

The Great Barndoor Project of 1999  
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<http://members.kingston.net/~rasc/barndoor.htm>

We've been meaning to add barndoor trackers to our inventory of projects for quite some time. Several designs were looked at and shelved due to some perceived flaw or design aspect that we just didn't like. In the summer of 1998 Starfest offered for sale non-assembled kits of a basic Type I Barndoor Tracker. Several of these were purchased on the thoughts that anything was better than nothing and our own construction project was going nowhere fast.

They were assembled onsite and testing over the next few weeks showed that we were not happy with the design of this model either. These trackers were mostly left on shelves and the project went into hiatus again.

Just before 1999 the opportunity came up with our Youth Group program to build a large number of trackers and give them to the participants.

Everyone was gung ho over this idea (most of the organizers having been interested in astrophotography for years > decades and most didn't even have their own tracker!). Time was a problem so we decided to stick with a Type I right angle drive. We found some good ideas for design modifications and Tom Dean went ahead and built a prototype over one weekend in January. A few more design changes occurred after that and materials were purchased for 35 barn doors, 30 for the group giveaway and 5 for the loan program. Sample photos were taken and the results were very good for what we were expecting (5 minute tracking). On the 1<sup>st</sup> of February, construction started.

Quickly the project took on a life of its own. What was initially thought to be a weekend and a few evenings of work turned into 120 man hours over the course of the next two weeks, every spare hour in the evening and two long weekends. Much of the time involved coming up with assembly line techniques, waiting for the varathane to dry and juggling the production order. In the haste to complete the project (and after 'way too many fumes!) on Sunday February 16<sup>th</sup> a slight assembly error occurred and wasn't noticed until all 35 units had been finished. Whups! Another two hours to disassemble, fix the problem and reassemble and the project was declared DONE!



The last regular meeting of the funded Youth Group was held Saturday Feb 27<sup>th</sup> (the youth program will continue, albeit it in a different format) and 24 trackers were handed out. We are planning to have an observing session for all of the members and their equipment in the near future. A smaller construction project with an isosceles drive Type I tracker and a double arm tracker are



being planned for the near future, to allow members to borrow from the Loan Program and see the tracking accuracy differences for themselves. The prototype is shown below. More information is available on the web page listed above: parts list, handout of instructions, ideas for upgrades, links to other barndoor web pages and more. Complete assembly instructions will be posted at a later date.