ILC Dover Products

- Protective Equipment Garments
  - Space Suits
  - Chemical Protective Suits
  - Gas Masks
- Therapeutic Products
Digital Human Modeling

• Can be used to advance and streamline product design and development

• Accuracy and efficiency regarding issues relating to the physical interface with the human body
  – Product Performance
  – Fatigue
  – Fit & Comfort
  – Ergonomics
Digital Human Modeling Toolset

- ErgoMax – Ergonomic Digital Modeling Software
- CARD Labs CG Dataset Whole Body Survey
- 3D Studio Max – Modeling Environment Used For Both ErgoMax and CARD Labs Scans
Modeling Capabilities

• **ErgoMax**
  – Digital Model Creation Based on Anthropometric Biomechanical Databases
  – Human Model Skeletal Systems With 86 Interconnected Joints
  – Complex Animation and Analysis of Walking, Kneeling, and Squatting Movements
  – Human Models Interact With Objects Such As Masks, Helmets, and Other Equipment
  – Vision Assessment Analysis
Modeling Capabilities

• CARD Labs CG Dataset
  – Whole Body Surface Scans
  – 53 Subject Survey (Based on Variation In Stature)
  – 76 Landmarks Used In Scanning

• Import Compatibility For Scan Data Format Used In SAE Caesar Project
Design Applications

Laser Scanned Hand Model Used To Drive Design For Spacesuit Glove Bladder Dipform

Custom Sized Headform Models Used To Drive Design Of Gas Mask Test Equipment