





Product Development & Design

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PROJECT PROFILE

OTOSIM EAR SIMULATOR

CLIENT CHALLENGE

A world renowned Canadian teaching hospital developed a teaching concept for doctors in training in their otolaryngology department. The concept involved providing a platform for presenting various ear canal/drum conditions in a classroom environment. The hospital required New Product Development expertise in all stages of the New Product Development Cycle to fully develop the concept and co-invent the actual technology for patent protection, then bring the product to manufacturing and commercialization. Palladium provided:

- Development of User/Functional requirements
- Concept Engineering design and knowledgeable COTS sourcing
- Prototype CAD modeling
- Proof of Principle (POP) models and testing
- Assistance as co-inventor with patent registration
- Design for manufacturing plastics, appropriate materials
- Prototype design and manufacturing
- Final product supplier sourcing and manufacturing

Scope of Work

Palladium was retained for our expertise in medical products and the New Product Development field. The following tasks were required for the project:

- Identify user/functional requirements as a basis for development
- Validated concepts quickly by COTS sourcing and early POP models that narrowed the concept choices
- Expertise to keep the concepts aimed at producing an economically manufactured end product
- Early consideration of manufacturing costs and DFMA
- CAD design Solidworks
- Prototype design and manufacture
- Custom software development for PC and MAC.

PROJECT DELIVERABLES

Palladium staff delivered the following results:

- Commercially complete product featuring:
 - o Ready to manufacture design models and drawings
 - o Custom software ready for duplication
 - o ISO 9001 documentation of the design process
 - Pilot run of 25 saleable units.

Palladium's work enabled the client to:

- Move from a research idea to a patented commercial product now being sold to other teaching hospitals worldwide.
- Provide a well documented path for future design and prototype development with subsequent concept/ideas for commercialization.



