

A photograph of a desert landscape at dusk or dawn. In the foreground on the left, a tall, spiky Joshua tree stands prominently. To its right, on the sandy ground, is a piece of electronic equipment, possibly a radio receiver, sitting on a blue plastic crate. A long, thin antenna wire extends from the equipment towards the right. The background features a large, rounded, reddish-brown hill under a clear, light blue sky. The overall scene is quiet and remote, suitable for radio listening.

Listening to Natural Radio

Building an antenna for
listening to VLF radio

Natural Radio

In this workshop we will build an antenna for recording electromagnetic waves in the VLF spectrum and attempt to isolate and identify signals from planetary and cosmic sources. We will consider the relationship between electromagnetic and acoustic waves, sources of interference, and the human impacts from producing these waves.

1. Waves: mechanical, electromagnetic, acoustic.
2. Signals and communication, human and natural
3. Building and testing the antenna
4. Recording with the antenna, methods and causes of interference, audio signal processing
5. Sharing!



The Loop Antenna

Materials (for single loop antenna):

- Loop Frame (hula hoop, wooden cross, sticks, easel, etc.)
- Lots of Wire!
 - 60-100m, based on frame size, smaller frame diameter means more wire.
 - 24 - 18 AWG / 0.5 - 1.0 mm diameter
 - Insulated! Magnet wire is a good option, multicore cable wired in series (see pics). Ask me if you aren't sure!
- Audio connector, Audio cable
- Portable recording device
 - Digital recorder. Something with dedicated audio input.

