
NIRSPEC

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NIRSPEC Cryomechanics Design Note 05.00 Optical plate and supports

Introduction

The optical plate will be a large aluminum slab acting as a “floor” on which we will install the components of the spectrometer, similar to the plate in Gemini. Oddvar has been looking at the way the plate will sag under its own weight and the weight of the components we load onto it.

What next?

We need to complete the mechanical analysis, with the “real” supports in the model, and decide things like the plate thickness and weight relief scheme. Thermal analysis also needs to be completed, since there is a concern that the plate may have extreme temperature differentials across it during cooling, and undergo deformation.