



“We are excited to continue our partnership with the Helix Design team as we introduce our latest hand-held device into our RMLD product line.”

**Kevin Bendele**

Director of Engineering  
Heath Consultants Incorporated





**RMLD-CS**  
Remote Methane Leak Detector  
Complete Solution



Side View

Field Utility Vest



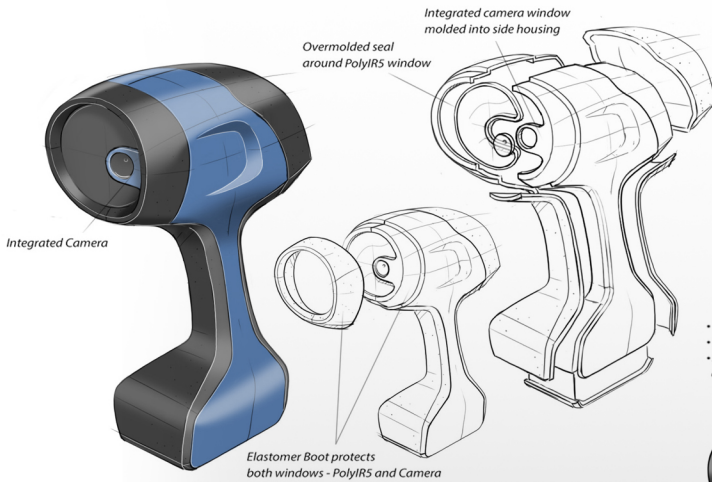
**PROJECT OBJECTIVES:**

- Need for a next generation enclosure design with intuitive user interface
- Ergonomic and rugged design to environmentally protect internal optics and hardware components
- Accessory development to include:
  - Dual battery charging system
  - Battery enclosure
  - Safety/utility vest and harness



**PRODUCT SOLUTIONS:**

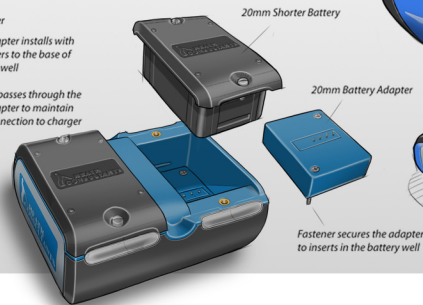
- Durable, light weight enclosure with ergonomic over molded elastomer grips and bumpers
- Meets IP54 environmental standards
- Internal mounting to reduce vibration and shock
- Intuitive battery enclosure and dual battery charging system
- Multiple utility vest and harness options for enhanced comfort and safety



**Mechanical Concepts**

**20mm Battery Adapter**

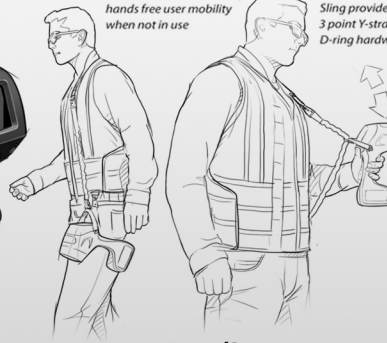
- Battery adapter installs with two fasteners to the base of the battery well
- The circuit passes through the battery adapter to maintain battery connection to charger



**Concept Development**

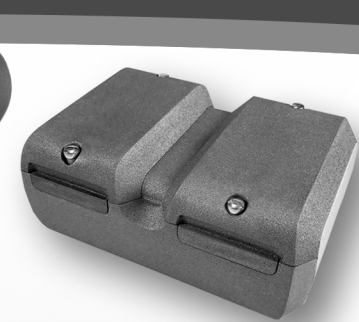


- Stainless steel turrets accommodate a variety of standard strap
- Turrets rotate freely to allow Y-strap to follow axis
- Allows full viewing of the screen and full access to the lower buttons

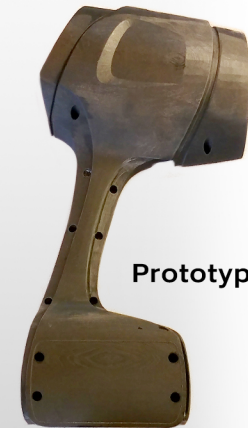
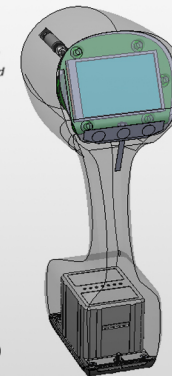


**User Studies**

**CAD**



**Foam Models**



**Prototypes**



**HELIX'S APPROACH:**

- Develop industrial design solutions to address appropriate family aesthetics, user experience, and mechanical assembly
- Create soft models and mock ups to test ergonomics and relative size
- Refine design and create 3D CAD geometry
- Utilize internal 3D printing capabilities to further test ergonomics, assembly and component fit
- Create multiple prototypes for field test, sales demos and tradeshow display
- Complete production design and document for release to tooling manufacturer

