

Foxhunting + Radio Orienteering (ARDF) Past Present Future?

TOPICS FOR TODAY

1. What is Foxhunting?
2. Who can Foxhunt?
3. Types of Hunts
4. What I need either Mobile or On-Foot
5. Mobile Hunts/Hunting on the Cheap
6. Hi Tech - KrakenSDR- Newest Doppler
7. Radio-Orienteering - The on-foot hunt
8. Hunting on the Cheap
9. Transmitter controllers
10. Changing Equipment



Foxhunting, Radio Orienteering What's he talking about?



1. It's a high-tech game of Hide and Seek
2. It's fun and can become addictive, especially for those who like to build things
3. It's educational
4. Foxhunting knowledge can be very useful
5. Can be mobile, on foot, or a combination of both



Two basic types of foxhunts?



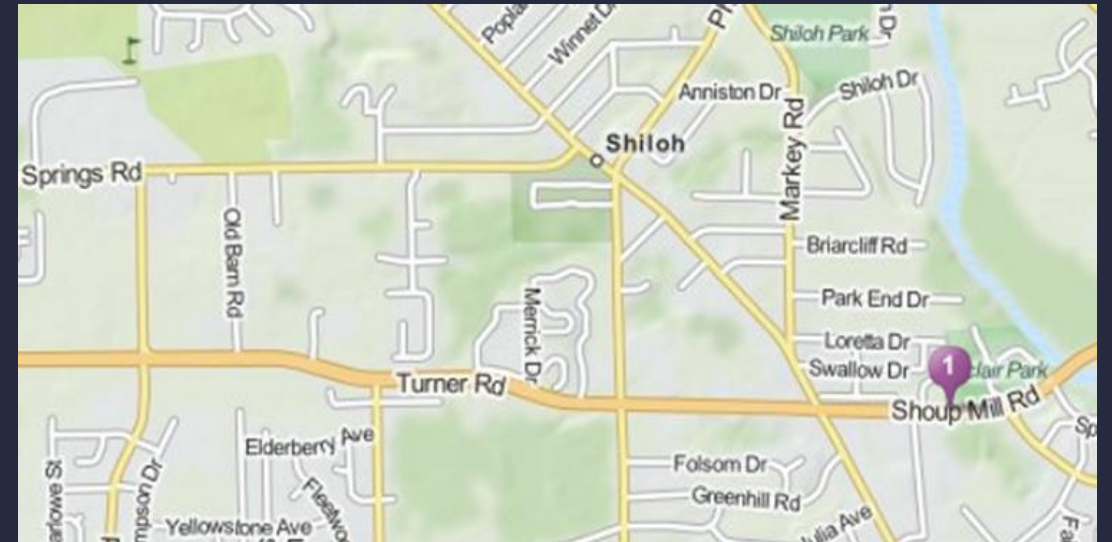
- On foot and Mobile



Mobile Hunts

To get started you need

- A receiver with an S meter
- A directional antenna
- An attenuator
- Compass is helpful
- Optional - Map, GPS, plotting software etc.



Hunt Equipment Needed



Yagi Antenna

Quanshenh UV-K6 HT



Loop Antenna



Receiver with S meter

Firmware update where you can get a -100 to +6 dbM meter display on it



VK3YNG



Attenuator KC90N

Mobile Hunts Receiver with S Meter

To get started you need

- A receiver with an S meter

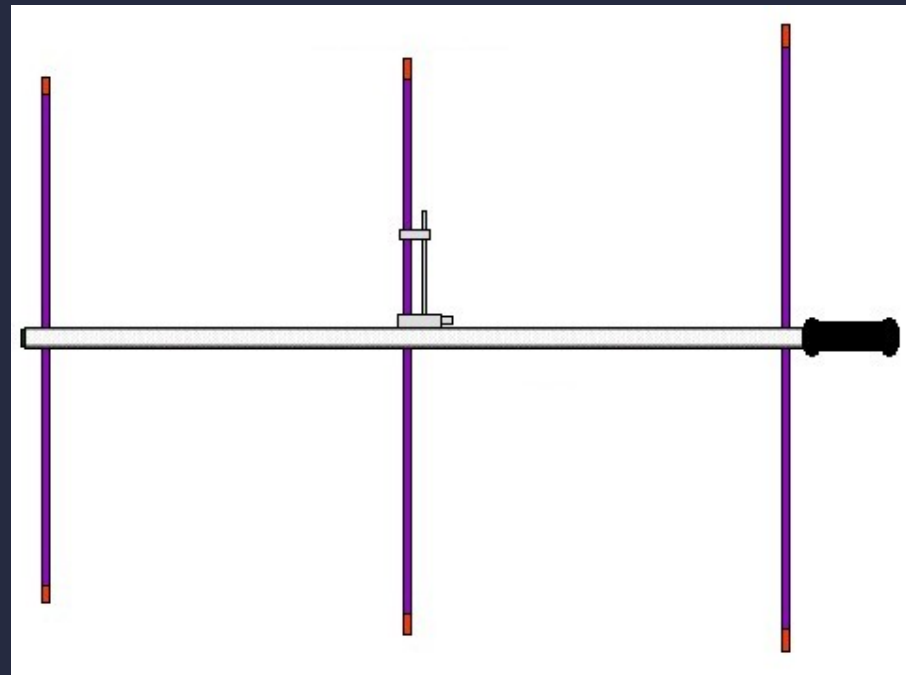


Mobile Hunts

Directional Antennas for 2M

To get started you need:

- A receiver with an S meter
- A directional antenna



YAGI



QUAD



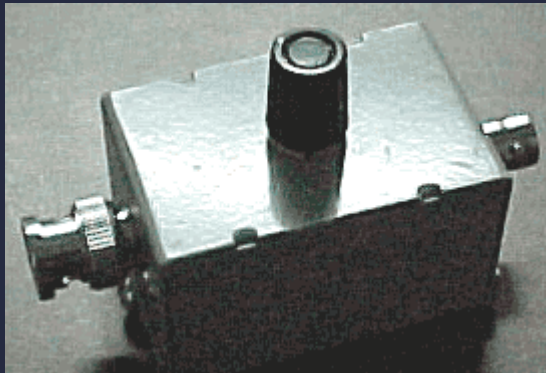
LOOP

Mobile Hunts

Controlling the signal

To get started you need

- A receiver with an S meter
- A directional antenna
- An attenuator



Hunting on the Cheap

Quick Setup for a New Competitor



Hunting on the Cheap Antenna Mounts



Scoring

- Shortest time to find
- Least Mileage
- Combination of both

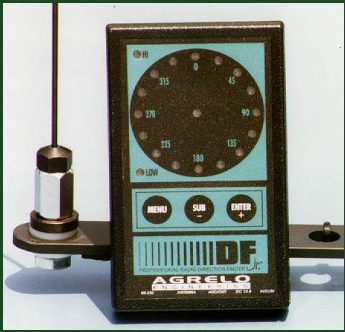


Other Considerations

- Geographical boundaries
- Private property
- Timed hunt
- Antenna polarity
- Signal required
- No rules – anything goes



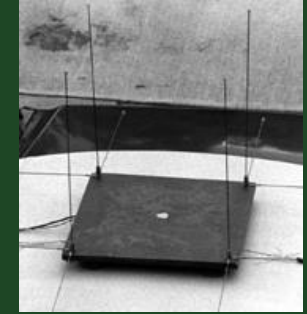
Dopplers – Dopplers – Dopplers – Dopplers



Agrelo Doppler - 1997



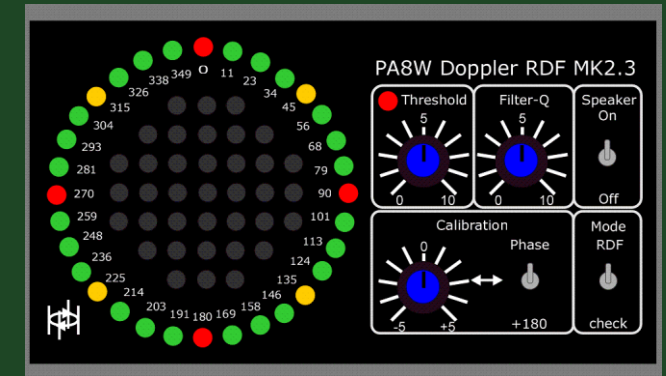
Roenoke Doppler - 1998



Ramsey Kit DDF1 – 1999?



Doppler systems DDF 6000 - 2011



PA8W Doppler RDF – 2012

Newest Entries

Future of Dopplers

KN2C, DF2020T Doppler - 2016



Kerberos SDR- 2020



Kraken SDR- 2022

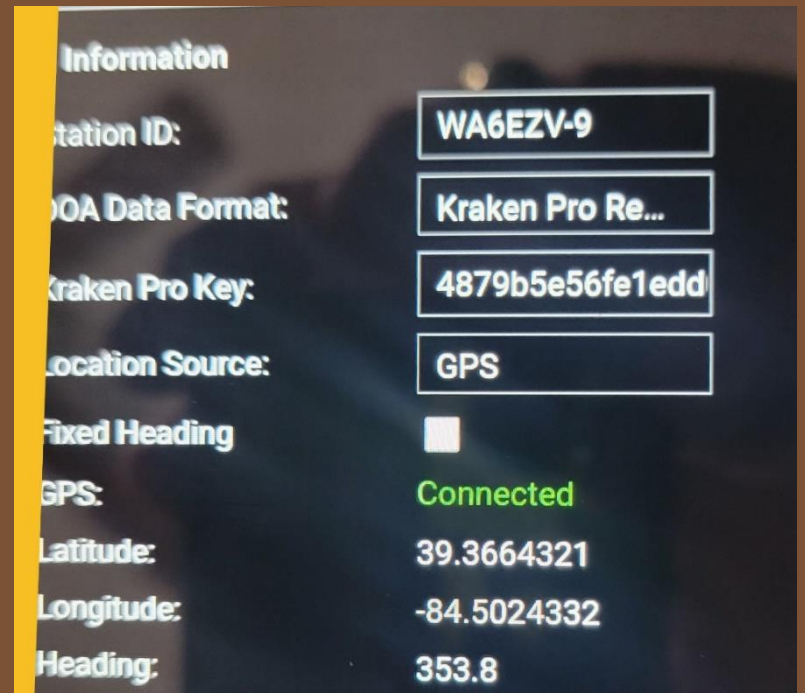


KrakenSRD – Not for Beginners

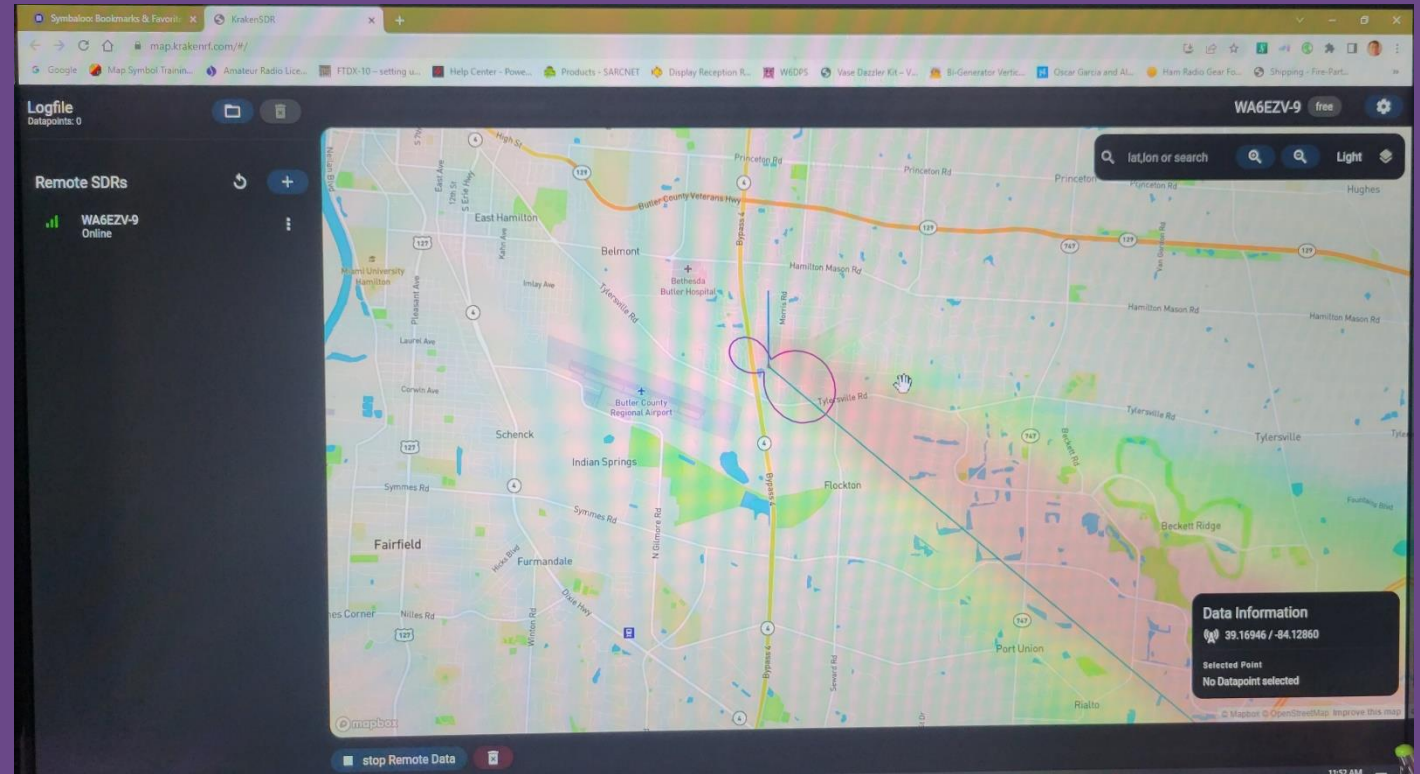
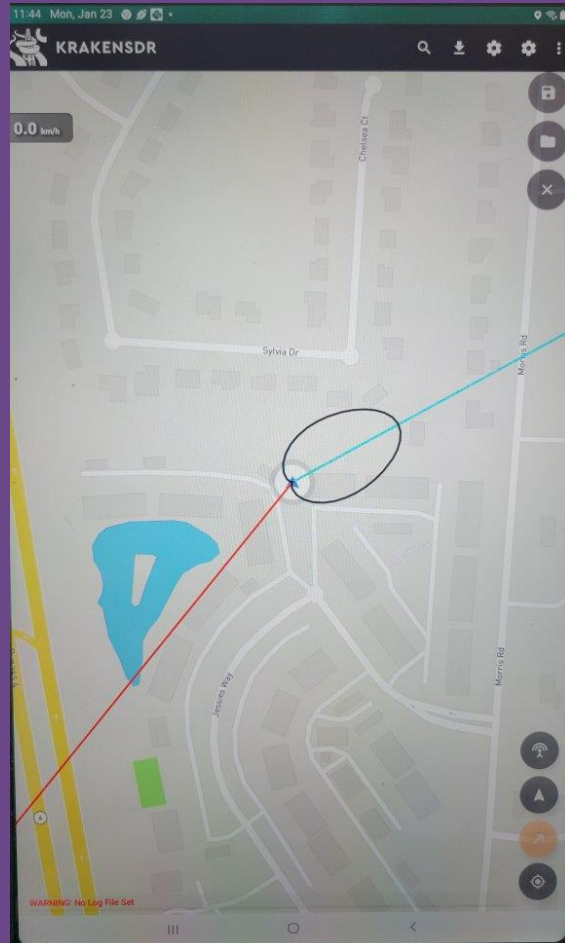
- KrakenSDR
- Raspberry Pi4 with kraken image and GSP Software
- USB GPS
- HotSpot link to internet
- Android Device running KrakenSDR
- For Collaboration – PC web browser - map.krakenrf.com
- KrakenSDR Account



KrakenSRD Setup



Android Display, PC Collaboration



Radio Orienteering (ARDF,) or On-Foot Hunting

- What is it?
- What you might need
- Getting Started on the Cheap - 2 Meters
- Transmitters and Receivers - Past, Present, Future?
- ARDF - ARRL involvement
 - ARDF - ARRL Charter approved and ARDF Committee members appointed
 - IARU Region II ARDF Rules created.
 - ARDF Web Presence - <http://www.arrl.org/amateur-radio-direction-finding>



What is It?

Amateur Radio Direction Finding is a fast paced on-foot type of foxhunt that can be enjoyed by individuals of all ages. It combines the skills of orienteering, map reading, with the directional skills of foxhunting. It is a great intro for youths into Amateur Radio and no license is required to participate.

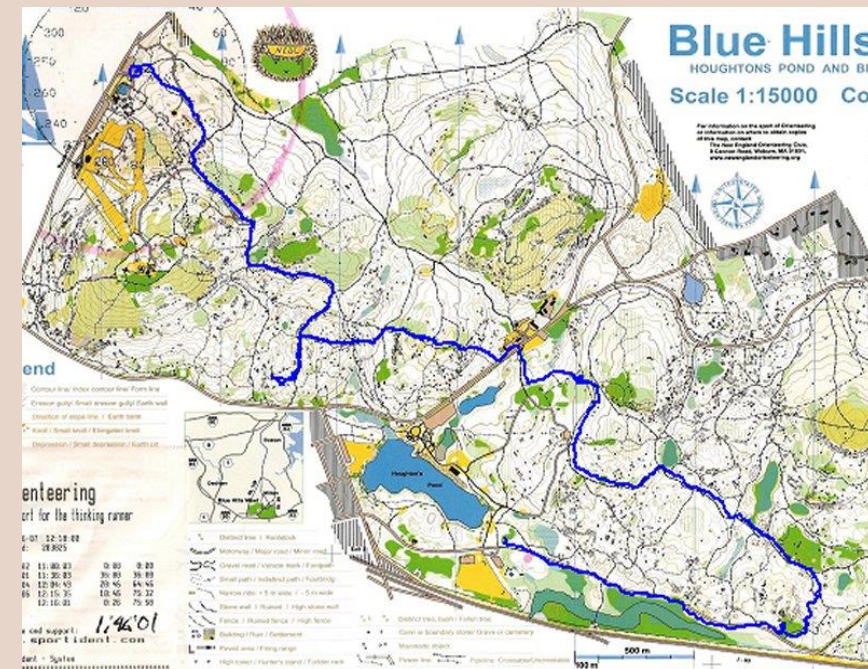


Orienteering: Orienteering is a sport in which individuals use an accurate, detailed [map](#) and a [compass](#) to find points marked on a map in the landscape. It can be enjoyed as a walk in the woods or as a competitive sport.

Radio Orienteering: Major Differences include:

- Only the start and finish are marked on the map.
- Five Radio beacons are placed on the course and transmit their location for one minute repeating at five minute intervals.

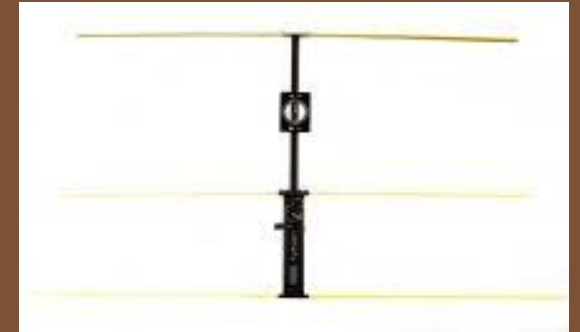
Competitions: 80M Sprint, 80M Fox-O, Classic 2M, Classic 80M



WHAT I NEED. SAME AS FOR MOBILE HUNTS

What you need – Same as Mobile

1. 2M receiver and/or Attenuator
2. 80M Receiver/Antenna and/or Attenuator
3. A Directional Antenna
4. Compass
5. Map



ANTENNA, ATTENUATOR, S METER

Getting Started on the Cheap

Directional Antenna - \$10-\$20



Attenuator- \$10



2M Receiver with S Meter



The Fox – A controller and a Transmitter



ATTENUATOR

A Cheap Attenuator

3rd Planet Solar / KC9ON



Fox Hunt V7, New, \$32



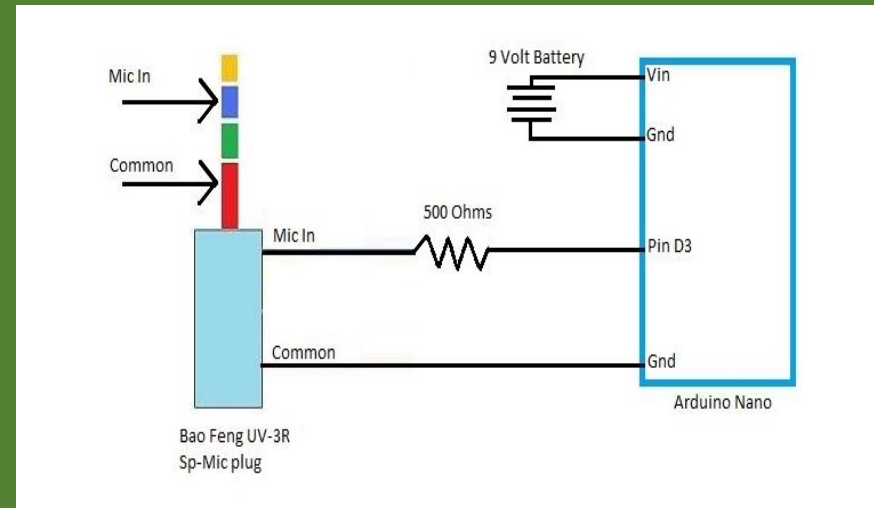
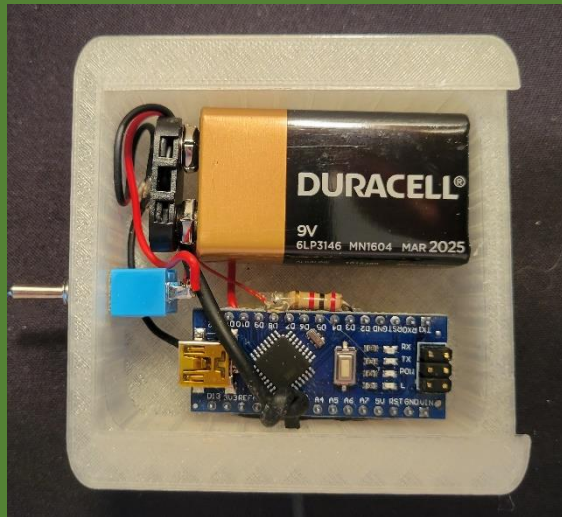
4M-Z offset Attenuator for \$10 - \$15

MAKING A TRANSMITTER CONTROLLER

Cheap ARDF Controller for BaoFeng HTs. Based on an Arduino Nano.

<https://www.qsl.net/w6dps/ARDF%20Controller.html>

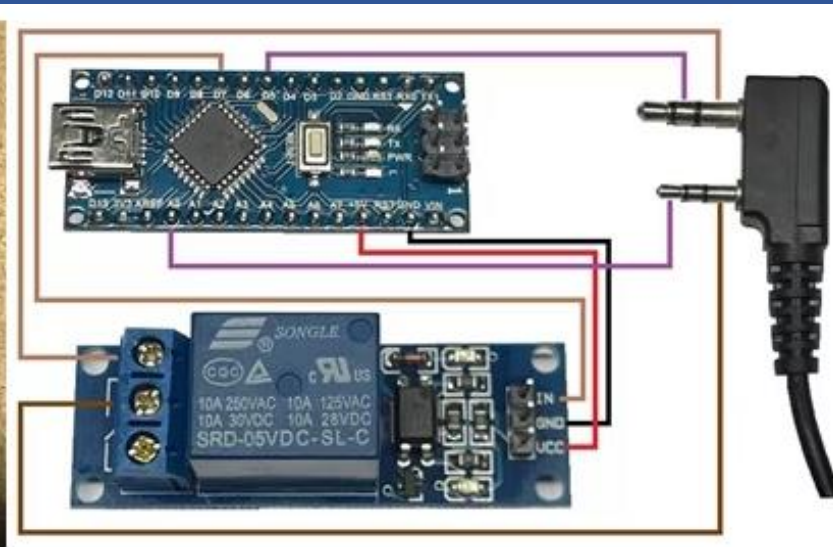
\$10 Controller



ANOTHER CONTROLLER

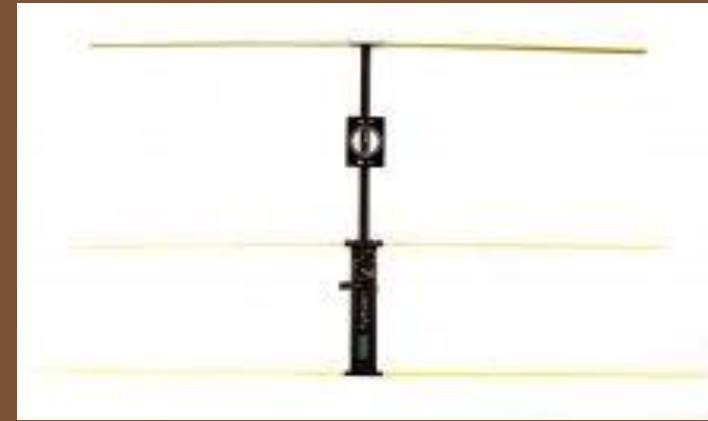
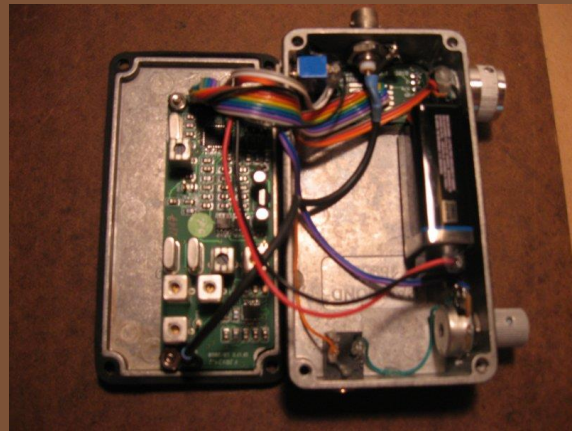
Another Cheap ARDF Controller for BaoFeng HTs. Based on an Arduino Nano.

<https://community.element14.com/challenges-projects/project14/rf/b/blog/posts/arduino-mini-rdf-fox>



2M AND 80M RECEIVERS

2M Receivers – Past to Present



80M RECEIVERS

80M Receivers – Past to present



Altai 3.5 – USSR – 194?



DL3BBX



OE6GC Receiver - 2002



Czech Republic
OK2BWN – 1993?



?????



WB6BYU,
Dale Hunt 2003



Vadim afonkin, KB1RLI
Receiver - 2016



Chinese PJ80,
R3500D



RigExpert 3500
2018

HEARING THE SIGNAL

80M Receivers – Can you hear it?

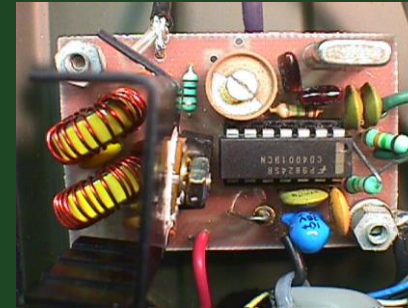


RADIO ORIENTEERING TRANSMITTERS

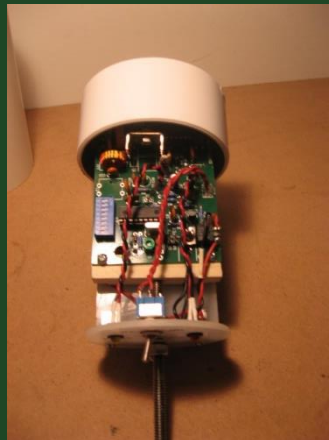
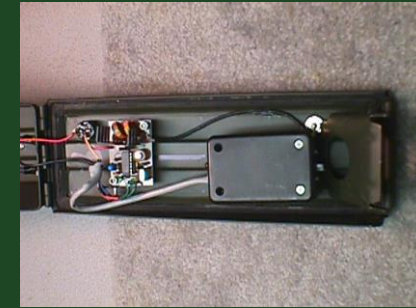
Transmitters – Just a Few Examples



10 Mw 80M Fox-O transmitter



Rick Stroebe 80M Fox with PicCon Controller



ATX80



TRO-2, 2M



OK2BWM – micro Fox

COMPETITIONS



2022 - 21st USA ARDF Championships Triangle, Virginia, April 7 - 10

2022 4th IARU World Youth ARDF Championship, Romania – June 29th-
July 3rd

2022 - 20th IARU ARDF World Championships in Serbia August 28 -
September 3, 2022

2023 – 22nd USA ARDF Championships – Cooper, TX, April 18th to 23rd

2023 Youth ARDF Championships PZK (Poland)

2023 World ARDF Championships CRC (Czech Republic, Liberec)

2024 – 23th USA ARDF Championships, Dexter, Michigan

2024 Youth ARDF Championships SRR (Russia, Ryazan) ???

2024 IARU R1 ARDF Championships MRASZ (Hungary, Pécs)



Local and Regional Practice events – Check Homingin.com



DE WA6EZV