Brief Overview of Imager

- What is it going to look Like?
- Statistics:
 - Exterior Dimensions
 - Mass Properties
- Main Components
- Optics
- Mechanical Structure
- Shutter
- Dewar
- Exterior Heat Output
- Power Requirements

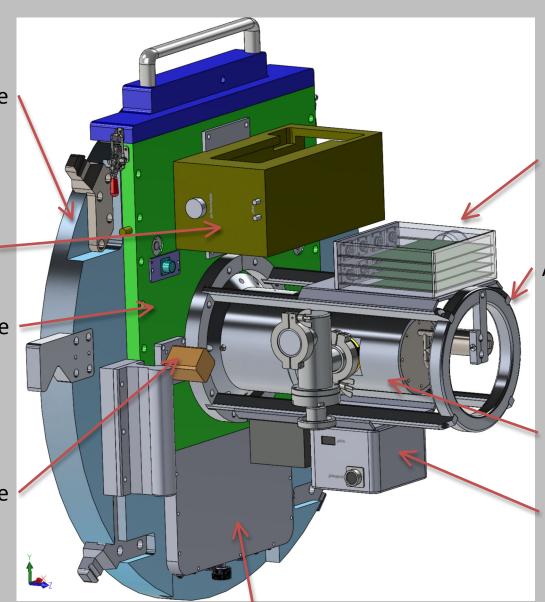
What is it Going to Look Like?

NA2 Mounting Plate

CCD Controller

Structure Back Plate

Filter Wheel Drive



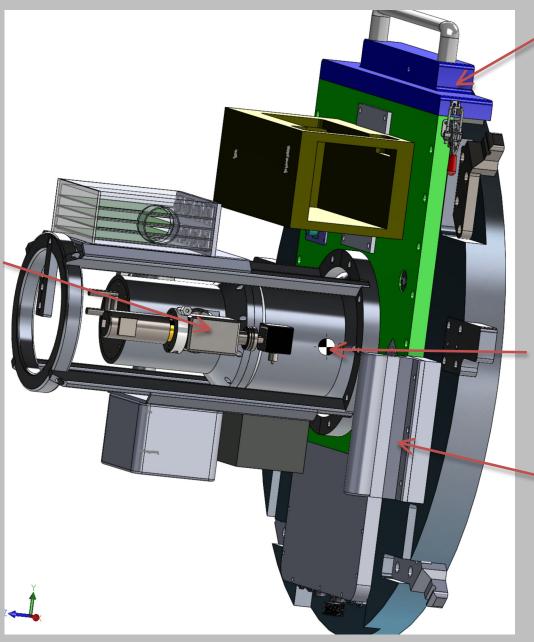
Electronics Chassis

Accessories Structure

Dewar

CCD Power Supply

Shutter Cover



Vacuum Telemetry

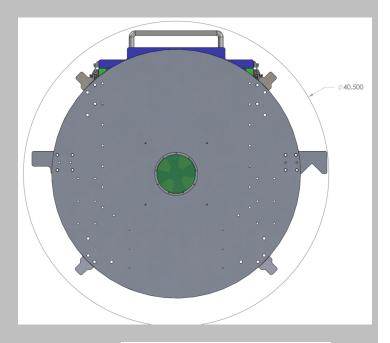
Filter Wheel Cover

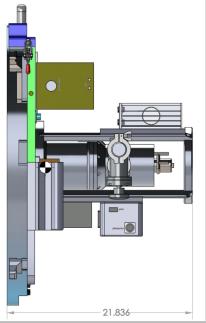
Center of Gravity

Instrument Cart Pickup Point

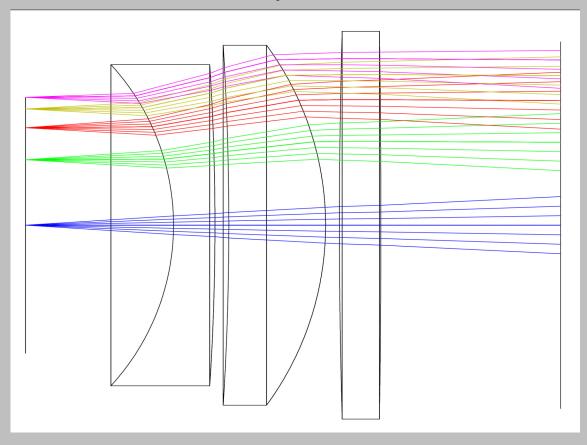
Statistics

- Exterior Dimensions
 - Outer radial envelope = 20.25"
 - Length = 21.836"
- Center of Mass
 - (0,0,0) is the front mounting port along the optical axis
 - Checkered ball in lower image
 - X = 0.07, Y = -0.31, Z = 4.55
 - Counterweight on lower section of instrument
- Mass = 252lbs (114Kg) w/accessories





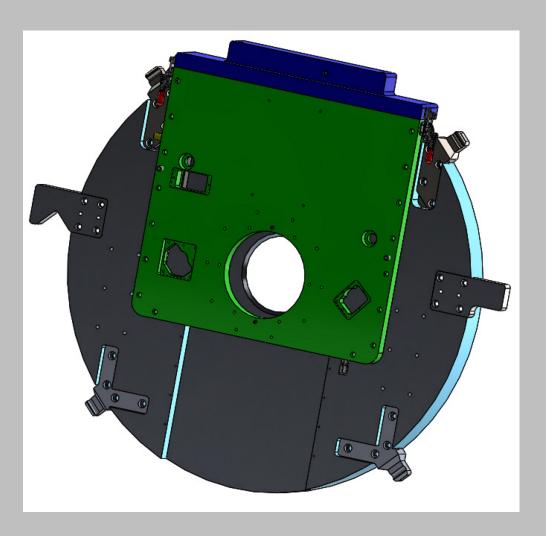
Optics



- Three piece focal reducer
- f/10.3 -> f/8.0

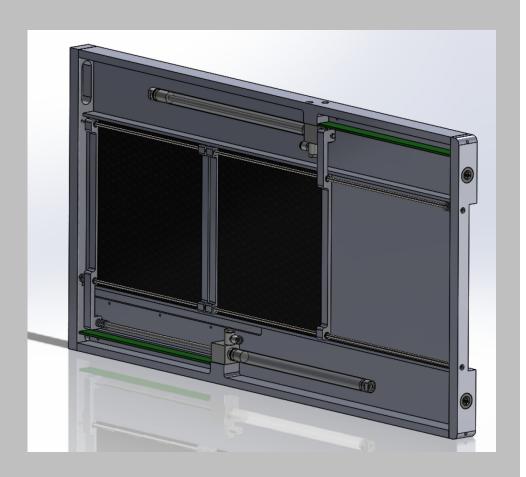
Mechanical Structure

- Two piece main structure
- Compact design
- Externally accessible components
- Filter Wheel Access



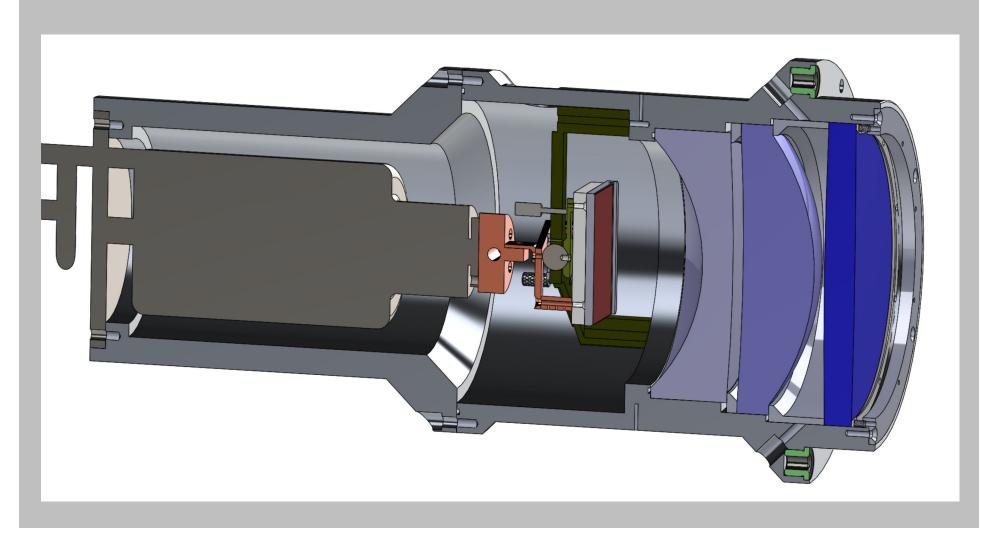
Shutter

- Pneumatic Driven
- 5.25" clear Aperture
- Photometric Accuracies
- Positional Feedback



Dewar

- Custom Design for minimal vacuum volume
- Two piece dewar housing
- Integral optics stack



Ancillary Equipment Heat Output & Power Requirements

- CCD Controller
 - Supply = ccd power supply
- CCD Power Supply
 - Supply =120VAC
 - Heat Output = 20 Watt
- PC104
 - Supply = 5VDC
 - Heat Output = 13 Watt (model dependent, maximum)
- Shutter Solenoid
 - Supply = 12V
 - Heat Output = 0.5 Watt
- Filter Wheel Solenoid
 - Supply = 12V
 - Heat Output = 8 Watt (transient)
- Total = 33.5 Watt (steady), 41.5 Watt (maximum)