



Experience with Student-Constructed Telescopes for Radio Astronomy

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Our group has designed, documented construction and operated Radio Telescopes intend for use by high schools, colleges, hobbyists and other Science Aficionados. We present our experience with college freshmen that built two telescopes during a two-week summer program. The students operated the telescopes, which they named Alexander and Bess. Their experience was mostly successful, and we learned how to improve documents describing construction and operation. We're incorporating lessons learned into revised documentation, published on the web at <https://opencourceradiotelescopes.org/wk>

This Wiki page shows images of the telescopes constructed, videos introducing the software and memos describing the more detailed aspects of construction.



Figure 1. West Virginia University Students, and several co-authors, with their student-built radio telescope, named Alexander, in operation at the Green Bank Observatory (GBO) in West Virginia. The horn-shaped telescope was constructed from bubble wrap, and other commercially available parts and electronics. The Students observed our Milky Way Galaxy, using GnuRadio software modified by the authors. This software is optimized for observation of neutral hydrogen atoms at 1420.4 MHz.