

Radio in a Box “Go Kit” Show & Tell

DIY Idea for Emergency Communications

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DIY Radio in a Box

- Many CERTs & hams have a Radio “Go Kit”
- I want to share with you my budget DIY GMRS radio in a box
 - I participate in the weekly GMRS CERT2 & Zello net check-in
 - This “Go Kit” radio is what I use
- This may give you ideas for your own DIY build
- Contact me if you have questions & comments: rmacwhy@gmail.com

Radio in a Box “Go Kit”

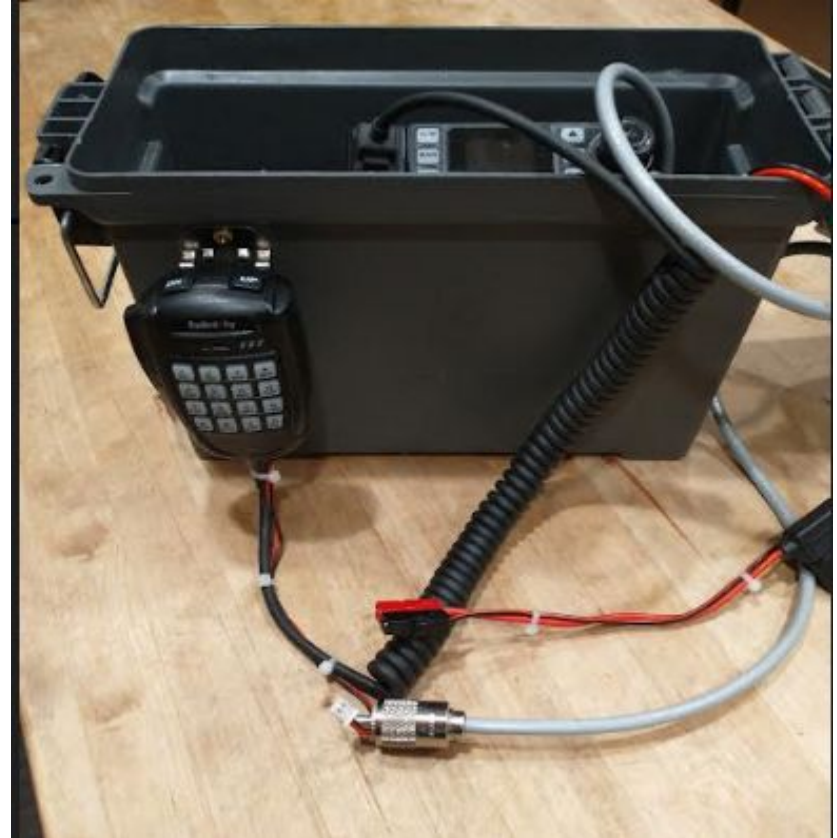
Radio in a plastic weatherproof box for storage & ready for emergency use. ...A Go Kit for EmComm.

...You can also use other boxes: tool box, a case for an old battery drill driver, dry box, etc. (best if weather resistant)



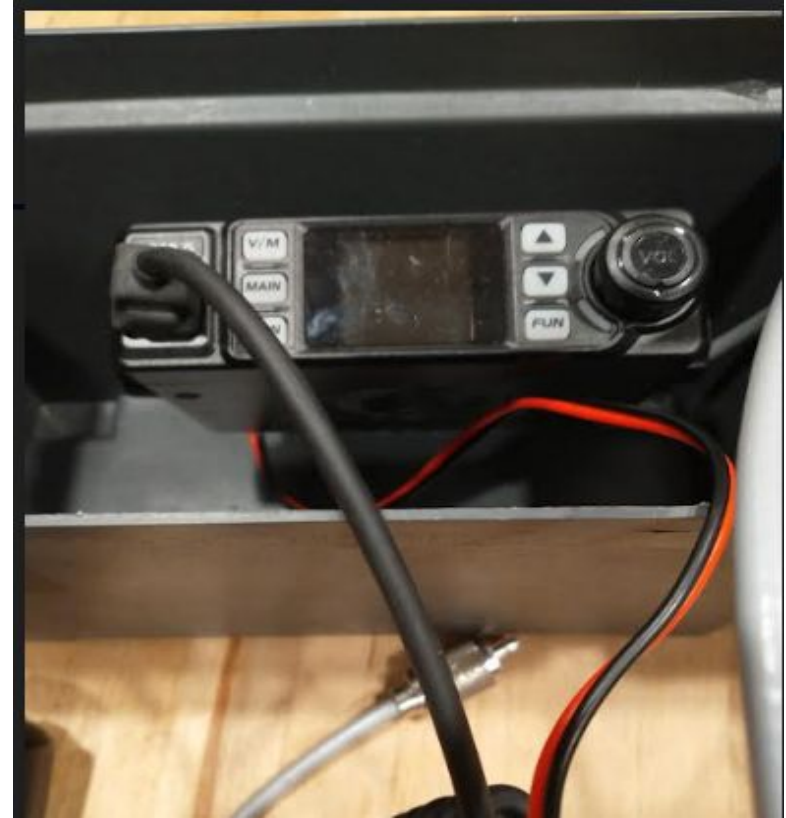
My “Go Kit” Radio - Ready for Use

- GMRS mobile radio
- Plastic ammo box (30 cal)
- Short coax cable from radio to connect to a base or mobile antenna (not shown: need female to female adaptor)
- DC powerpole connectors (Anderson Powerpole) - the red/black connector
 - Powerpole connectors are the defacto standard for radio DC connections used by hams & em comm people



Spare Room Inside the Box

- Room inside for the microphone, coax cable & DC power cable
- Plus space for other items
 - Antenna connector adaptors
 - DC power connectors
 - Fuses
 - Instructions & cheat sheets



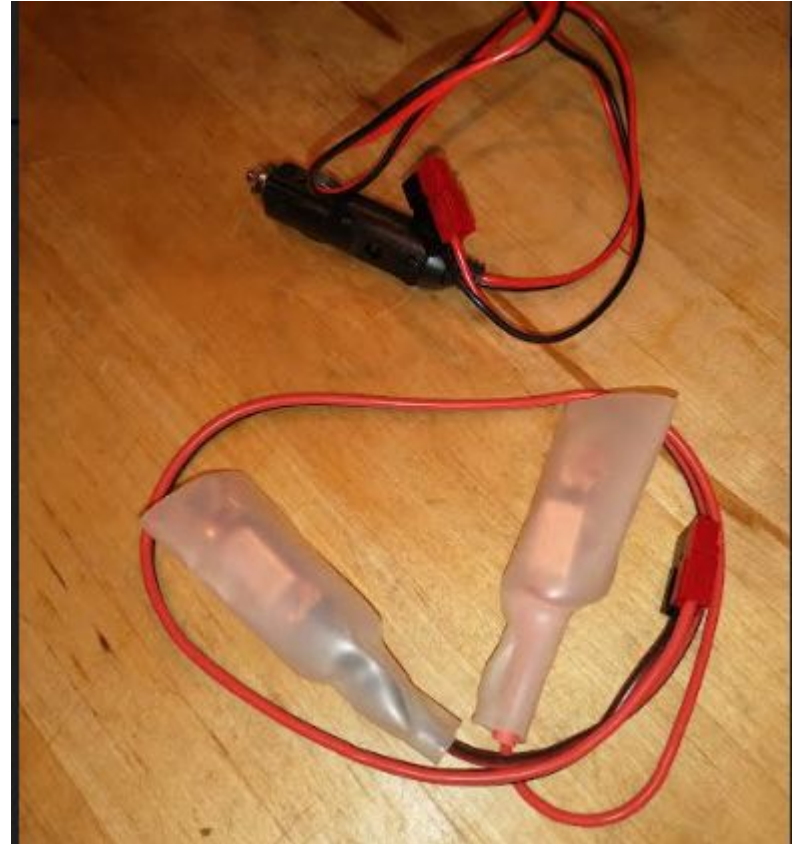
View of Radio Itself

- Use a right angle adaptor for the coax cable - to avoid tight bending of the cable in the box



DC Power Adaptors - for Field Work

- Top: Cigarette lighter plug to get power from a car
 - Bottom: Alligator connectors to clip on to a a car or other battery
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- Note use of powerpole connectors!
 - Good to also also have an extension cable with powerpole connectors



Batteries

- Blue item: LiFePo4 Battery 12v
 - Higher capacity
 - Light weight
 - \$50 for a smaller size one
- Other battery option - old tech: 12v SLA (sealed lead acid) battery
 - Lower capacity
 - Heavy
 - \$25 for 7-9AH battery (used in UPS battery backups)
- Require charger specific for the battery chemistry (\$20)
- Also can use an AC plug in power supply for your radio, but not suitable for emergency emergency field use



\$145 Cost Estimate for Radio Box Only*

(Your mileage may vary)

Budget radio for GMRs - Radioddity DB20-G (advertised 20W)	\$110
30 cal ammo box (Harbor Freight)	7
Coax cable (Amazon)**	10
Coax right angle connector & adaptor (Amazon)**	10
Powerpole connectors**	3
Fuse holder, coax adaptor, hardware screws & nuts	5
Total	\$145

- Products & vendors are suggestions
- *Does not include battery, battery charger, power adaptors (cigarette & alligator) & other accessories
- **You may need to purchase a packaged quantity which will cost more (suggestion: do your diy build a friend)