

# MARC Builders' Group April Build

Ethan Blanton, KB8OJH

The MARC Builders' Group met on April 25<sup>th</sup> in my workshop to build an RF noise generator for use in testing receivers and filters<sup>1</sup>. We didn't take attendance, but believe that 19 MARC members showed up, of whom 11 built the project and 8 were Elmers. Those 11 builders built 9 projects (Ron Hein (KD8PPL)'s son Sam built their project with the agreement that he'd help Ron build one later, and Carol Leedy (AC9KF) and her grandson Trey worked as a team), of which all nine were successful. Paula Spart and Sam were the *most* successful, with generators running up to about 500 MHz and 350 MHz, respectively. The rest of us went home with HF generators and would have some work to do to reach VHF or UHF!

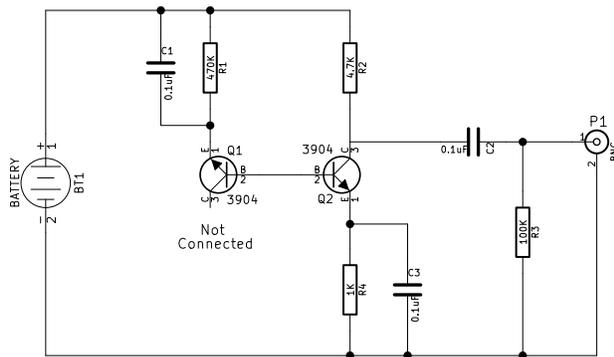


Figure 1: The schematic used. This schematic is modified from an EEWeb example, which was originally taken from the January 2005 Silicon Chip.

Figure 1 shows the schematic used at the build. Builders were encouraged to use the "ugly" construction method (sometimes called "dead bug") and everyone did, with many examples having better construction technique than the prototype they were shown!

Several builders came into the meeting with

<sup>1</sup>More information, including the project handout, can be found at <https://kb8ojh.net/projects/noisegen/>

no prior soldering or prototyping experience, but left with working projects. Builders learned how to cut and drill copper clad FR4 board, construct a chassis from copper clad, manipulate and solder components, and test their work with various pieces of test equipment. The theory of operation of the circuit was presented, but detailed understanding of the schematic requires more information than could be provided in the short time available. Everyone got a chance to see their generator on a spectrum analyzer, and a few used theirs to test a band pass filter or receiver.



Trey does some soldering while Harry advises and Carol looks on. Photograph courtesy of Mike Ciesiolka, KO9Q.

Everyone seemed to have a good time. Several builders have contacted me since the build to express their gratitude to the Elmers who showed up, so I would like to extend a special thanks to them. I would also like to thank everyone who came for bringing a positive attitude and having patience with the crowded workshop and limited seating. If these sessions continue to be so successful, we may have to find a larger venue!

If you would like to participate in future activities, please contact me at [elb@kb8ojh.net](mailto:elb@kb8ojh.net) to be added to the mailing list. We hope to have another build session early this summer.