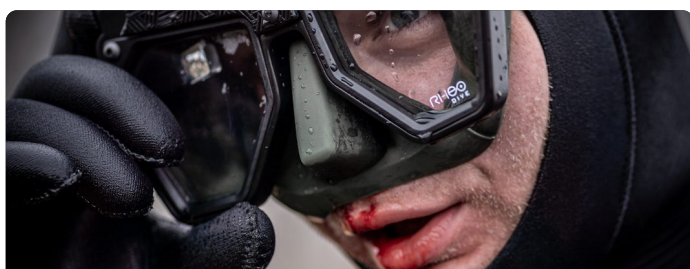
Robotic wind-turbine service platform. Custom battery systems, next-gen winches, industrial control migration, AI inspection. 10,000+ turbines, 27 countries.



### AimRobotics 2017-2024

#### CTO · FULL PRODUCT COMPANY

Precision robotic dispensing for cobots. Custom motors, custom PCBAs, patents, EMC. Deployed at Lockheed, Aston Martin, BMW across 30+ countries.



### Rheo Dive 2024-present

#### CTO · FULL PRODUCT OWNERSHIP

World's first patented smart dive mask. Custom PCBA, custom optics, custom displays, silicone tooling, iOS app, patents. POC → EVT → DVT → PVT → MP.



### NovaticLab 2020-2024

#### A-TO-Z PRODUCT ENGINEERING

Clinical lab automation. Custom AMRs navigating elevators and doors, robotic sample stations, self-sampling kiosks. €2M+ annual savings at deploying lab.



### Marconi Technologies 2023-present

#### PRODUCT ENGINEERING PARTNER

NYC life-safety comms. Power systems, embedded platforms, new product lines. UL / ETL / NFPA / FDNY-approved gear for buildings that can't afford failure.



### Charlie Charger 2023-2024

#### NAPKIN → MASS PRODUCTION

World's first fingerprint-locked USB charger. Power electronics, biometric firmware, injection molding, ultrasonic welding, mfg in Asia.

# What we do under one roof

Hardware products are cross-discipline problems. Splitting them across contractors is where they break.

## Electronics & PCBA

- Architecture, schematics, layout (Altium / KiCad)
- Power electronics, battery + BMS, motor drives
- RF: BLE, Wi-Fi, LTE, GNSS, antenna keep-out
- Sensor integration, precision analog
- DFM, EMC pre-compliance, CM handoff

## Mechanical & Manufacturing

- Industrial design + mech eng (SolidWorks, Fusion 360)
- Injection molding, silicone tooling, CNC, SLS / MJF
- Enclosures around fixed PCBAs, tolerance stacks
- Chinese & Taiwanese ODM relationships (1K–10K/yr)
- Pilot builds through mass production

## Firmware & System

- Bare-metal + RTOS, STM32 / Nordic / ESP / Radxa
- Embedded Linux, ROS 2, cobot integration
- Computer vision, ML at the edge
- Mobile companion apps (iOS / Android)
- Certification: CE / FCC / UL / IEC / NFPA

## HOW WE WORK

Fixed-price phases. One accountable owner.

# 01

2–4 WEEKS

### Definition & Architecture

System architecture, technology choices, feasibility, risk register, BOM target, ODM shortlist. Fixed price. You keep everything even if you walk.

# 02

2–4 MONTHS

### Prototype & Validation

PCBAs, mechanicals, firmware, first working device. EVT / DVT. Field-tested against the constraints that will actually kill the product in production.

# 03

2–6 MONTHS

### Production Readiness

DFM, cert routing, tooling, CM negotiation, pilot build supervision. Clean handover — or we stay on retainer through mass production.

## Why founders choose us

Hardware fails at the seams — where mechanical meets electrical, where firmware meets manufacturing, where a spec written by one contractor lands on another's desk. Every project we ship is one team owning the tolerance stack end-to-end.

We say no to work that isn't a fit. That's why the ones we take on actually ship.

## What we don't do

Marketing sites. Generic dev-shop retainers. Contractor placement. Anything without a physical product at the end of it.

We are not the cheapest bid on the board. We are the last engineer you need to hire on the project.

## Have a hardware product to ship?

Send the spec, sketch, or CAD. First call is a diagnostic — no pitch, no retainer, no obligation. If we're a fit you'll know in 30 minutes.

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