Vision Engineering

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Vision Engineering Solutions

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Vision Engineering Solutions®

Our Mission

Vision Engineering provides state-of-the-art imaging and sensing solutions for aerospace, security and industrial applications.

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Imaging and Sensing Solutions

**Complete Sensing Solutions**
- Precision tracking gimbals
- Gimbal control systems
- Telescopes and optics
- Sensor design
- Data collection systems

**Data Collection and Analysis**
- Long range sensing
- Space objects
- Space launches
- Artillery and mortars
- Aircraft and UAVs

*If it moves, we can track it!*
Products and Services

- **Tracking Mounts**
  - Large transportable trackers
  - New or refurbishments
  - Direct drive motors
  - Precision encoders
  - Inertial stabilization

- **Control Software**
  - Digital servo system
  - Custom user interfaces
  - Manual and auto drive modes
  - Star calibrations
  - External designation inputs

- **Integrated Digital Video**
  - Custom video display SW
  - Real-time video enhancement
  - Integrated video tracking
  - Remote display capability

- **Laser Systems Support**
  - Coude paths
  - Integrated laser safety system
Products and Services

- **Imaging Sensors**
  - UV through LWIR
  - Polarimetric Sensors
  - Multi-spectral sensors

- **Non-imaging sensors**
  - Calibrated Radiometric sensors
  - Polarimetric
  - Spectral

- **Optical design and testing**
  - Lens and telescope design
  - Opto-mechanical systems
  - Testing and validation

- **Laser Systems**
  - Illuminators
  - Active imagers
  - Rangers, LADAR and LIDAR

- **Data Recording**
  - Real-time recording and display
  - Digital video image tracking
  - Embedded meta-data

Sensor and Data Recording System
Products and Services

Data Collection and Analysis Services

- **Image Data**
  - UV through LWIR
  - Polarimetric
  - Multi-spectral
  - Radiometrically calibrated
  - Image metrics
  - Thermal Imagery

- **Non-imaging Sensor Data**
  - High-speed radiometers
  - Calibrated radiometry
  - Atmospheric characterization

- **Laser Data**
  - Laser illumination
  - High Energy Lasers (HEL) negations
  - Doppler LADAR, LIDAR, ranging

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Products and Services

- **High-Fidelity Electro-Optical Modeling and Simulation**
  - Physically rigorous
  - Radiometrically accurate
  - Experimentally Validated
  - Real-time

- **Target Modeling**
  - 6-DOF dynamics
  - Materials, BRDFs and BEDFs
  - Complex Shapes

- **Sensor Systems**
  - Laser sensors and illuminators
  - UV through LWIR imaging
  - Polarimetric Sensors

- **Atmospheric Effects**
  - Turbulence
  - Extinction

Advanced Imaging and Sensing Modeling and Simulation
Data Collection and Analysis
Pointing and Tracking Systems

Modeling and Simulation Services

Laser Illuminated Mortar Simulation
Real
Simulated