PROJECT PROFILE

DETECTION EQUIPMENT PRODUCT DEVELOPMENT

CLIENT CHALLENGE

Our client develops specialized analytical detection equipment that is sold to governments and agencies around the world. The client foresees a demand for a backpack version of an existing detection product incorporating similar functionality and portability. The client required New Product Development expertise in several stages of the New Product Development Cycle:

- Concept/Industrial design
- Knowledgeable COTS sourcing
- Proof of Principle (POP) models
- Design for manufacturing
- Prototype CAD modeling
- Scheduling and Cost Controls

SOLUTION

Palladium was retained for our expertise in analytical detection equipment and the New Product Development field. The following tasks were performed on the way to successful project completion:

- Valid concept path was quickly found by knowledgeable COTS sourcing and early POP models that narrowed the concept choices.
- Early POP Shock testing to validate anticipated G levels transferred to sensitive internal components.
- Specialized detection equipment suppliers were involved early in the prototype design stage to produce a manufacturable design that also exhibits the required performance.
- Concept CAD Edrawing models, Powerpoint slide shows, Comparison Tables, and Calculations were produced to efficiently convey design information to a design team that was spread over several remote locations (Europe, United States and Canada).

PROJECT HIGHLIGHTS

Palladium delivered the project within time and budget constraints due to our :

- Previous Product Development experience minimized the development time.
- Knowledgeable COTS sourcing and experience dealing with OEM manufacturers.
- POP models that prove the physics of concepts before designs are taken to the prototype stage.
- DFMA expertise.
- Use of up to date distance collaboration tools.

Palladium's work enabled the client to:

- Quickly produce a realistic design concept.
- Mitigate design risks by intelligent use of early POP models/testing and analytical analysis.
- Provide a well documented path to more detailed design and prototype development.