

Roboscope moves along

by Craig Tupper

The NOVAC roboscope is an effort to place an internet-controlled CCD observatory on a mountain in West Virginia with mag 6.7 skies. All club members will have the opportunity to capture CCD images via the web. For background info, see the project web site at <http://www.novac.com/robo/>.

The big picture is, things are moving along. Here's what Bob Neff had to say on August 12 about the observatory structure, which will have a 6-segment "clamshell" roof opening:

This week everything gets reassembled with waterproof glue and screws and then all surfaces and edges will be primed and painted. The only design change is the addition of fixed outside shields for the moving side panels. These will protect hands and fingers from the moving panel sections that can pinch, reduce the potential of the moving sections jamming with wind-blown branches, etc., and provide mounting sites for any external sensors on the east and west sides of the building. The roof drive and fail-closed setup work very well but I am still not completely satisfied with the magnetic release/latching mechanism. This needs more study and adjustment (tinkering). Rodents: I can line the inside of the equipment bay with sheet aluminum and cover the ventilation grates with quarter inch or smaller galvanized wire for rodent control.

In other news, Pete Johnson is making good progress on weather stuff, and showed us his home-brew Cloud Sensor 1.0 using a Peltier cooler and copper plates to measure the differential temperature between sky and ground. Pete has also had "first light" with his "star counter" cloud sensor and wants to get it to a dark site for further testing. He is currently shopping for a basic weather station, to include rain gauge, wind gauge, thermometer, etc. He's also done a lot of software/hardware work to enable all of this stuff to talk to the observatory control computer.

As far as the telescope/camera control software itself, a small group has been testing the system for the last two months, using just a web browser to capture CCD

images from the scope and camera while it is in Craig Tupper's back yard. Most of the serious issues have been ironed out, except for the frequent appearance of clouds! Several images from the test phase have been posted on the project web site. A Yahoo email list has been established for the group, and we are going to start using that for notification of when the Roboscope will be online for testing, as well as for scheduling observing time using Yahoo's Calendar function. If this works well we may use that list for the same purposes for future operations.

Phil Wherry has delivered version 1.0 of our Observing Request Queueing Software (ORQS), which will allow members to submit requests for images to be taken later whenever the telescope is in use by others. That should be working well enough to test it with the current group of testers once or

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twice; then my hope is to open up the Roboscope to the whole club while it is still in my back yard, some time in September. That will give me time to drive out other issues, and let members get familiar with the system, before Pete gets comfortable enough with the structure/weather/control to incorporate the scope itself.

In summary, progress is perhaps slower than some of us hoped when we started nine months ago but we are getting there. Budgetarily we are well within projections. I am disappointed that we probably won't be on the mountain in 2003, but we are making real progress towards a capable and robust system, and there should be benefits to doing local testing during harsh winter weather. ★