

Technology and Product Development: Focus on Ophthalmology



Science. Engineering. Business.

Triple Ring Technologies is a team of experienced engineers, physicists, and chemists who know how to collaborate. Our services span early-stage applied research, product development, pilot manufacturing, and entrepreneurial business development. These services **reduce risk, reduce costs, and shorten time to market.**

Understand. Simplify. Accelerate.

Visualization Solutions

Triple Ring is helping ophthalmic product companies solve key visualization problems, covering an array of modalities including optics, ultrasound, photo-acoustics, MRI and OCT. Our solutions for image processing and reconstruction challenges enable real-time or post-processed imaging for an array of surgical or diagnostic purposes.

Therapeutic Solutions

Triple Ring's team of physicists and optical engineers has developed therapeutic solutions for a variety of indications with applicability to ophthalmic conditions, including those of the retina and macula. These therapeutic modes include targeted radiation via a microfabricated X-ray source and image-guided surgical systems.

Clinical and Regulatory Solutions

Our clinical and regulatory team has extensive experience in ophthalmic product clinical strategy and development, clinical trial design and direction, IRB submissions, regulatory filings, and direct interfacing with the FDA and industry thought leaders.

Ideas. Prototypes. Production.

Triple Ring has offices serving Silicon Valley and Boston. The headquarters in Newark, CA are housed in a 41,000 sq. ft. facility that includes dedicated laboratories for electronics, optics, radiation source development, and mechanical prototyping; a machine shop; client office space; and a pilot manufacturing facility. Our quality management system is compliant with ISO 13485.

What We Deliver

Technology Development

- Feasibility Analysis
 - System architecture definition
 - Technical assessments
 - Modeling and simulations
 - Risk analysis
 - Literature surveys
- Proof-of-concept engineering
 - Complex optomechanical and electromechanical designs
- High-end imaging, reconstruction and analysis
 - Gigab/sec data acquisition
 - TeraOps/sec image processing

Product Development

- Product requirements documents (PRDs)
- Product engineering
 - Human factors design
 - Industrial design
 - Product design
- Complete risk management
- Validation and verification
- Manufacturing process control
- Pilot manufacturing

Clinical and Regulatory Affairs

- Regulatory strategy
- IRB submissions
- Clinical trial design
- IDE, 510(k) and PMA submissions
- CE mark submissions
- FDA expert panel presentations