

CHIRON:

Temperature sensing,
CCD and grating locations,
and sealing

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CHIRON CAD Model: Orientation Slide

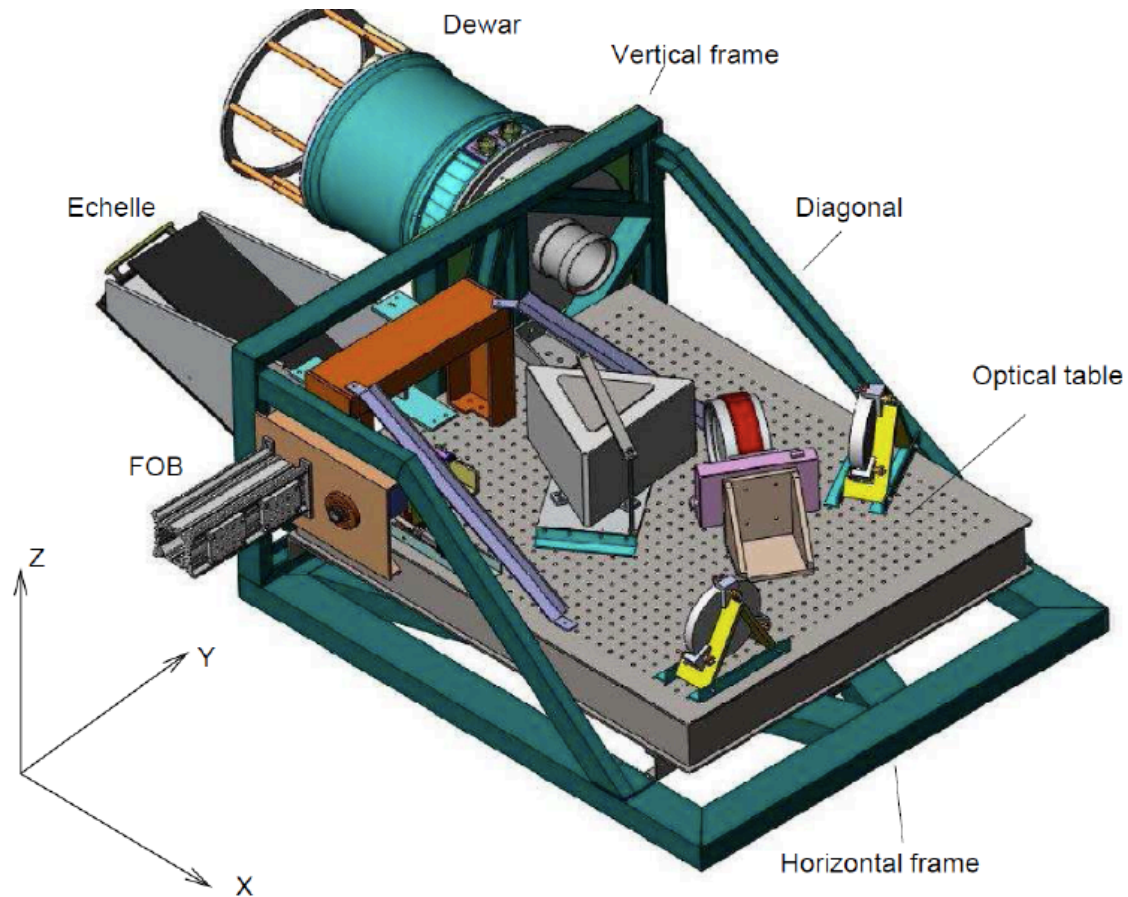
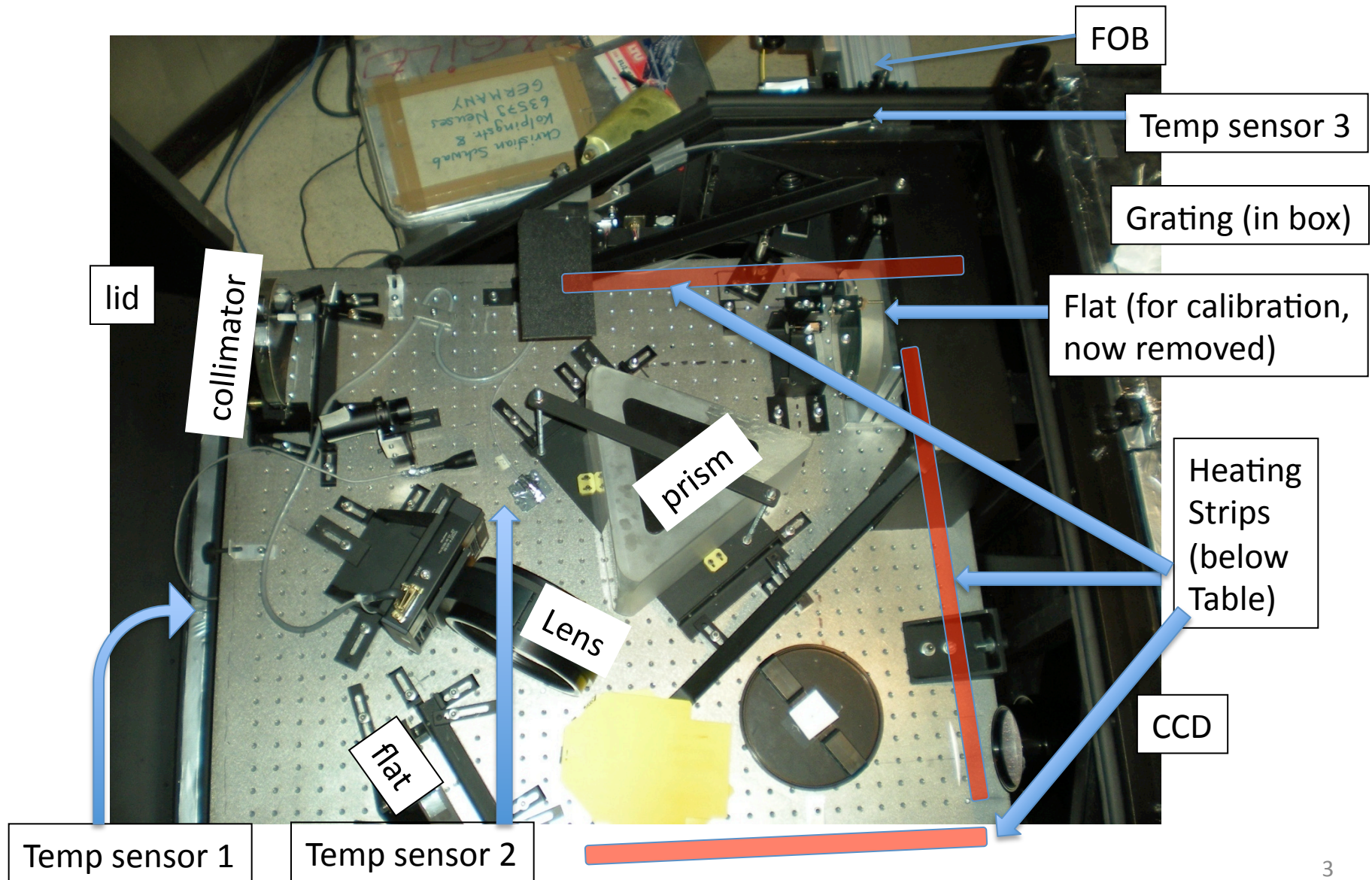


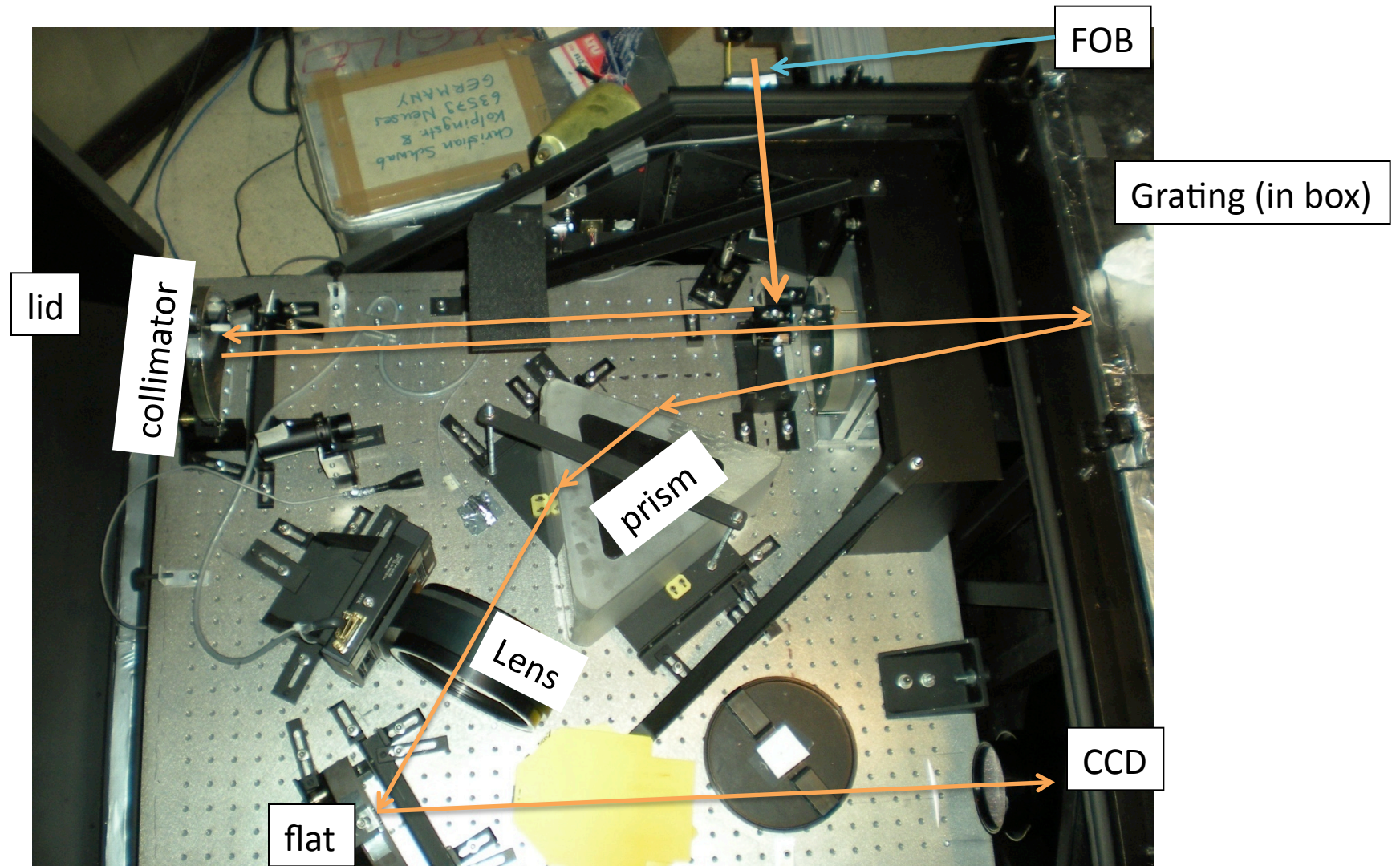
Figure 6. CAD drawing of the whole assembly. In the centre, the optical breadboard on which the components are mounted. The breadboard is attached at three points to the structure made from welded steel. The camera dewar also interfaces to this structure. The whole assembly will be boxed by insulating, airtight panels mounted to the steel frames.

from Schwab *et. al*, 2010

CHIRON: Overhead View

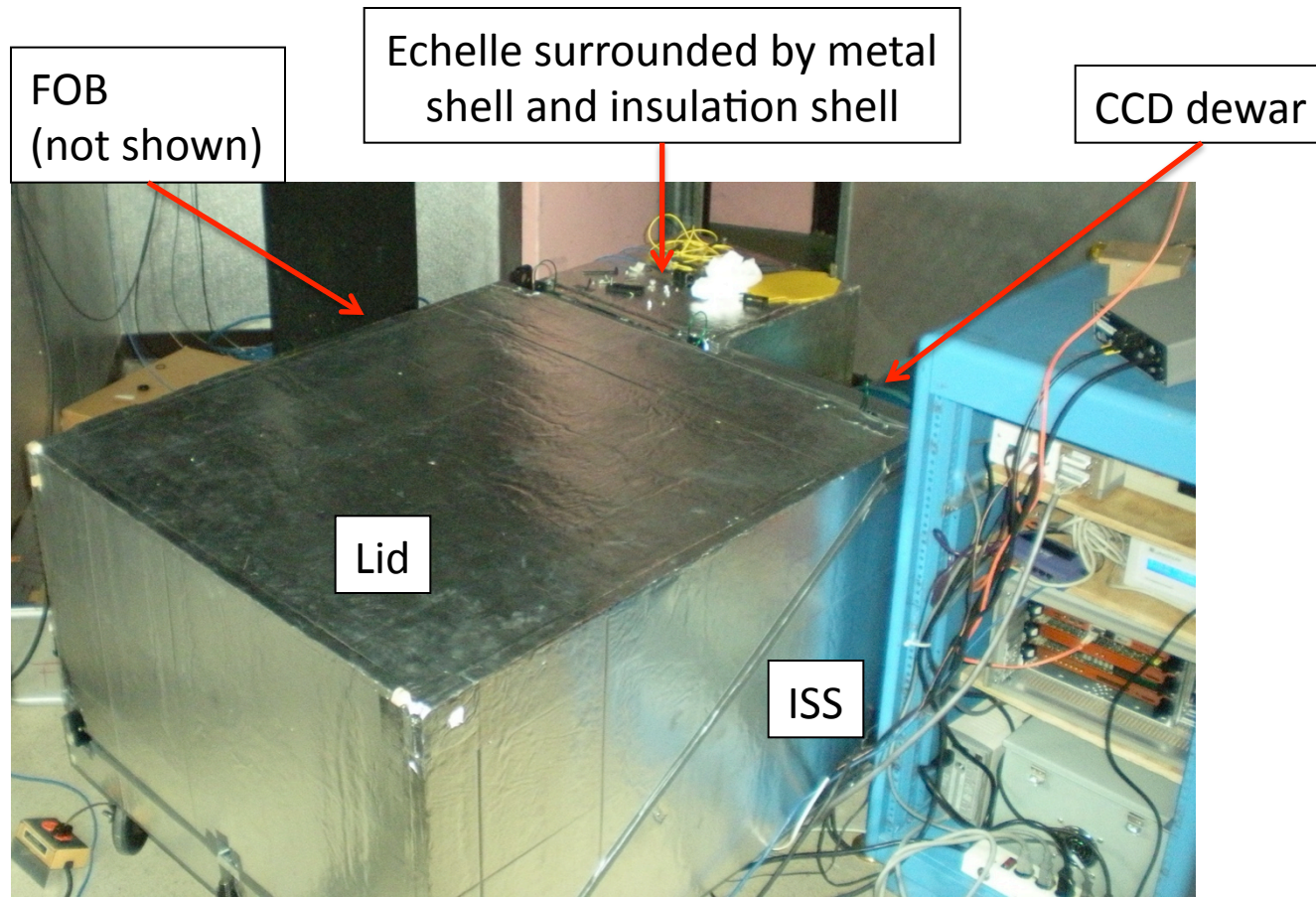


CHIRON: Light Path

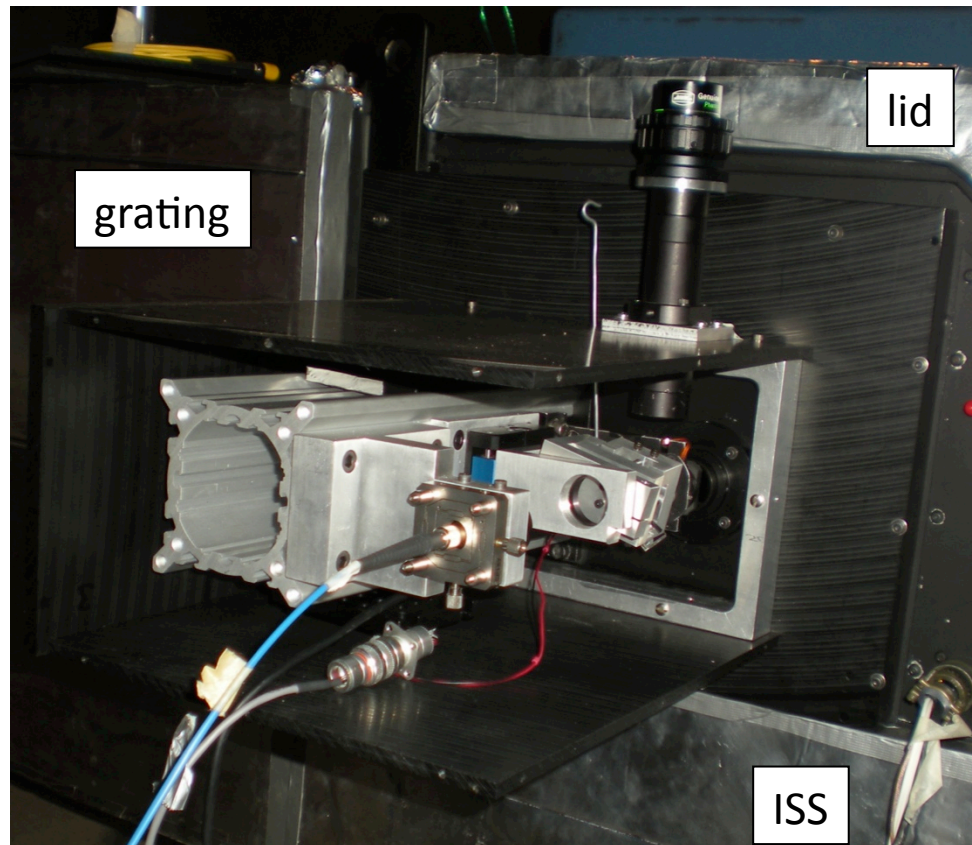


Light path shown in orange.

CHIRON: Lid Closed



FOB



FOB (soon-to-be) sealed in light-tight enclosure and thermal insulation

Room Temperature Sensor



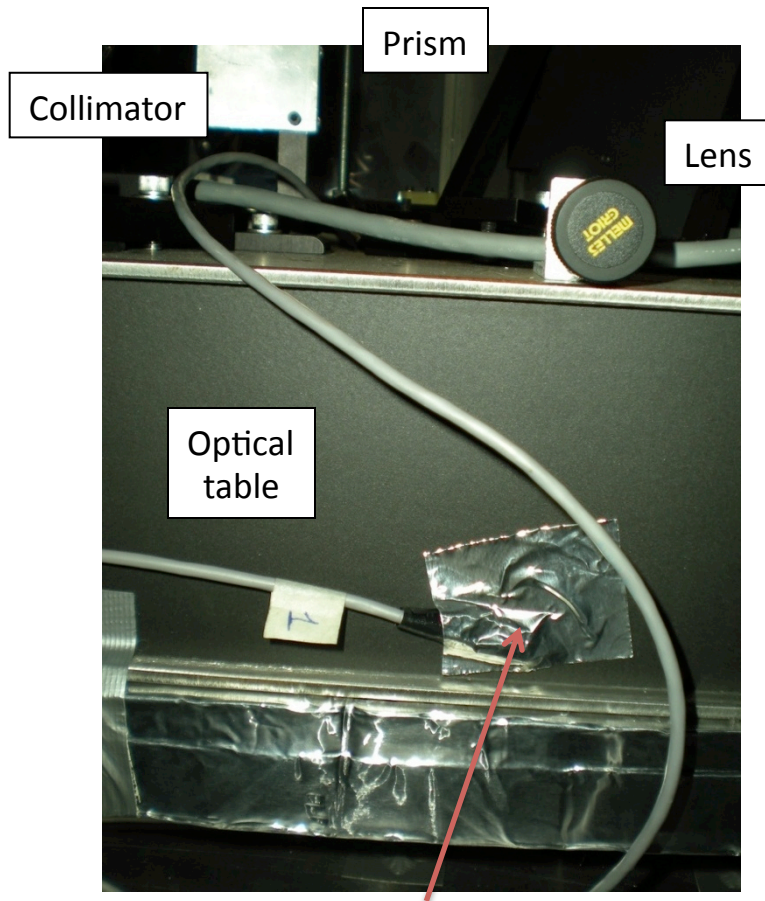
Temperature sensor for room

FITS file keyword: **TEMPROOM**



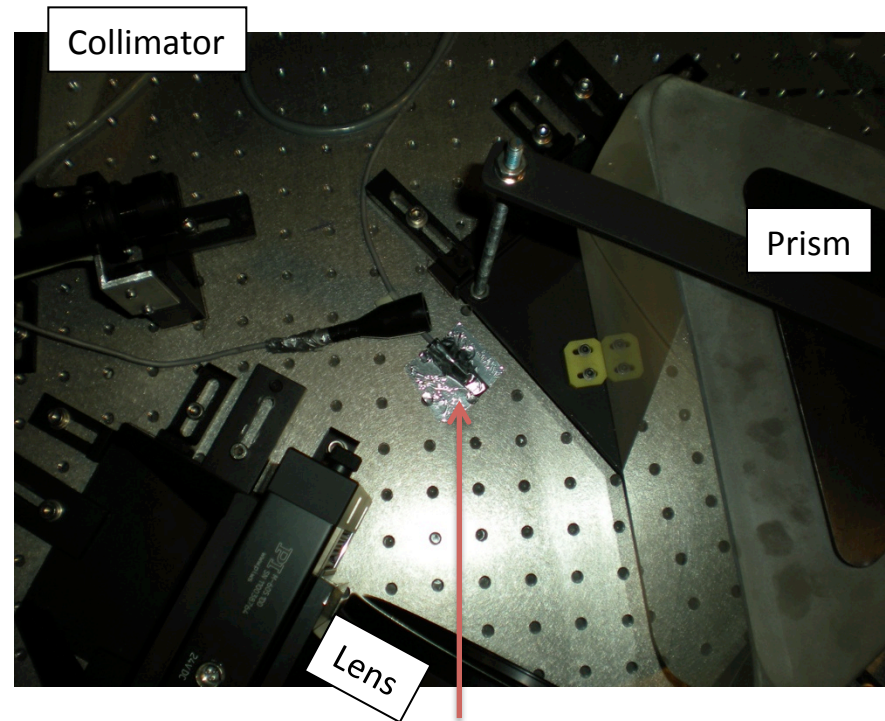
Close-up view

Inner Temperature Sensors



Temp sensor 1

FITS file keyword: **TEMPTLOW**

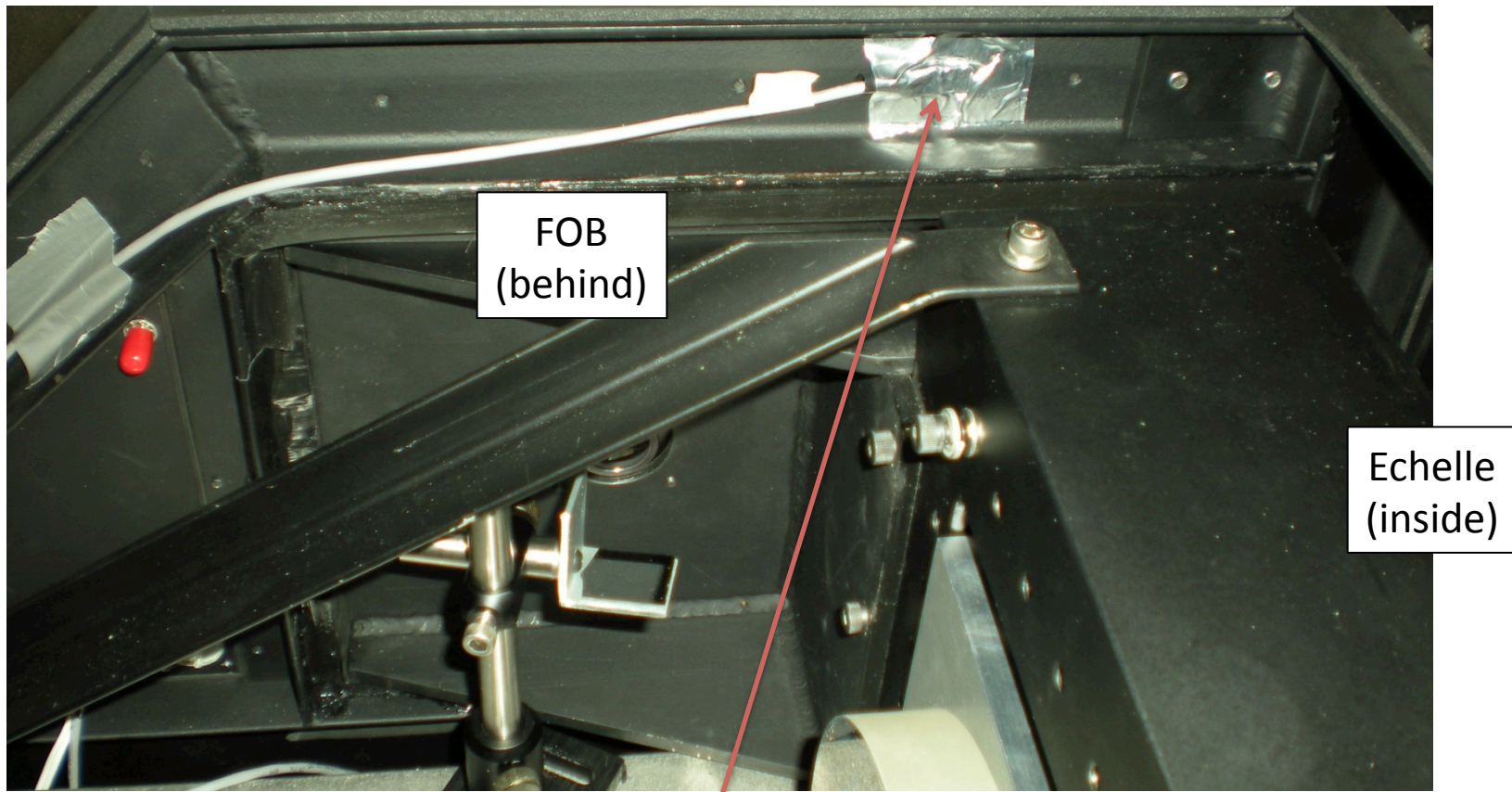


Temp sensor 2

FITS file keyword: **TEMPTCEN**

[Refer to "CHIRON: Overhead View," page 3, for relative location].

Inner Temperature Sensor (cont.)

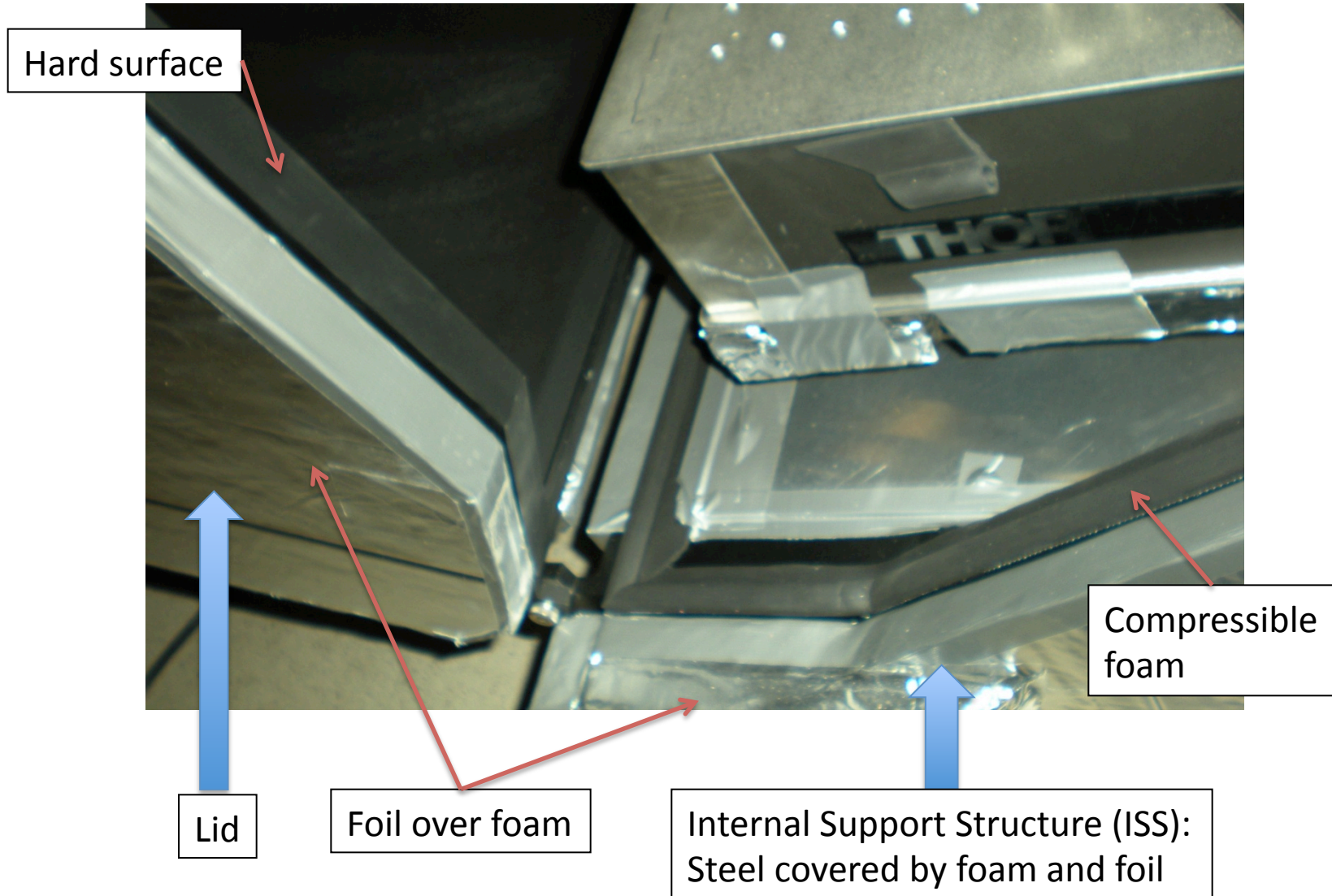


Temp sensor 3

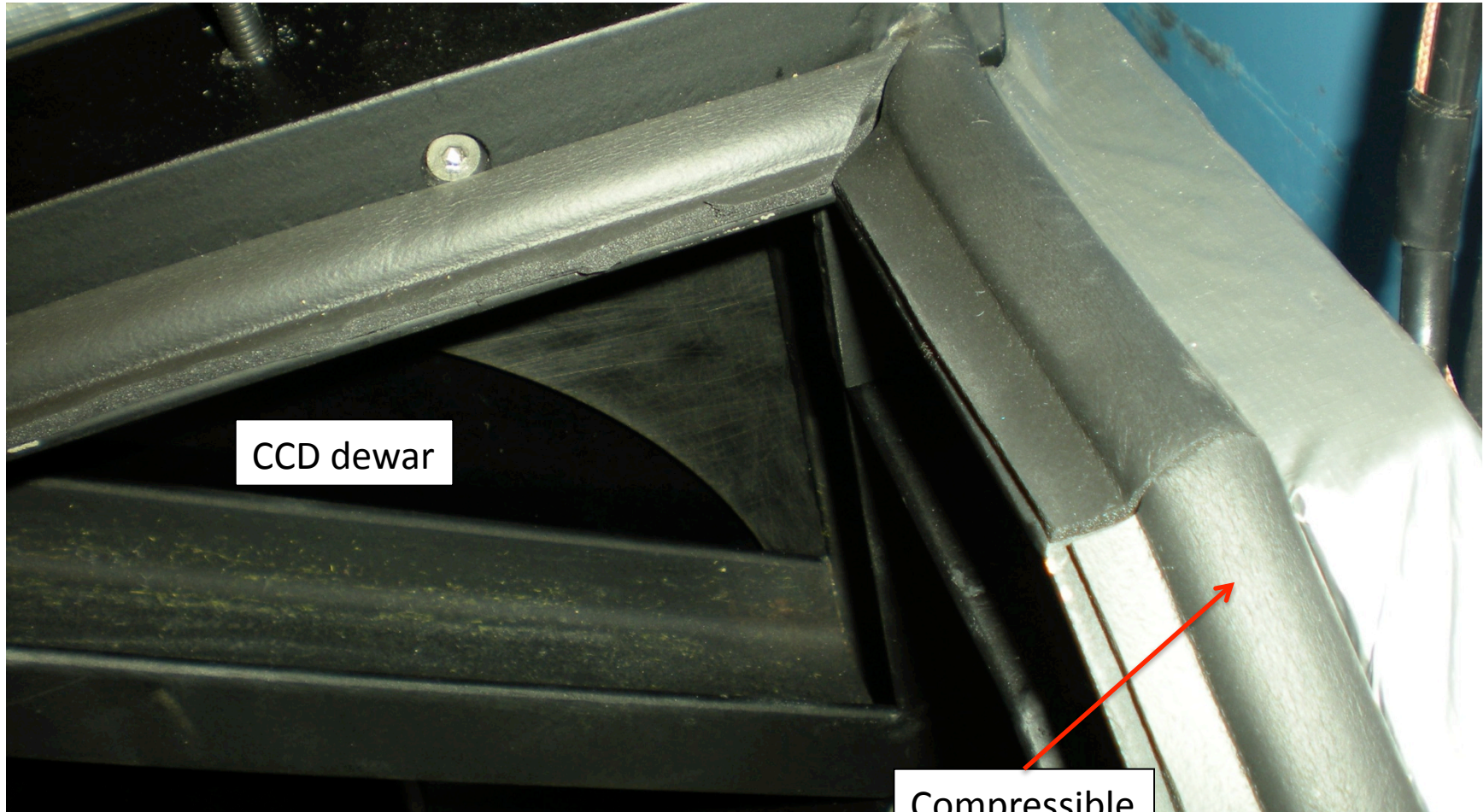
FITS file keyword: TEMPSTRU

[Refer to "CHIRON: Overhead View," page 3, for relative location].

Foam Padding Seals



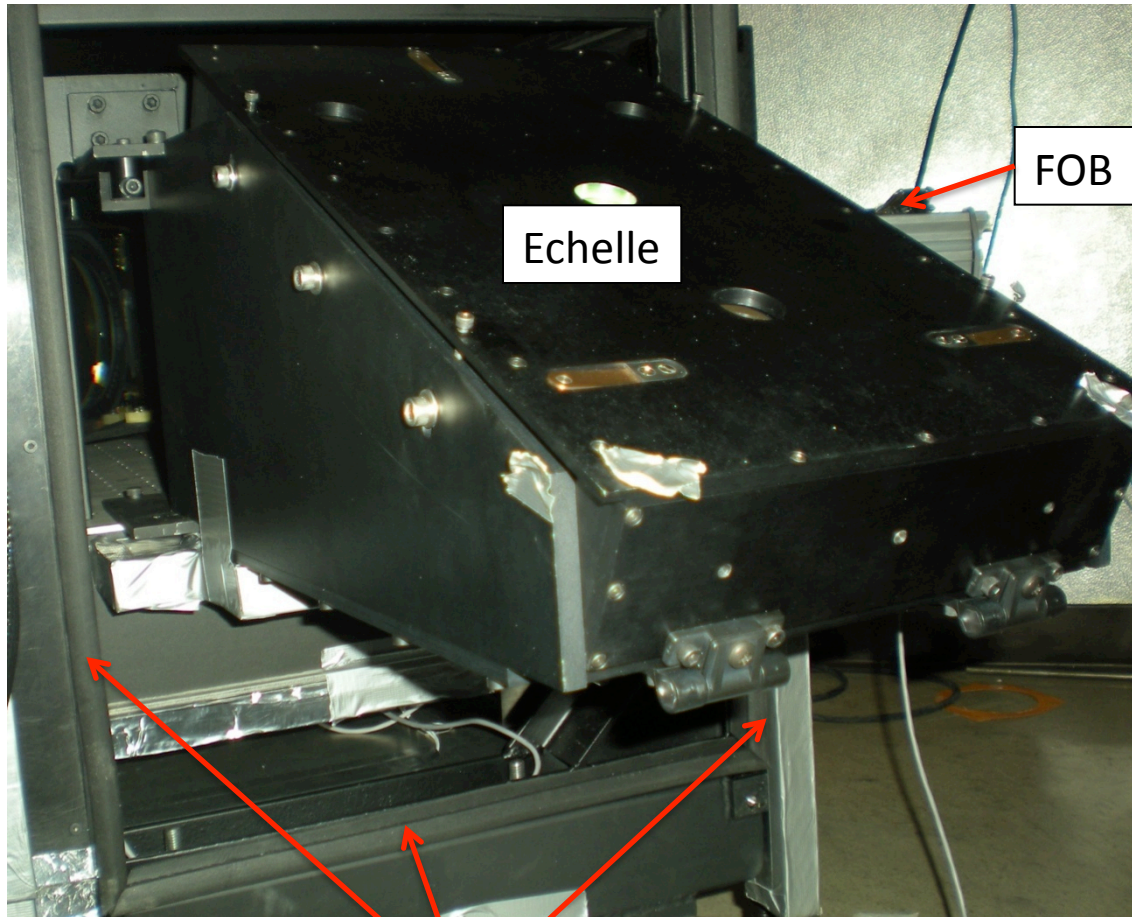
Foam Seal at Top of Base



CCD dewar

Compressible
foam

Air-tight Seal under Grating Cover



Echelle

FOB

Seal (same as seal between ISS and lid)

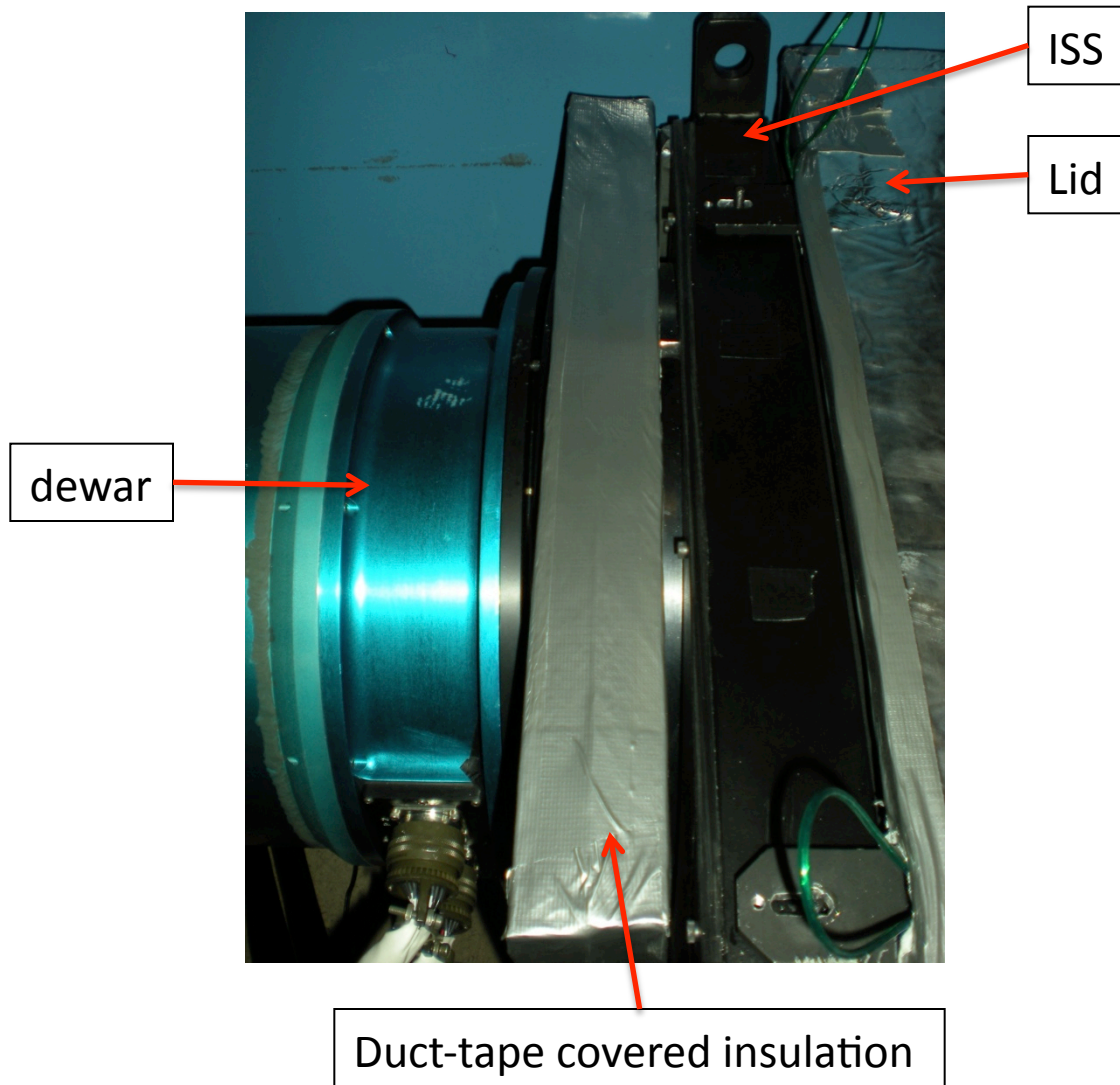


Close-up view of seal

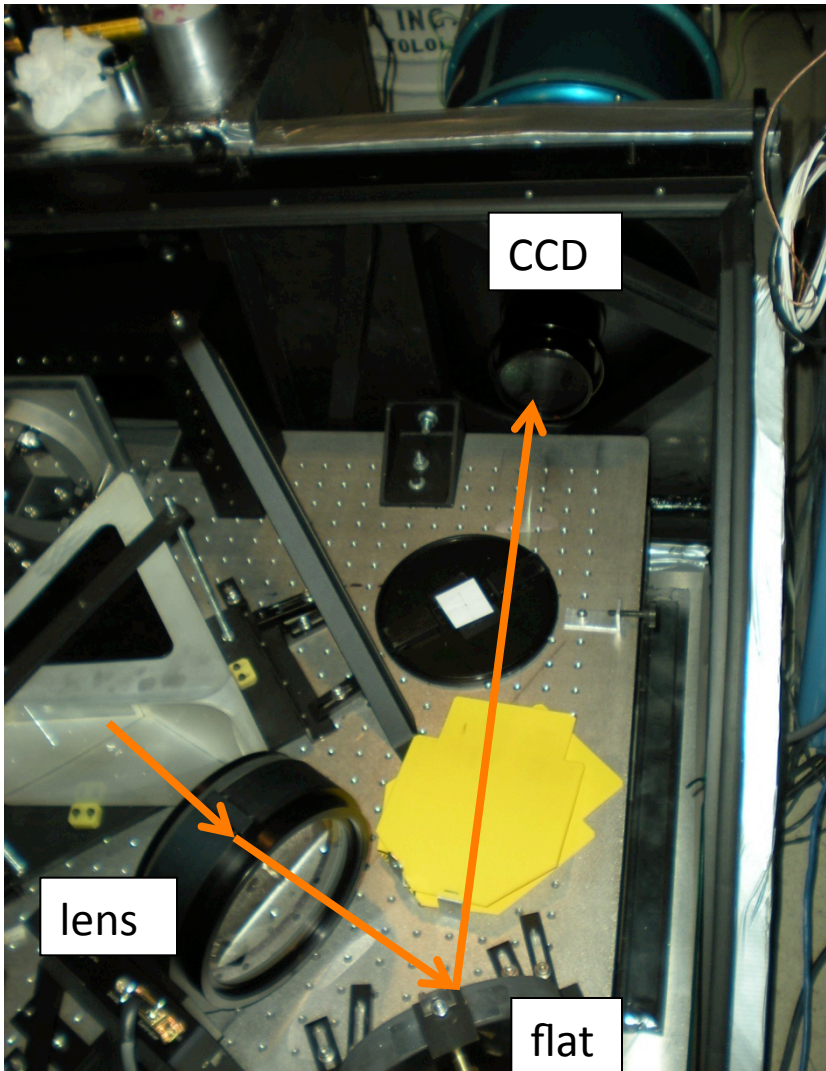


Steel cover mounted around grating onto seal

CCD Dewar Seal



CCD Lineup

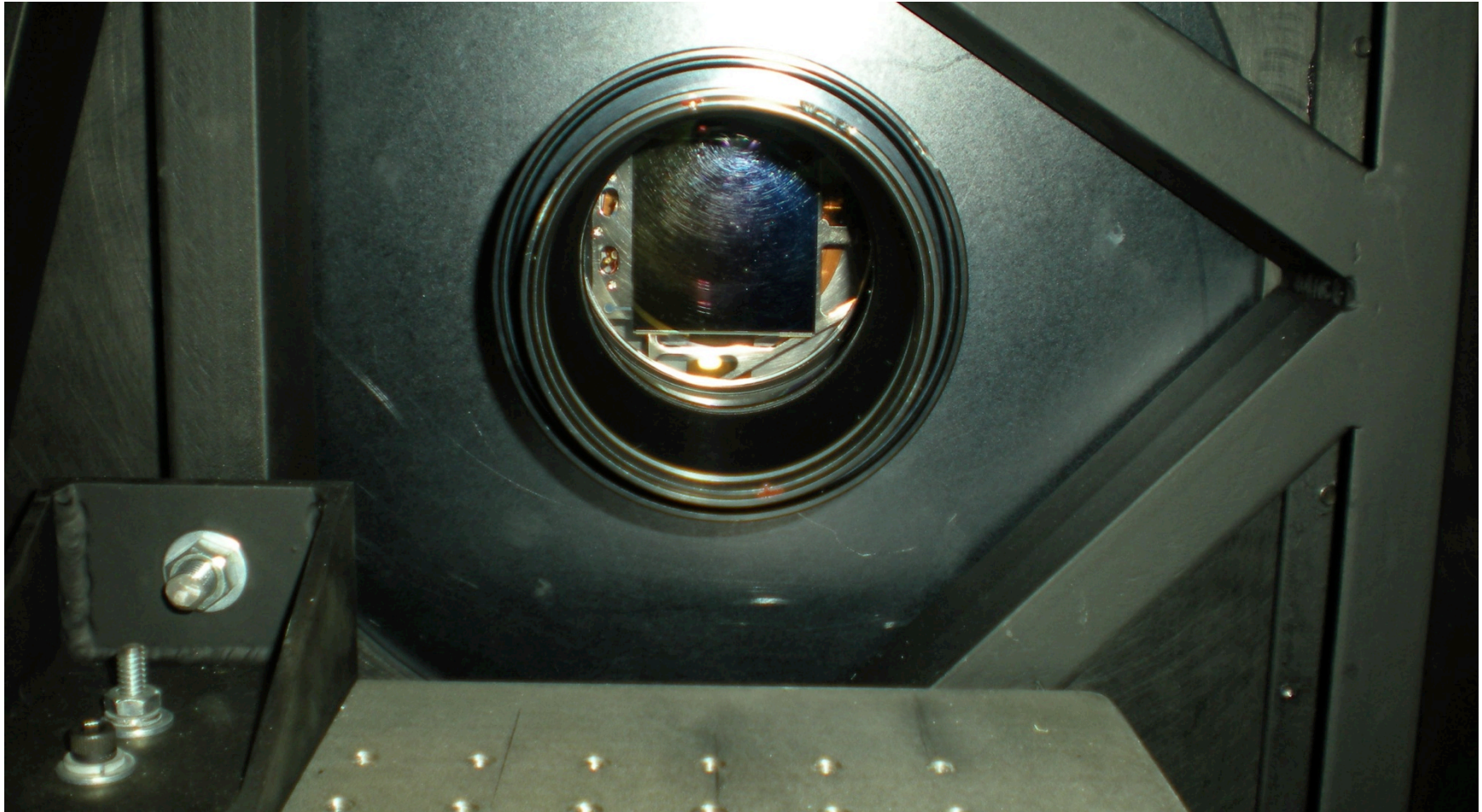


Looking out into dewar (light path in orange)

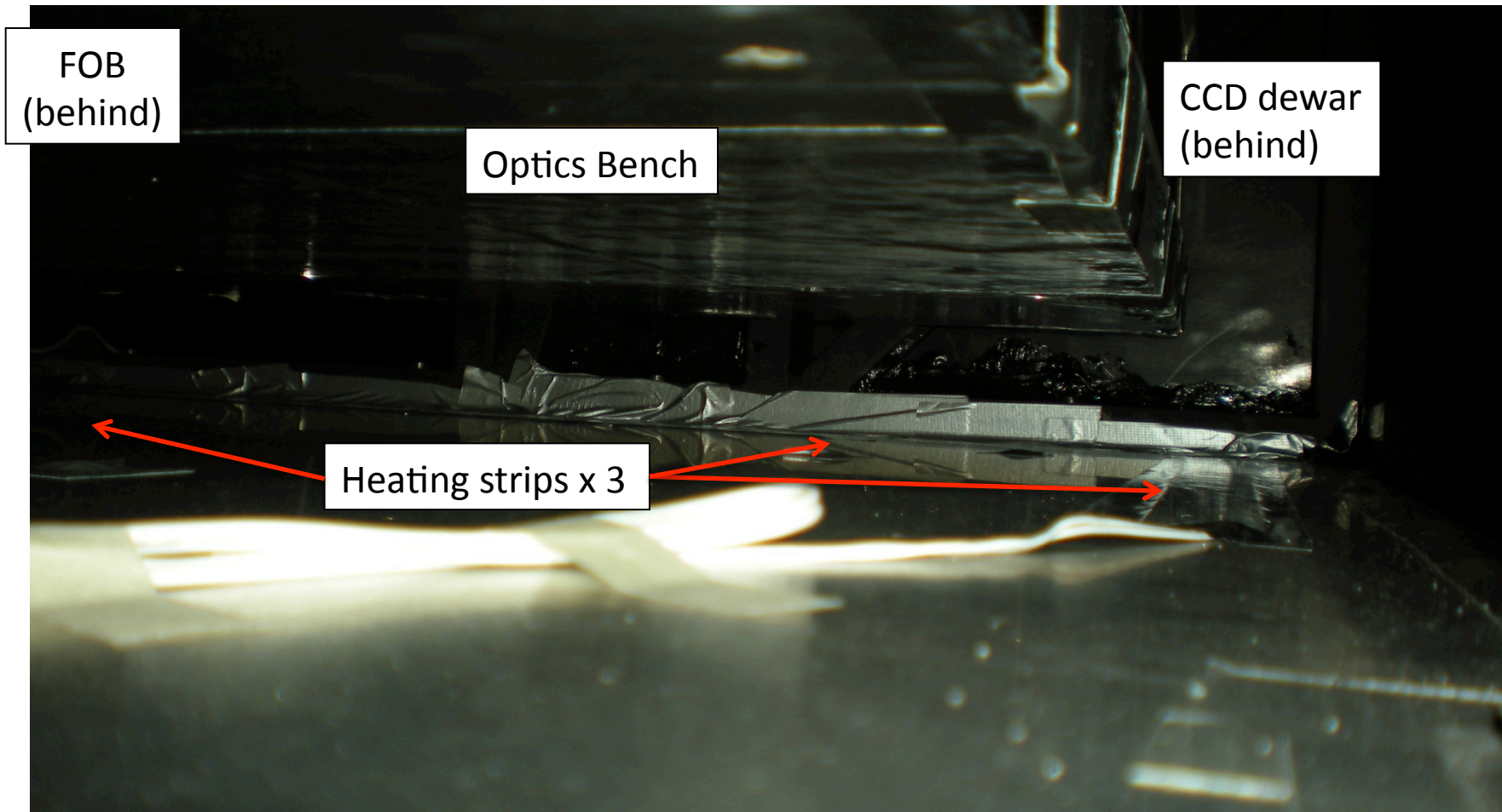


Looking in from behind dewar

Looking into CCD



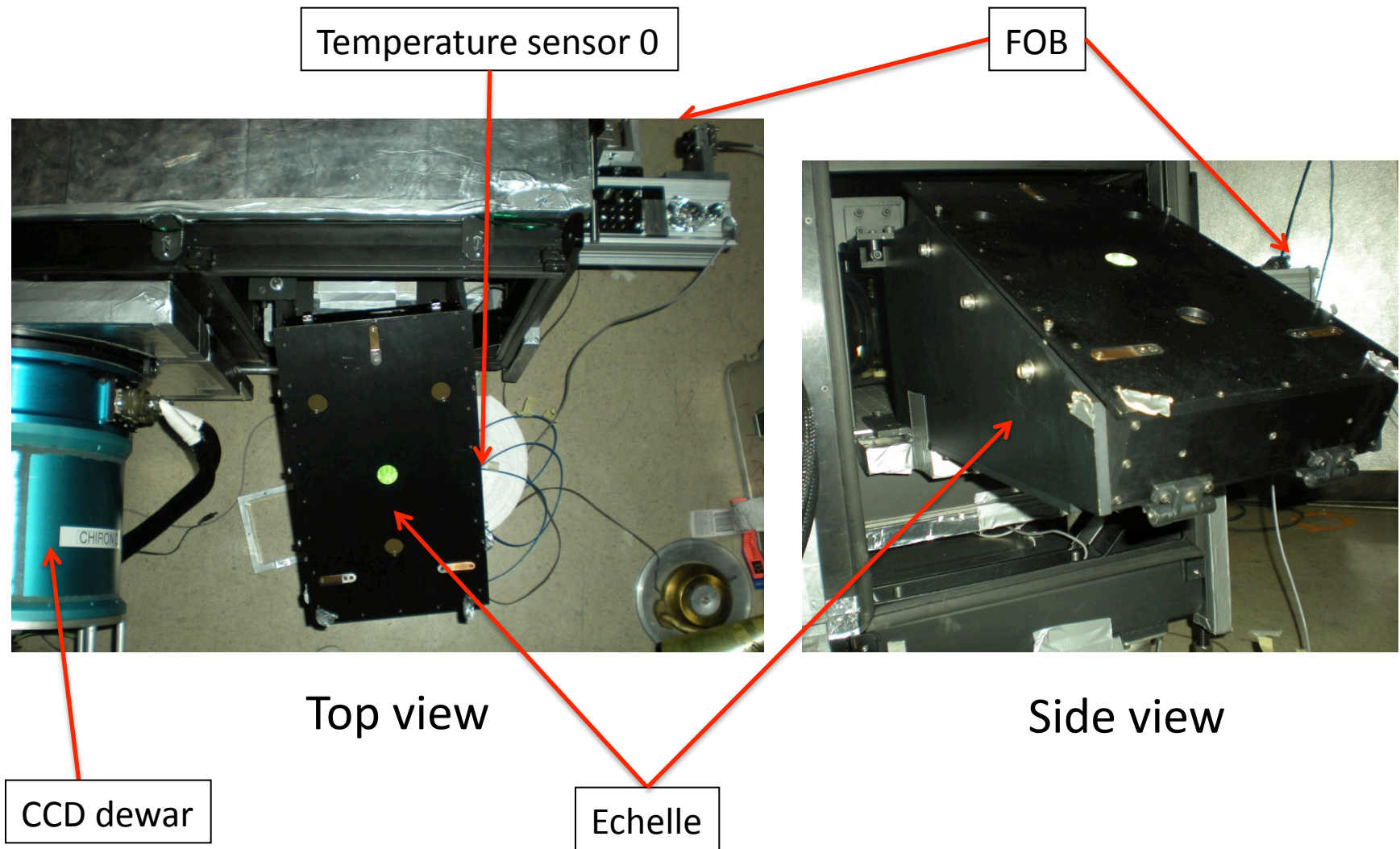
Heating Strips



On ISS beneath optics bench

[Refer to "CHIRON: Overhead View," page 3, for relative location].

Echelle Grating, Uncovered

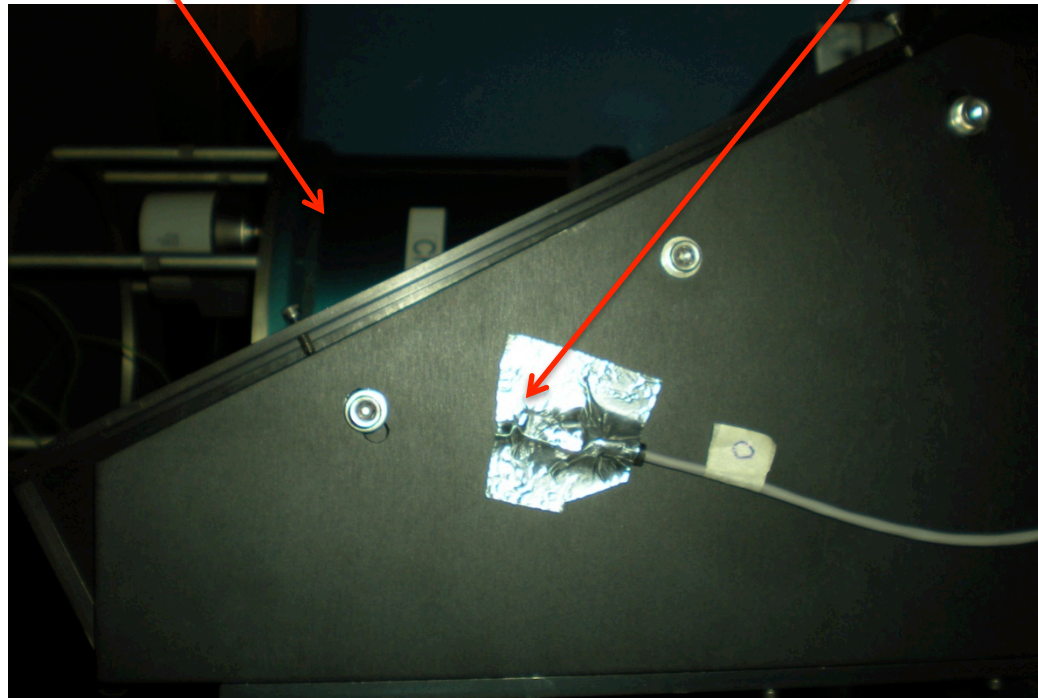


Grating Temperature Sensor

CCD dewar

FITS file keyword: **TEMPGRAT**

Temperature sensor 0



Side view of grating