

Cutting Costs, Maximizing Impact: How Custom Optics Upgraded Health Monitoring Without Replacing Equipment

Case study



Breathing New Life into Medical Imaging Systems

In a world where every diagnosis counts, a major chain of hospitals, research centers, and community labs faced a growing crisis.

Their trusted medical imaging systems—vital for patient care—were falling behind due to outdated optics.

Their original Supplier? **Long gone.**



The solution?

A full system replacement costs millions.

But the central maintenance division had a better idea: **upgrade the optics for a fraction of the cost.**



The challenge?



The optics were **built-to-print**, with no documentation, and no supplier could replicate them.

Perhaps there is an intelligent solution??



What did we do?

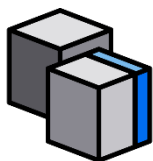
We tackled the problem with reverse engineering and a touch of seasoned experience:

-  **Precision Analysis:** Using advanced metrology, we disassembled and analyzed the original optics, creating a precise digital blueprint
-  **Modern Materials:** We upgraded the lenses with improved materials and custom anti-reflective coatings, boosting durability and image clarity





Prototyping & Validation: Prototypes were rigorously tested to ensure they matched—or exceeded—the performance of the originals



Scalable Production: With our vertically integrated manufacturing, we delivered hundreds of units on time, ensuring consistent quality across all endpoints



The Outcome

The improved optics not only increased the imaging devices' lifetime but also brought diagnostic accuracy back to life.

Better performance without expensive replacements helped hospitals and labs across the network, and the central maintenance division **saved millions.**



This project demonstrated that with the right expertise and skills, it is possible to breathe new life into even the most outdated systems, often with relatively little expenditure of capital.

When the stakes are high, we bring precision, creativity, and outcomes!





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