

Optimizing the Performance of X-Ray Optics for MaGIXS

Nitika Yadlapalli *Rutgers University*

Edward Hertz *Smithsonian Astrophysical
Observatory*

Peter Cheimets *Smithsonian Astrophysical
Observatory*

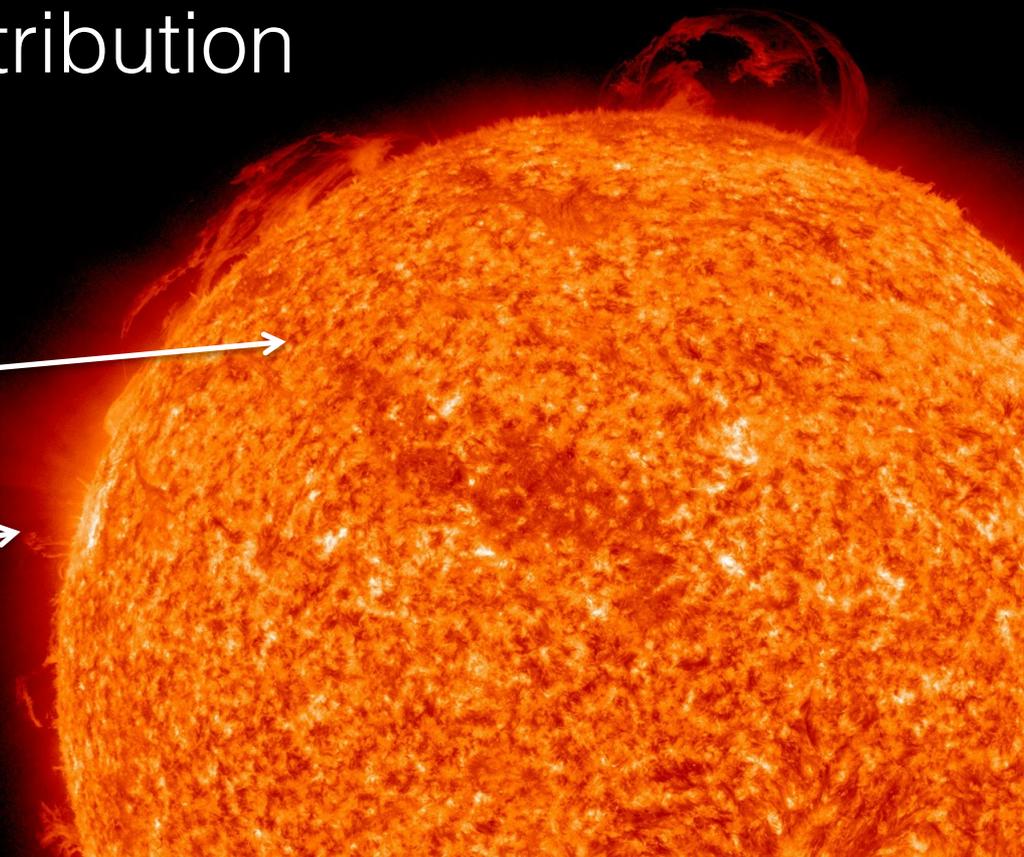
Marshall
Grazing
Incidence
X-Ray
Spectrometer

Science Goals

Better understand coronal heating
by studying variation in plasma
temperature and distribution

Surface
~6000 K

Corona
~ 10^6 K



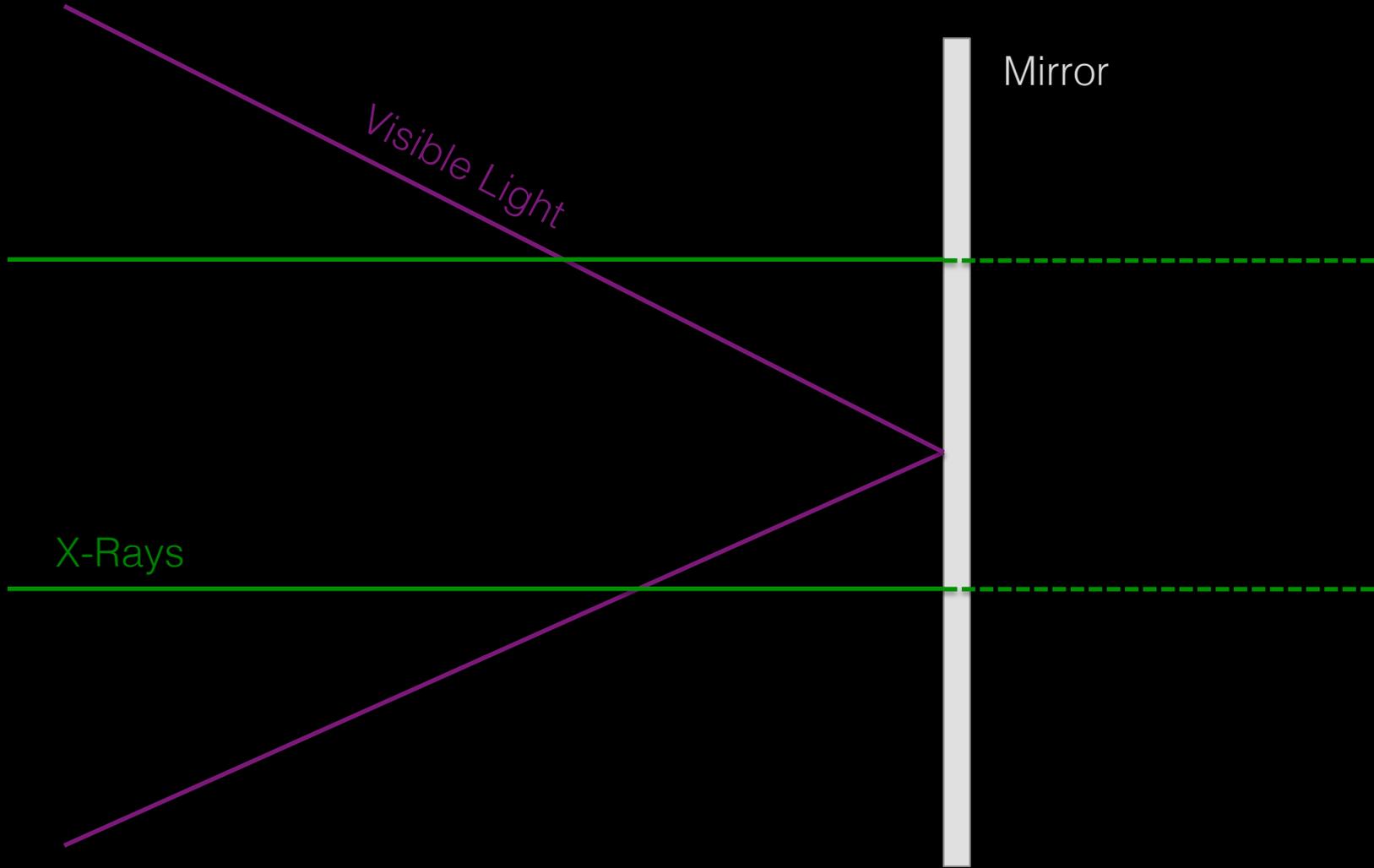
Marshall

Grazing

Incidence

X-Ray

Spectrometer

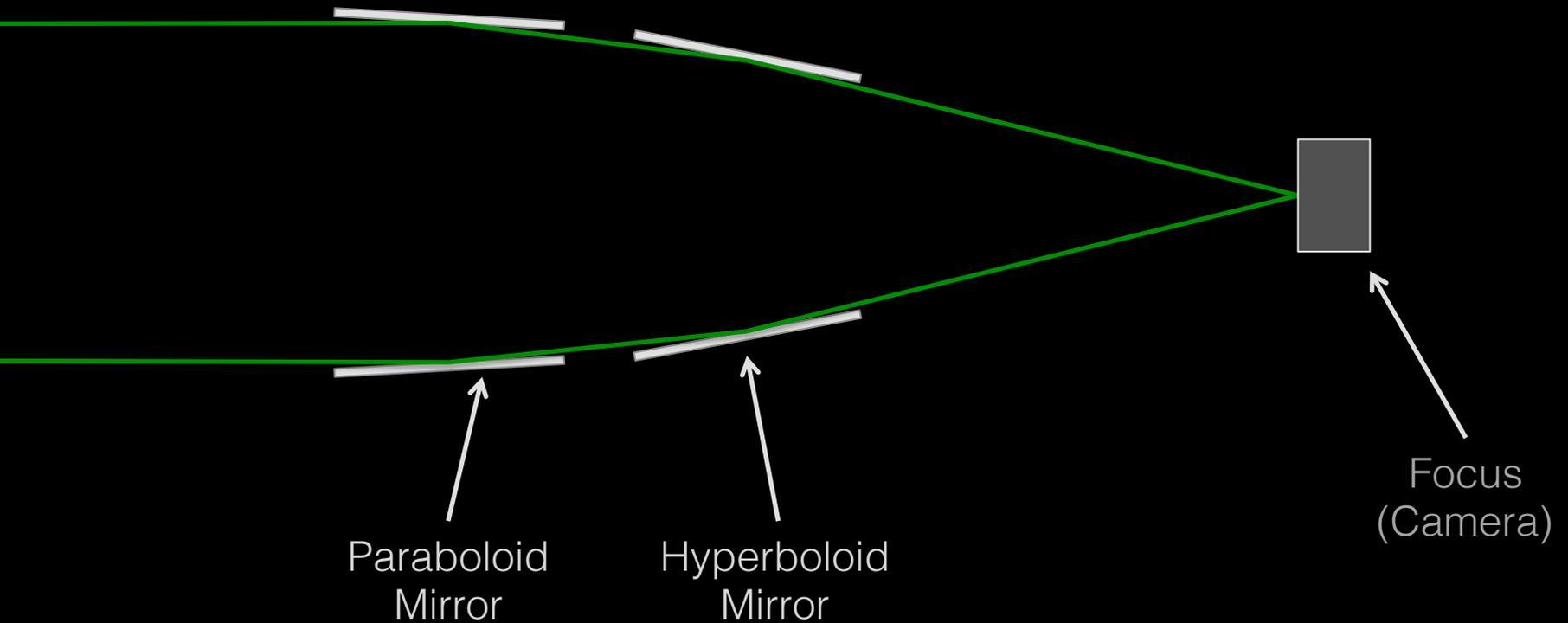


Mirror

Visible Light

X-Rays

Wolter Telescope Type 1



Marshall

Grazing

Incidence

X-Ray

Spectrometer

First X-Ray Imaging Spectrometer To Observe Sun! (since 1989)

6 – 24 Å

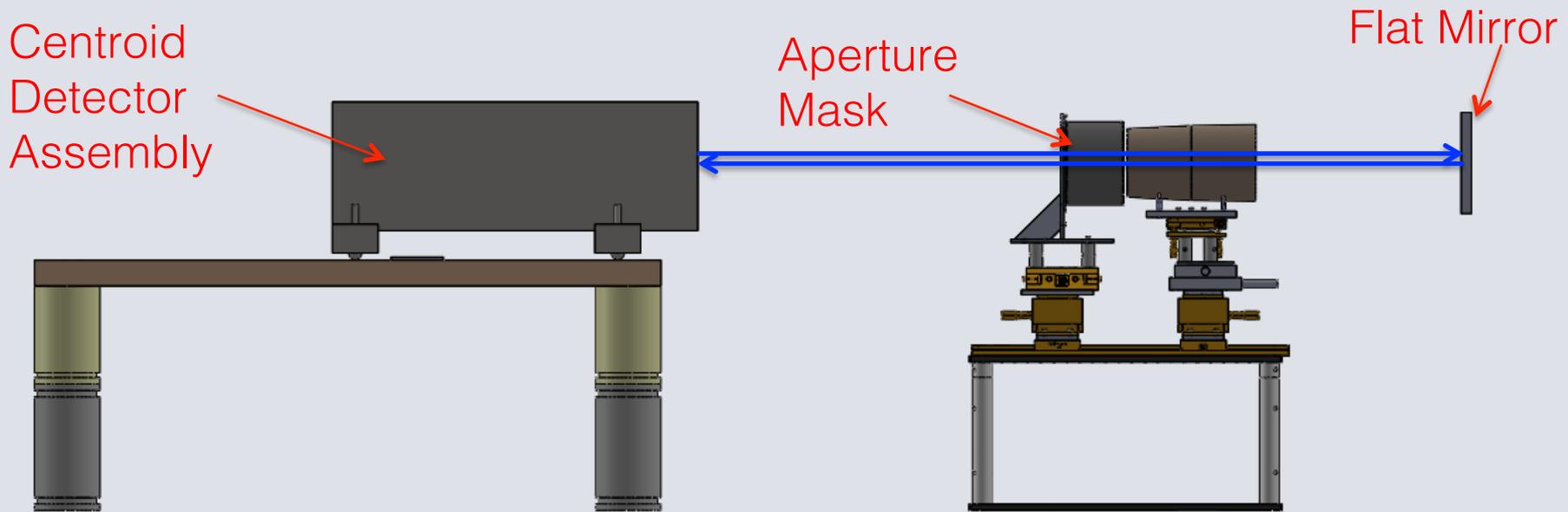
6" spatial resolution

0.1 Å

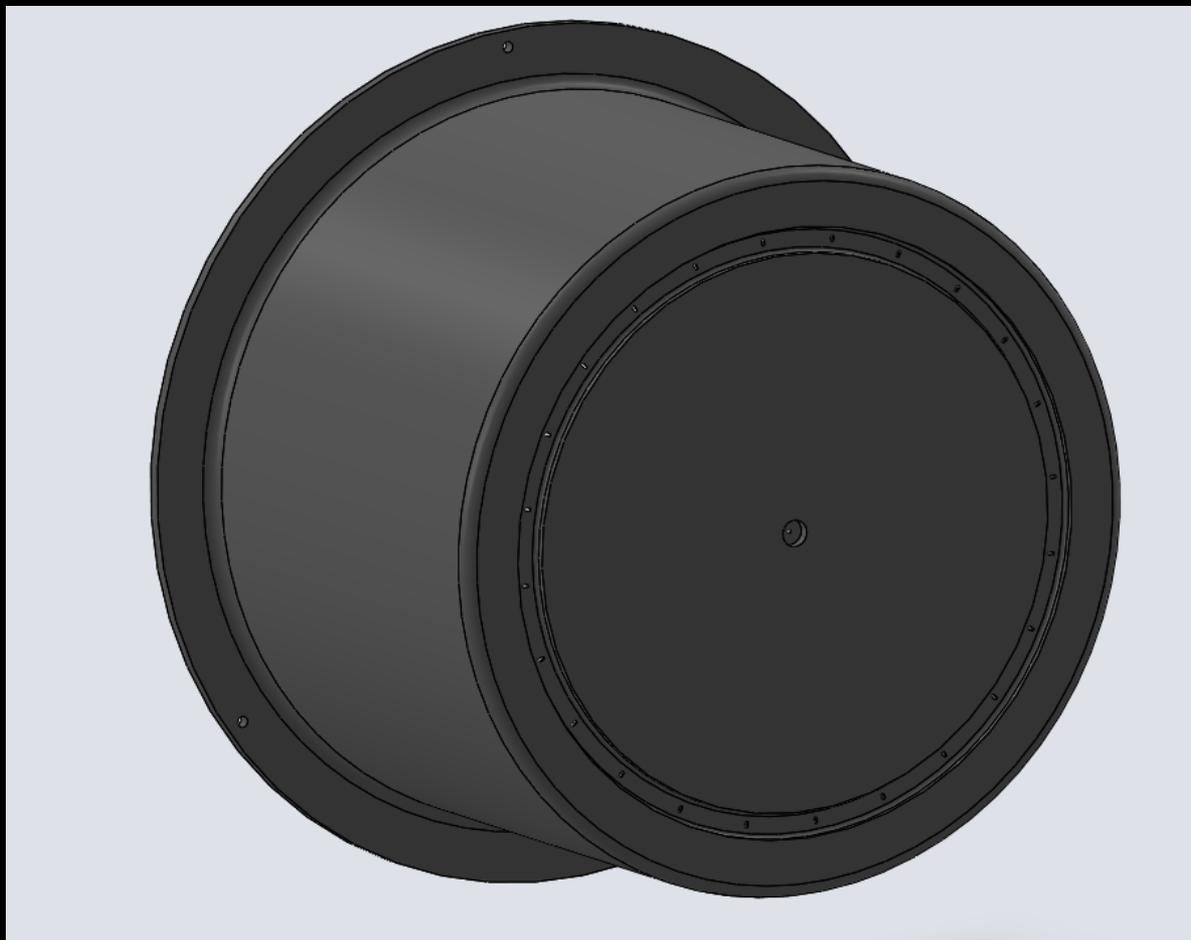
5 second cadence

Summer Goal

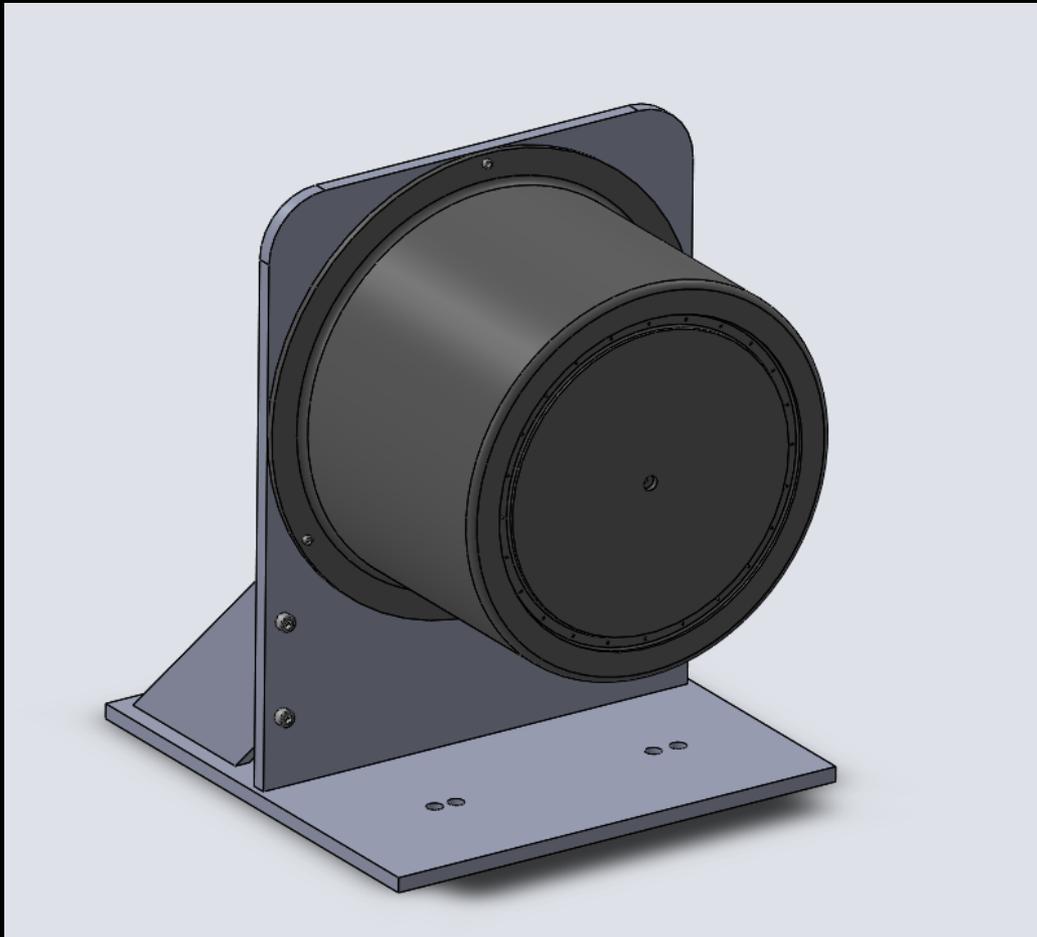
Design setup to be used for focal length measurement of mirrors



Aperture Mask

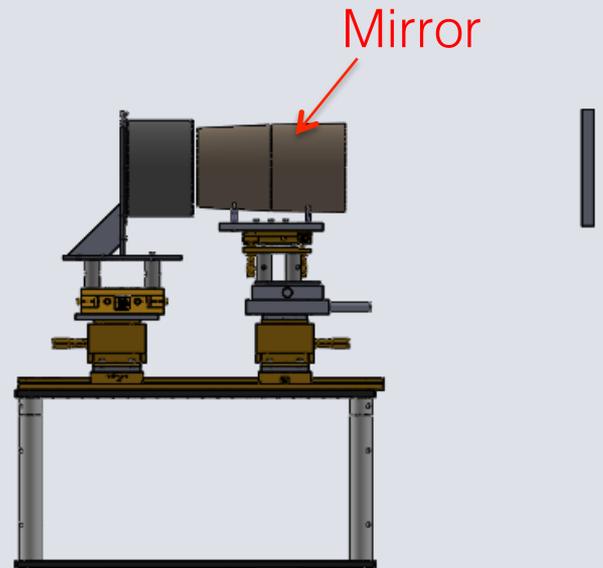
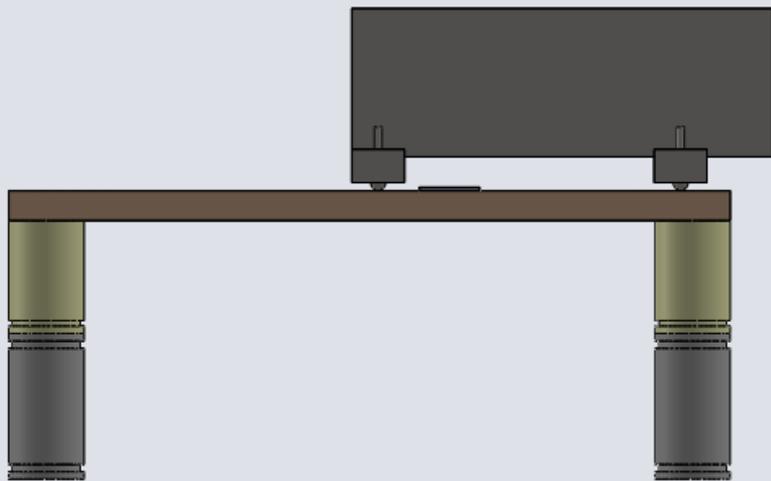


Aperture Mask

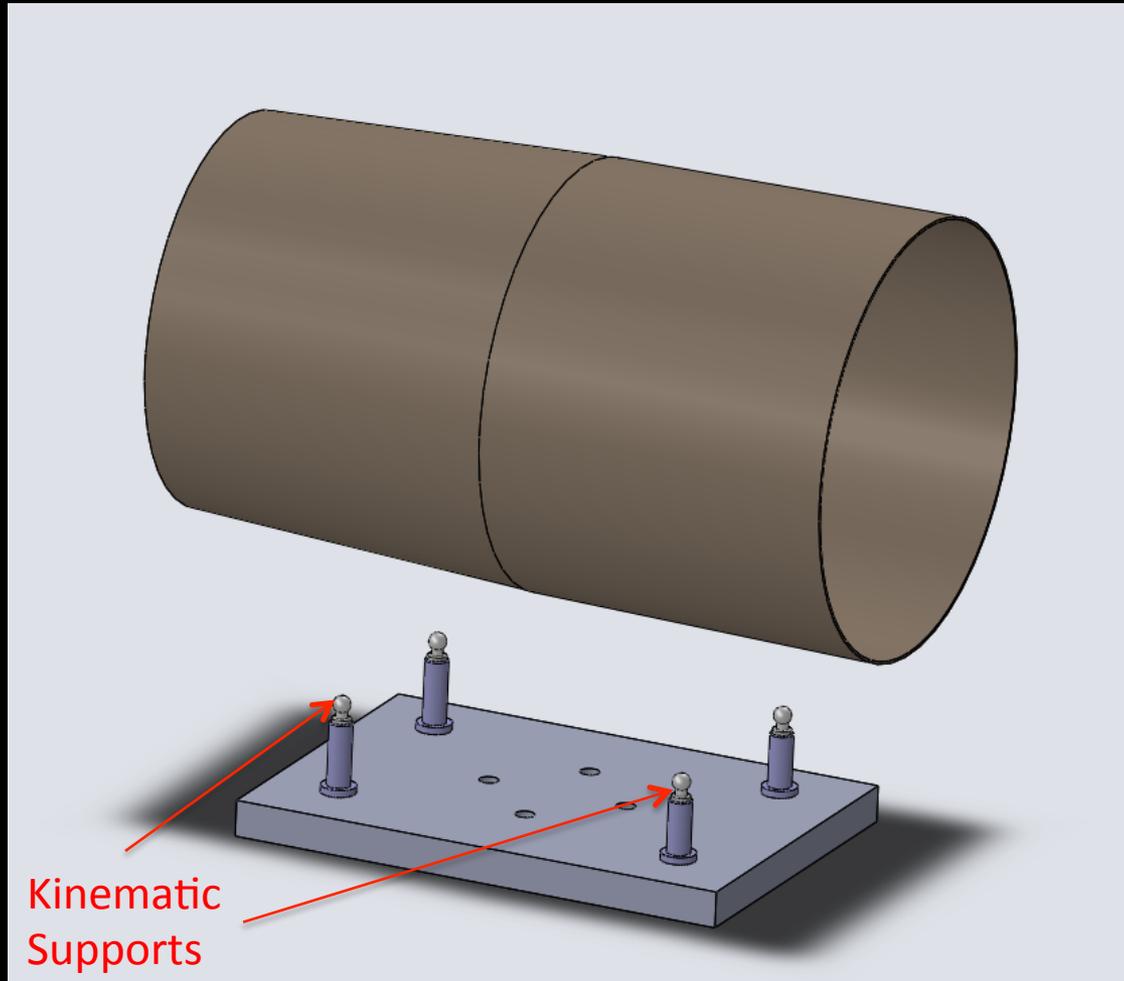


Summer Goal

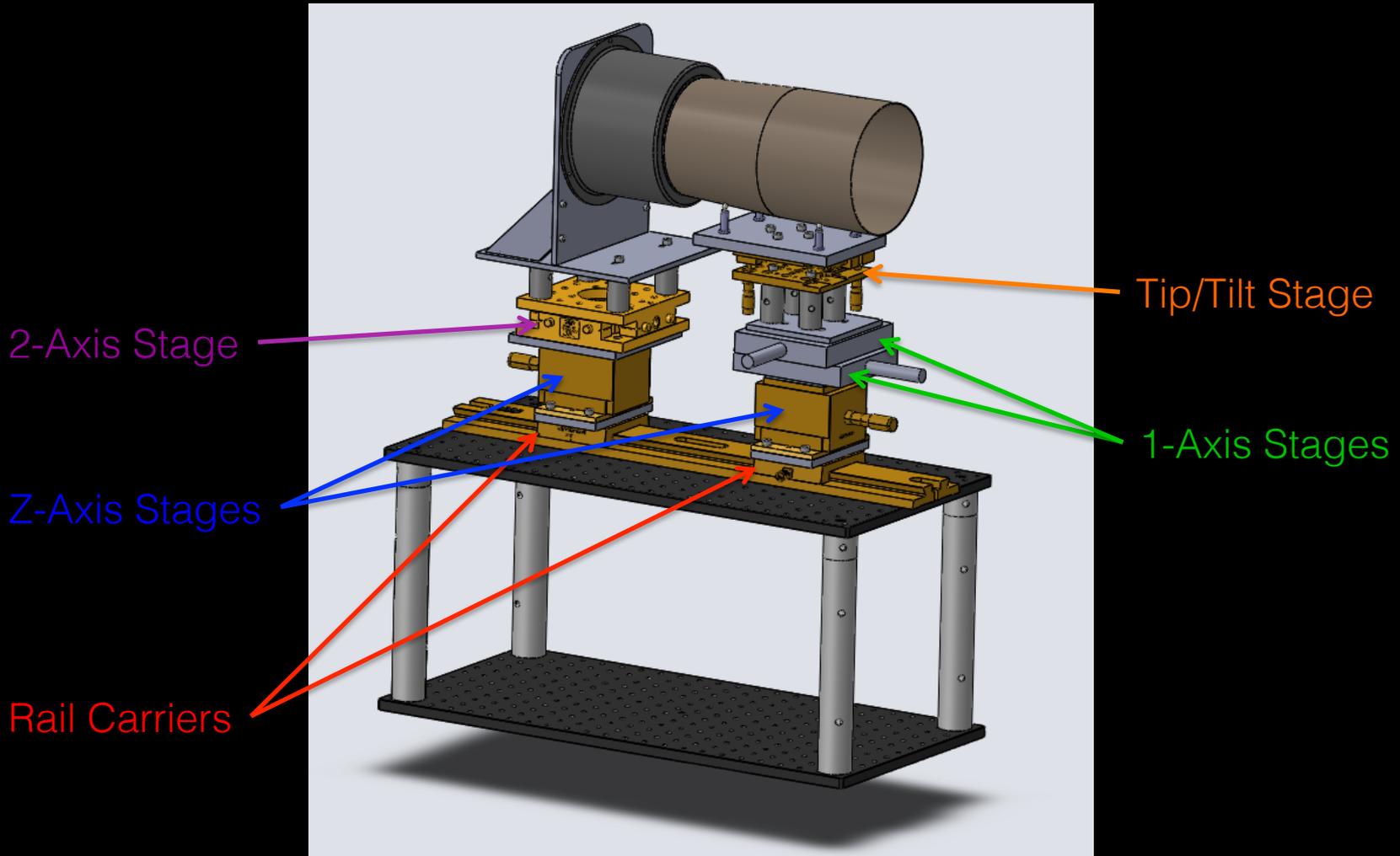
Design setup to be used for focal length measurement of mirrors



Mirror Mount



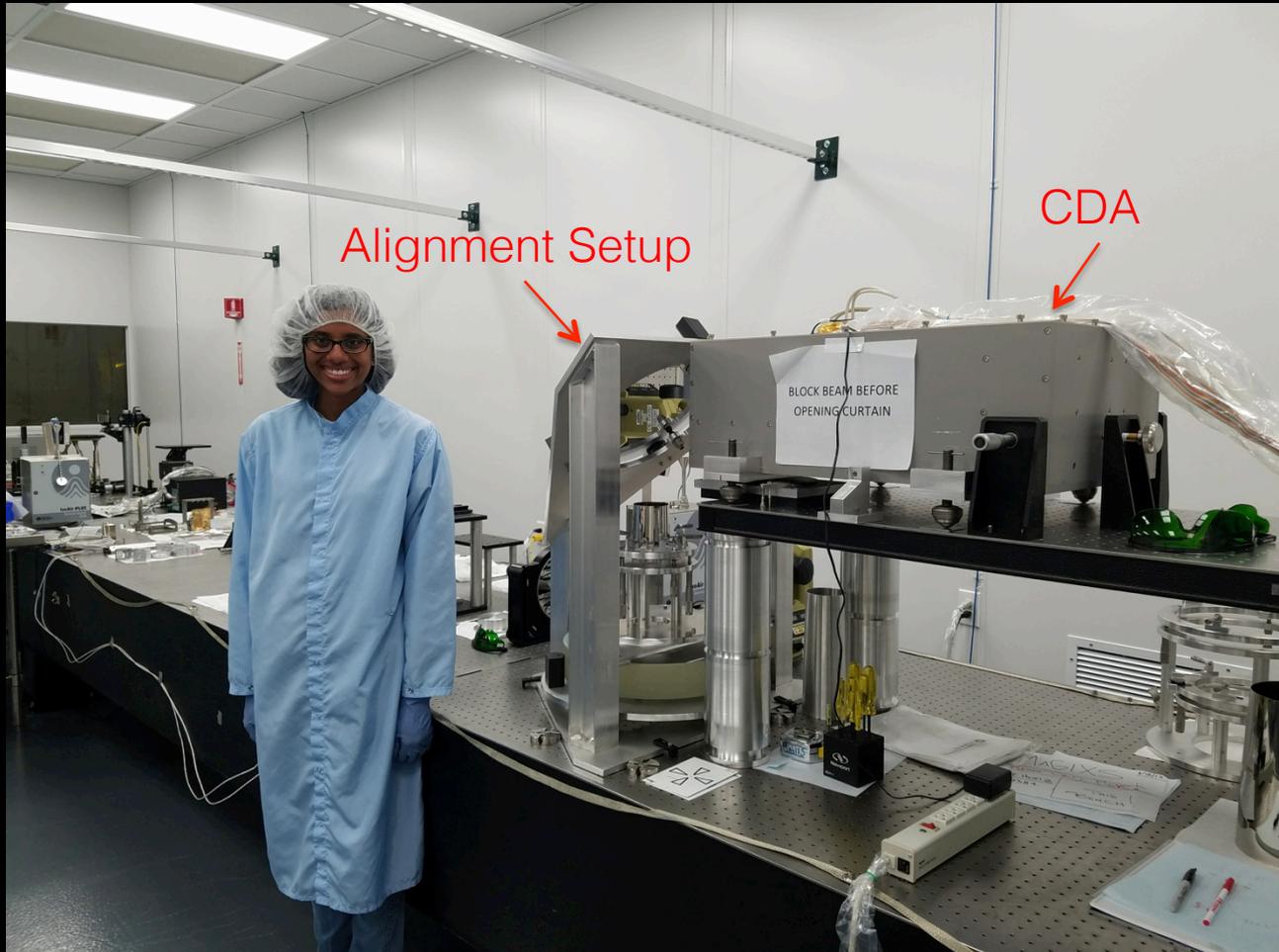
Degrees of Motion



In The Lab



In The Lab



Future Work

Carry out focal length measurements

Align all optical elements

End goal: launch on sounding rocket!

Acknowledgements

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