

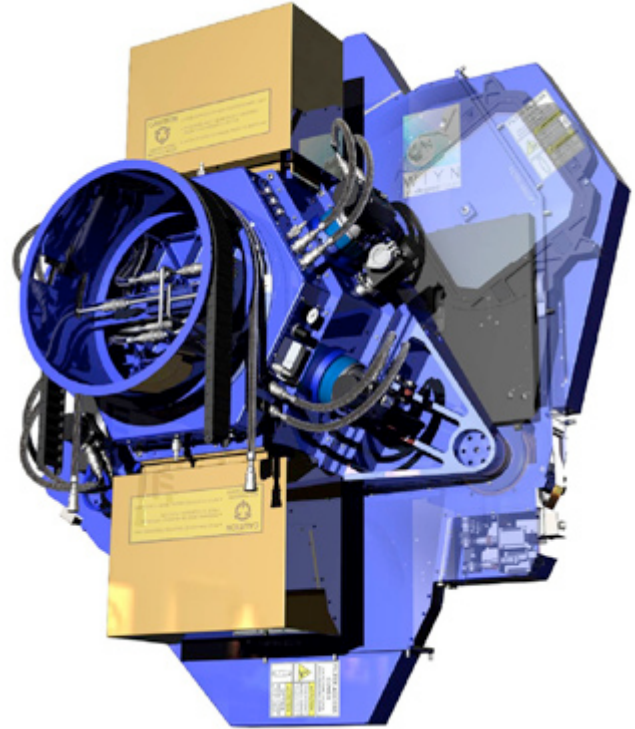
# Gary Muller Wins Design Contest Grand Prize—Again!

*John Cavin (WIYN/University of Wisconsin)*

**W**IYN Senior Mechanical Engineer Gary Muller won the Grand Prize in the SolidWorks Design Contest 2007 for the mechanical design of the WIYN One-Degree Imager (ODI). Gary had previously won the contest in 2001 for the design of the Gemini Near-Infrared Spectrograph (GNIRS). The announcement was made in January before an audience of 4,700 participants at the SolidWorks World 2008 conference. The press release may be viewed at [www.pr-inside.com/powerful-observatory-camera-model-wins-r401747.htm](http://www.pr-inside.com/powerful-observatory-camera-model-wins-r401747.htm).

The ODI design consists of approximately 500 individual drawings and 17,000 parts. The completed ODI camera will be approximately 7.5 feet high and will weigh approximately 2,500 pounds. ODI consists of a forward corrector, Atmospheric Dispersion Compensators, a nine-position filter mechanism, a shutter, a Dewar assembly, and the controller electronics (see figure). The Dewar assembly houses a 16-inch square silicon carbide plate that mounts the 64 Orthogonal Transfer CCDs (OTCCDs) that make up the one-Gigapixel focal plane. The Dewar also provides vacuum and cooling for the OTCCDs to  $-110 \pm 1^\circ\text{C}$ .

Gary used SolidWorks to document the entire design and is using the tools available in the NOAO machine shop to transfer the design electronically to the computer-controlled machines for fabrication. We congratulate Gary on another excellent instrument design and his international recognition as one of the nation's top mechanical engineers.



Rendering of the WIYN ODI designed by Gary Muller.