

CYIENT

# TRUSTED PARTNER FOR MEDICAL DEVICE ENGINEERING SERVICES

How we work with our clients to help overcome challenges  
for a better tomorrow

CELEBRATING  
**25**  
YEARS

## Overview

While the demand for medical devices is increasing worldwide, the manufacturers are facing challenges in delivering innovative, timely, and compliant products consistently. This makes it imperative for them to look for solutions that are innovative, accurate, secure, and cost-effective. To achieve design and manufacturing excellence, the medical device industry is looking for solutions that:

- Shorten product life cycle
- Cut down manufacturing costs
- Ease financial pressures
- Reduce time-to-market

### **Cyient: Your Extended Design Arm**

At Cyient, we provide end-to-end engineering solutions for medical device manufacturers, supporting key product modalities. Our innovation-driven design methodologies and process frameworks are carefully designed to improve product innovation, contain costs, and reduce time-to-market. This results in robust and high-quality solutions that yield higher return on investment and reduce administration and ownership costs. With strict IP security and stringent quality control standards (ISO 13485 and FDA regulations), our solutions accelerate innovation to help clients gain a sustainable competitive advantage.

## Value Proposition

- Help reduce time-to-market through innovative design and timely delivery
- Improve cost efficiency by reducing engineering costs
- Help gain access to emerging markets
- Provide product localization support to meet specific market needs
- Provide competitive advantage by utilizing our inherent systems engineering approach to product design and associated capabilities

- Accelerate regulatory compliance certifications by proactively adhering to quality standards throughout the design phase

### **Focus Segments**

- Radiology and diagnostic devices
- Hospital, surgical, and life sciences
- Orthopedics
- Cardiology devices

## KEY HIGHLIGHTS

Innovation-driven product development with a focus on reliability, compliance, and IP security

Strong team of product engineers specialized in FDA Class I and II medical devices

ISO 13485:2003 certified design solutions with risk management framework as per ISO 14971:2007

Reliable and diversified product engineering competence

## Solution Offerings

### Concept Design

- Prior art search
- Benchmarking
- Industrial design
- Proof of concept
- IP services
- Feasibility study

### Design and Development

#### Electronics

- Architecture design
- Hardware and software development
- Prototype and pilot build
- Verification and validation
- Signal integrity, modeling, and simulation
- Electrical design
- ASIC, FPGA
- Component engineering
- FMEA, FTA, SHA

#### Mechanical

- Integrated CAD design
- FEA, CFD, structural, and thermal analysis
- Pneumatics design
- Tool design
- Design automation
- Rapid prototyping
- Testing and validation
- Plastics and materials engineering
- DOE, FMEA

### Life Cycle Support

#### Manufacturing

- DFM, DFA, DFT
- Test jigs development
- IQ, OQ, PQ, process validation, PFMEA
- Manufacturing test development
- System integrity testing
- Reliability engineering
- Packaging design
- Parts localization and vendor management

#### Platform

- Value engineering
- Reverse engineering
- Engineering change and configuration control
- Risk and hazard management
- Regulatory compliance
- DHF, DMR, DHR, UL, TCF filing support
- Homologation support
- Green engineering
- Technical publication

#### End of Life

- Obsolescence management
- Reengineering
- Product enhancements
- EOL analysis
- Sustenance engineering
- Product recall support
- Non-ROHS to ROHS conversion

**END-TO-END  
ENGINEERING  
SOLUTIONS FOR  
THE MEDICAL  
DEVICE INDUSTRY  
WITH VARYING  
COMPLEXITIES  
AND MULTI-  
FUNCTIONAL  
APPLICATIONS**

## About Cyient

Cyient is a global provider of engineering, manufacturing, data analytics, networks and operations solutions. We collaborate with our clients to achieve more and shape a better tomorrow.

With decades of experience, Cyient is well positioned to solve problems. Our solutions include product development and life cycle support, process and network engineering, and data transformation and analytics. We provide expertise in the aerospace, consumer, energy, medical, oil and gas, mining, heavy equipment, semiconductor, rail transportation, telecom and utilities industries.

Strong capabilities combined with a network of more than 13,500 associates across 38 global locations enable us to deliver measurable and substantial benefits to major organizations worldwide.

For more information about Cyient, visit our website.

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