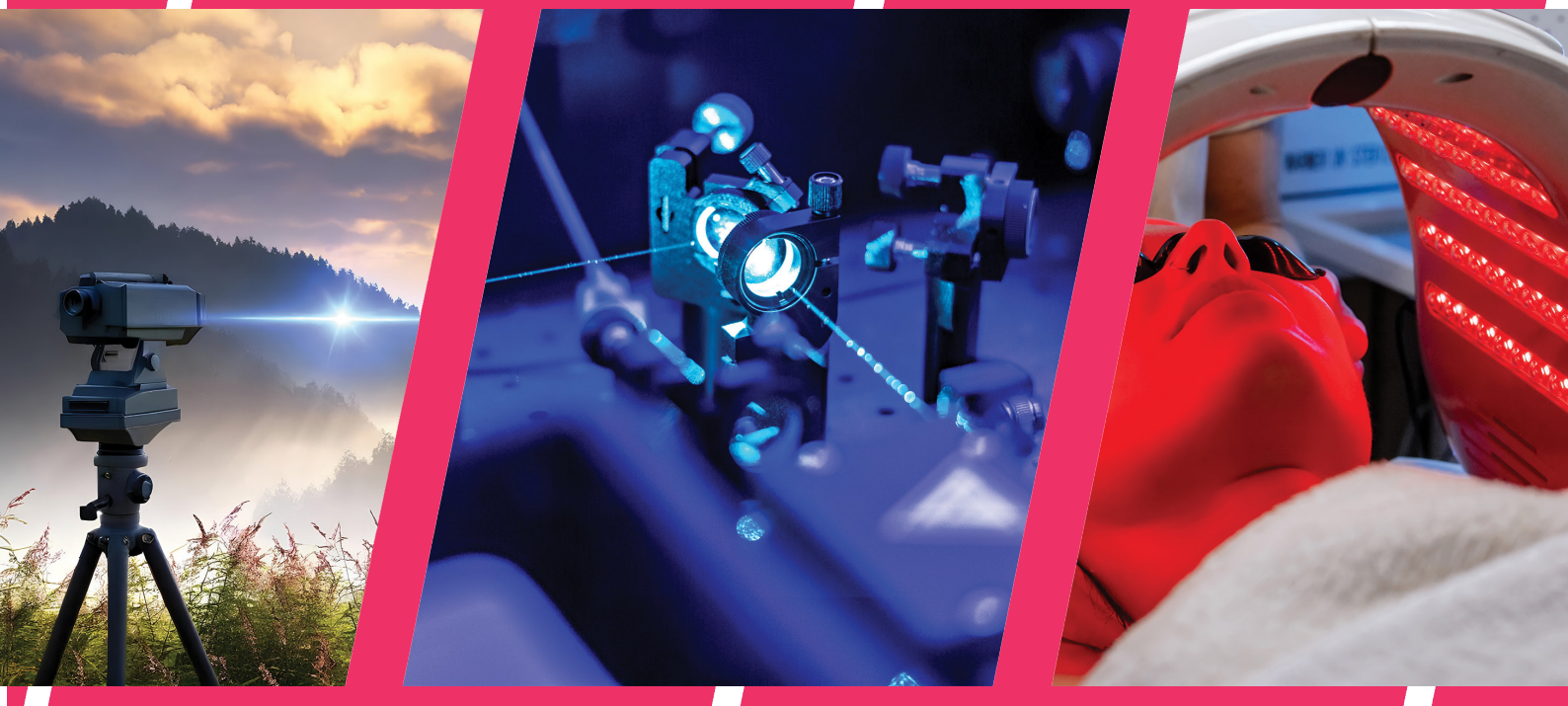
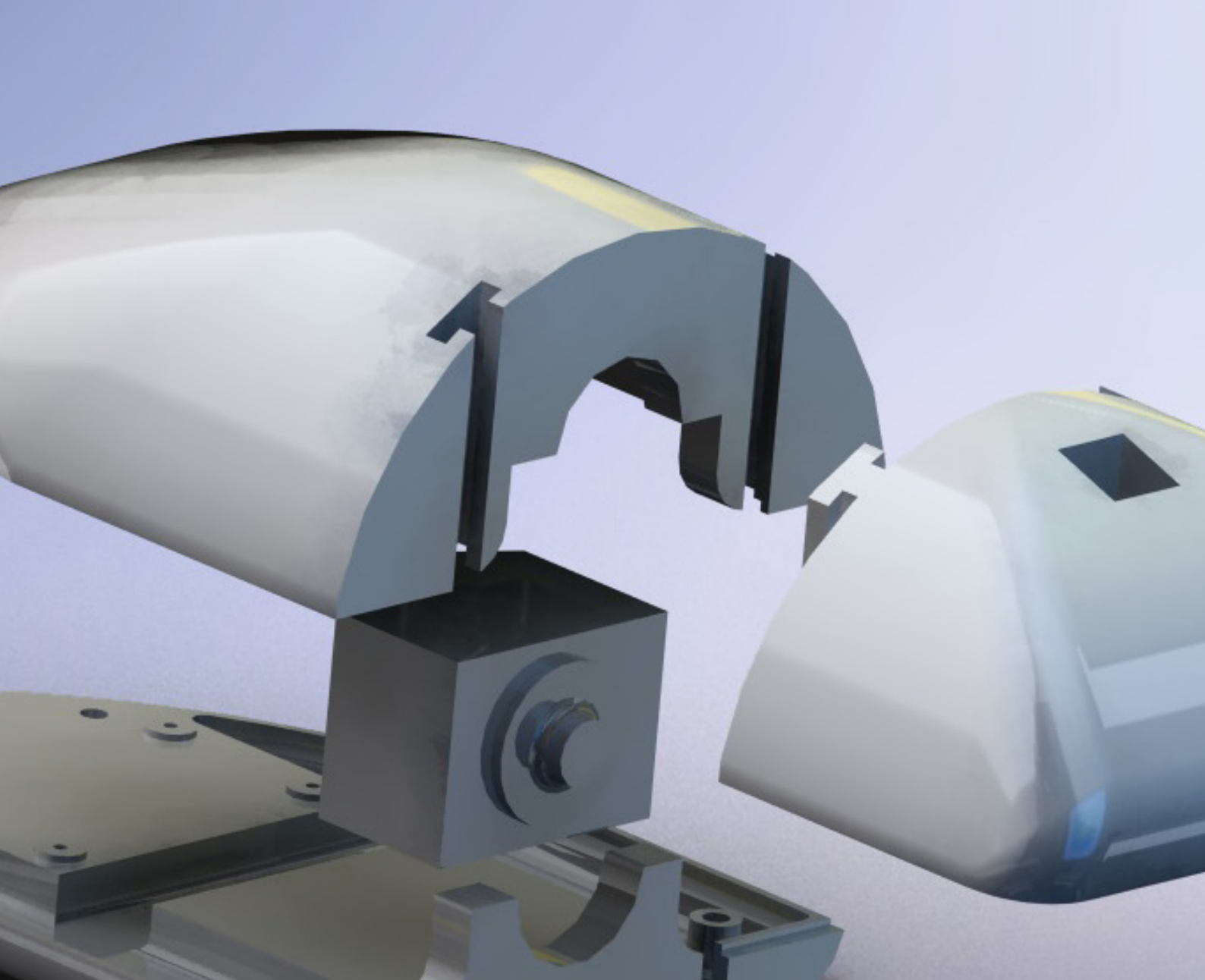


Special Projects Group





We Turn Complex Sensor Challenges into Manufacturable Products

At Solsta's Special Projects Group, we help customers in defence, biomedical, and adjacent highly regulated industries to transform ideas into reliable, compliant, production ready solutions.

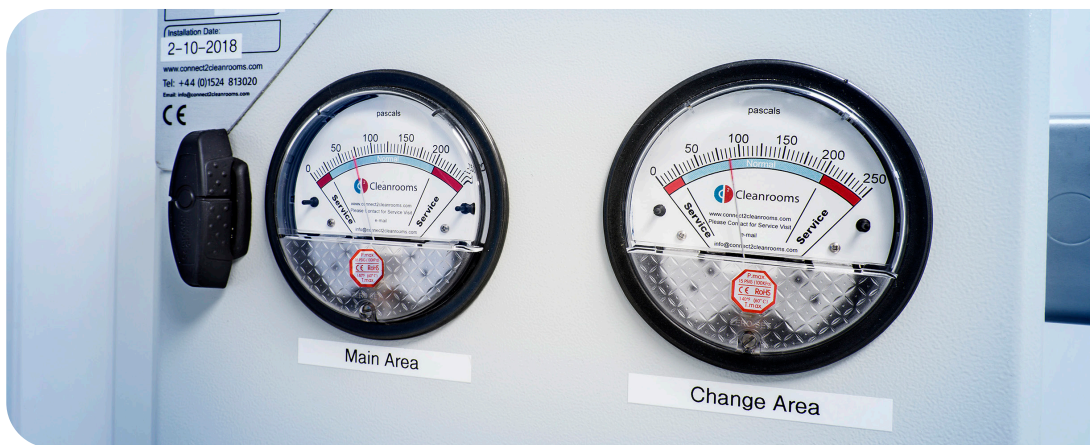
Whether you need a complete design of a new sensor subsystem, an enhanced version of an existing design, or a build-to-print manufacturing partner, we work to create high-performance products that meet evolving requirements while maintaining cost-effectiveness, manufacturability, and regulatory compliance.

Our business model is simple: You excel in developing cutting edge technologies. We excel in producing robust engineered solutions. Together, we can provide systems that fully and reliably exploit the value of the innovation that you have created.

Why Work With Us?

Your Challenges

Tight project timelines. Incomplete requirements specifications. Demanding compliance frameworks. A need for deep, specialist engineering knowledge. Products whose reliability and longevity are paramount.



Design for Highly Regulated Markets

ISO 13485 certified processes for product design and manufacturing.

Cross-Disciplinary Expertise

Optical, electronics, and mechanical design integrated into a single solution.

Design for the Full Lifecycle

From feasibility to productionisation and obsolescence management.

Engineering IP Retention

Ensuring secure, long-term control of critical designs.

Seamless Production Transfer

UK and US manufacturing facilities, cleanrooms, and high-reliability assembly with component level traceability.

We don't just solve technical problems;
We create products that thrive in the real world.

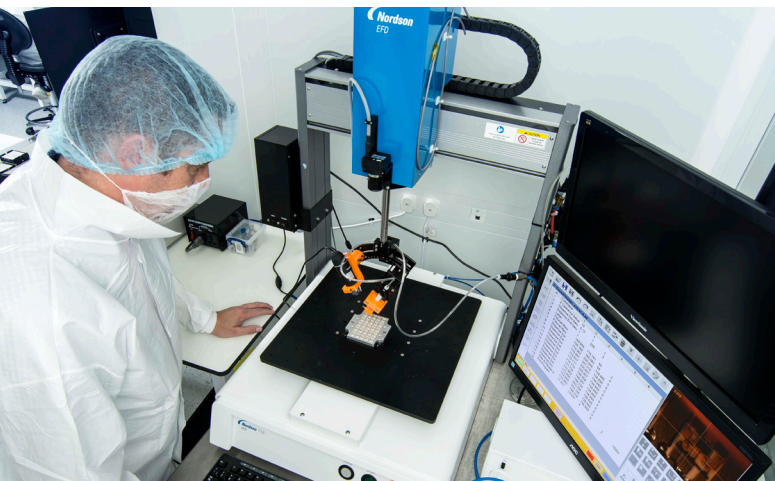
Our Approach

Our Process: From Concept to Production

We engage at any stage of your product journey – from concept to build-to-print.

- 1. Concept & Feasibility**
Defining requirements, assessing complexity, and scoping solutions.
- 2. Design & DFX**
Engineering for performance, manufacturability, servicing, and regulatory compliance.
- 3. Prototype & Validate**
Building and testing fully representative prototypes to de-risk production.
- 4. Engineering IP Retention**
Ensuring secure, long-term control of critical designs.
- 5. Production & Lifecycle Support**
ISO 13485 certified manufacturing with full traceability, stockholding, and obsolescence management.

Our APM qualified project managers guide you through each step, using industry-standard tools for visibility and control.



Proven in the Field

PROJECT EXAMPLES



DEFENCE

Retrofit Laser Rangefinder Receiver

Rapidly designed to integrate with an already deployed laser designator, this “bolt-on” sensor that arrives coaligned to the designator by design, has remained in production for more than a decade, requiring ongoing production engineering and obsolescence management.



PHARMACEUTICAL

Photochemistry Illuminator for Drug Production Optimisation

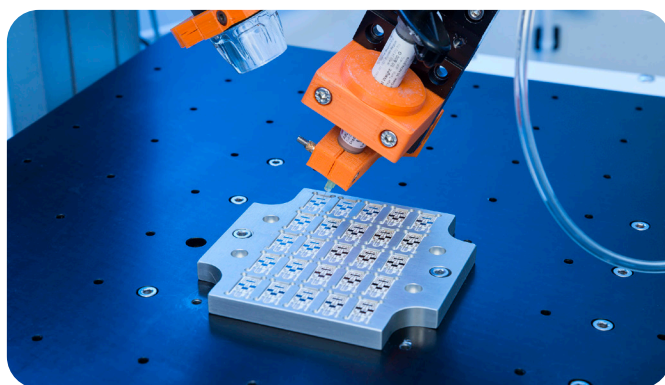
An advanced multi-wavelength LED system enabling scientists to optimise photocatalysis by adjusting power, wavelength, and pulse profile – accelerating discovery and improving yield.



INDUSTRIAL

Rugged Camera Inspection Unit

A weatherproof, camera agnostic platform streaming live video from the field, built for maximum reliability and compatibility in challenging environments.



BIOMEDICAL

Spectrometer module for sample analysis

Developed for integration into a urinalysis platform, this compact spectrometer module detects the presence of narcotics and key health indicators in biological samples. Designed for high sensitivity and reliability, it delivers precise, repeatable results within the strict regulatory and performance demands of clinical diagnostics.

Our Capabilities

SENSOR DESIGN

Optical, temperature, pressure, flow, and more.

ELECTRONICS

Analogue & digital design, firmware, signal processing, embedded displays, communications.

MECHANICAL

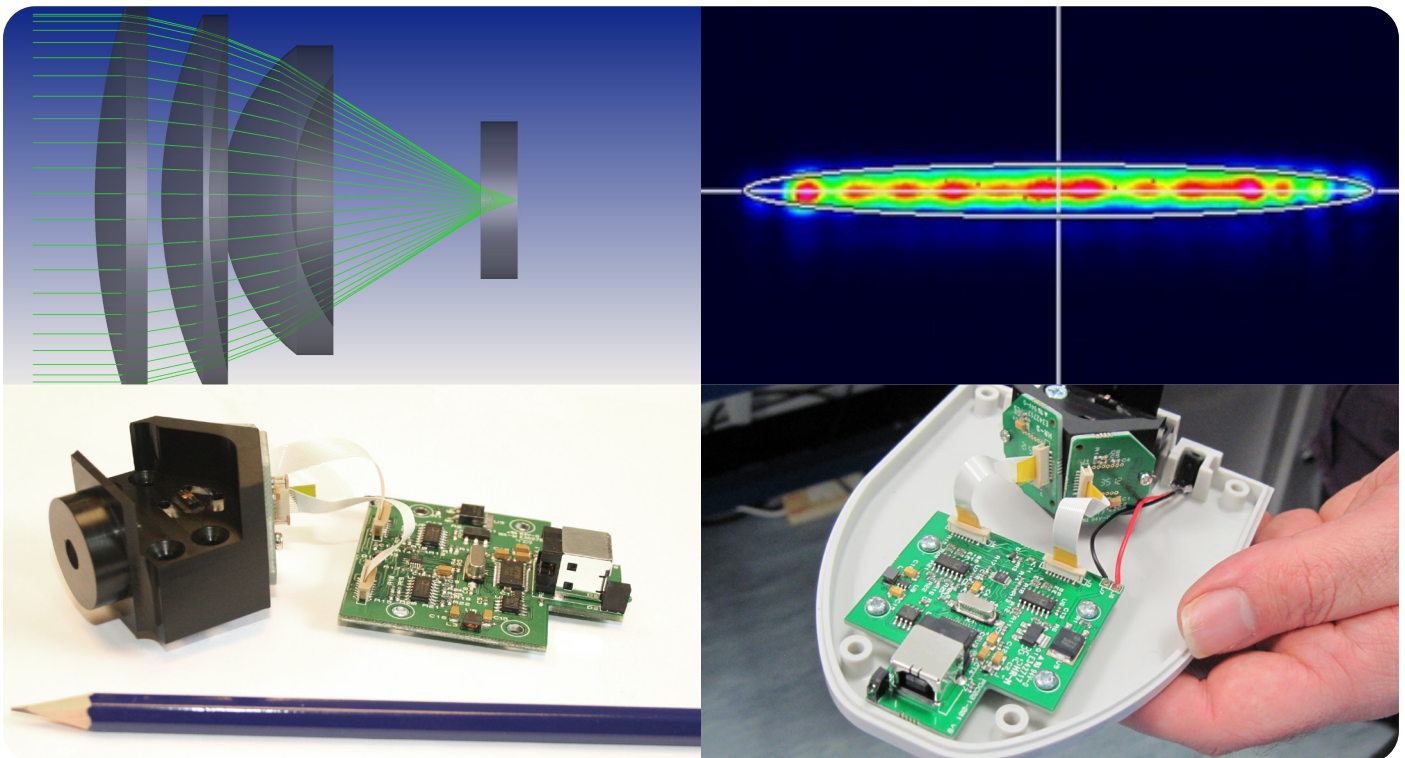
Ruggedisation, thermal & stress analysis, material selection.

DFX & ENGINEERING

Design for manufacture, assembly, reliability, and servicing.

ISO CERTIFIED MANUFACTURING

UK (ISO 13485, cleanroom) and US (ISO 9001, AS9120) facilities with full traceability.



A man with long hair, wearing a red and orange plaid shirt and blue jeans, stands in profile on the left side of the frame. He is looking towards a large, complex antenna structure on the right. The entire scene is set within an anechoic chamber, with walls covered in blue pyramidal electromagnetic absorbers. The antenna structure is made of grey pyramidal absorbers and has a silver cylindrical component with a white horn-like structure extending from it. The lighting is dramatic, with strong highlights and deep shadows.

Why Solsta?

Solsta combines the agility of a design house with the stability of a long term manufacturing partner, backed by the capabilities of the Solid State Group - including embedded computing, communications, and advanced manufacturing, with strong buying power and component support through our distribution supply chain.

We don't just deliver designs; We deliver robust, production ready solutions that protect your investment, reduce your risk, and unlock new opportunities for innovation.

Have you got a complex sensor challenge?.

Let's design the solution together.



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