

Modifying the Zodiac AC Charger for USB Charging

From "Doc Scott" at www.tapland.com

Difficulty: Easy

Tools Required:

-Sharp Knife

-Electrical Tape



Equipment:

-Zodiac AC Charger

-Generic USB Extension Cable



\$2 from www.newegg.com

Optional (but helpful):

-Wire Strippers

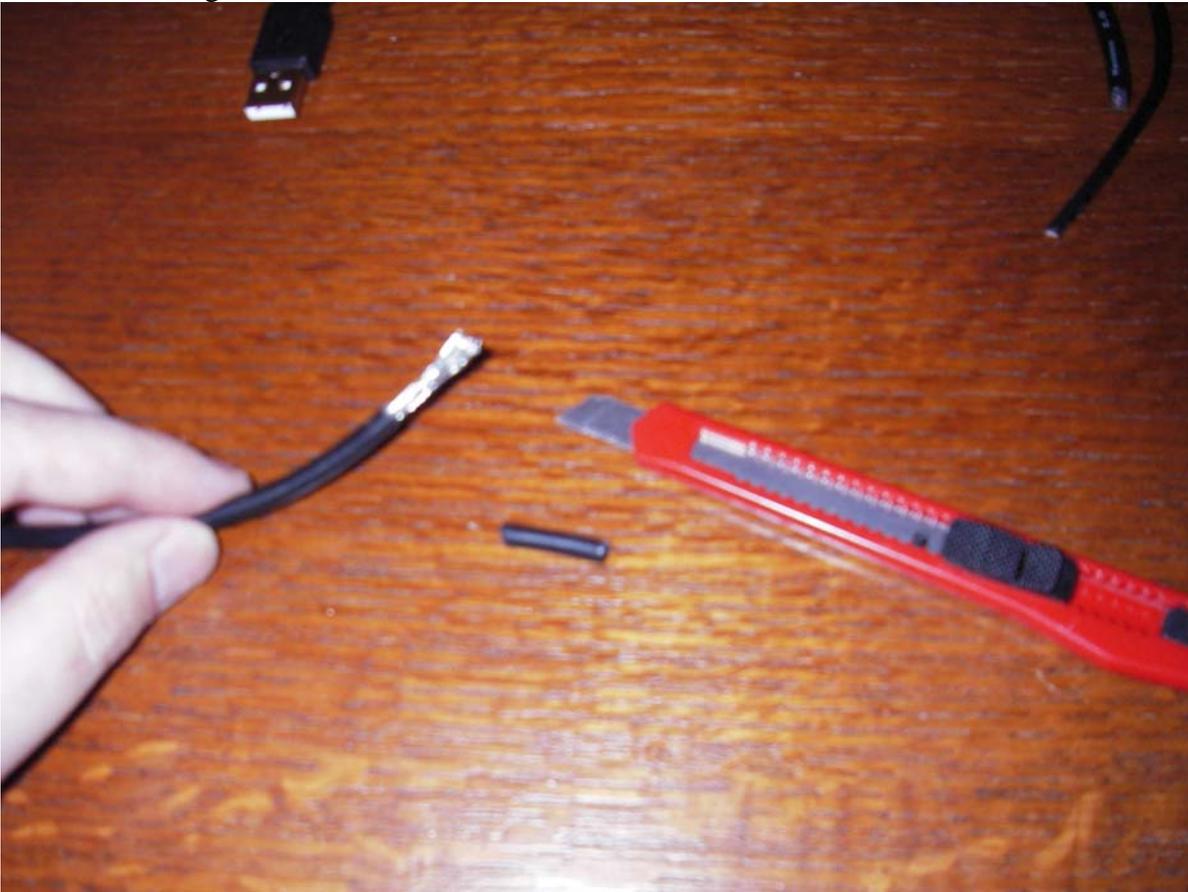
-Wire Cutter



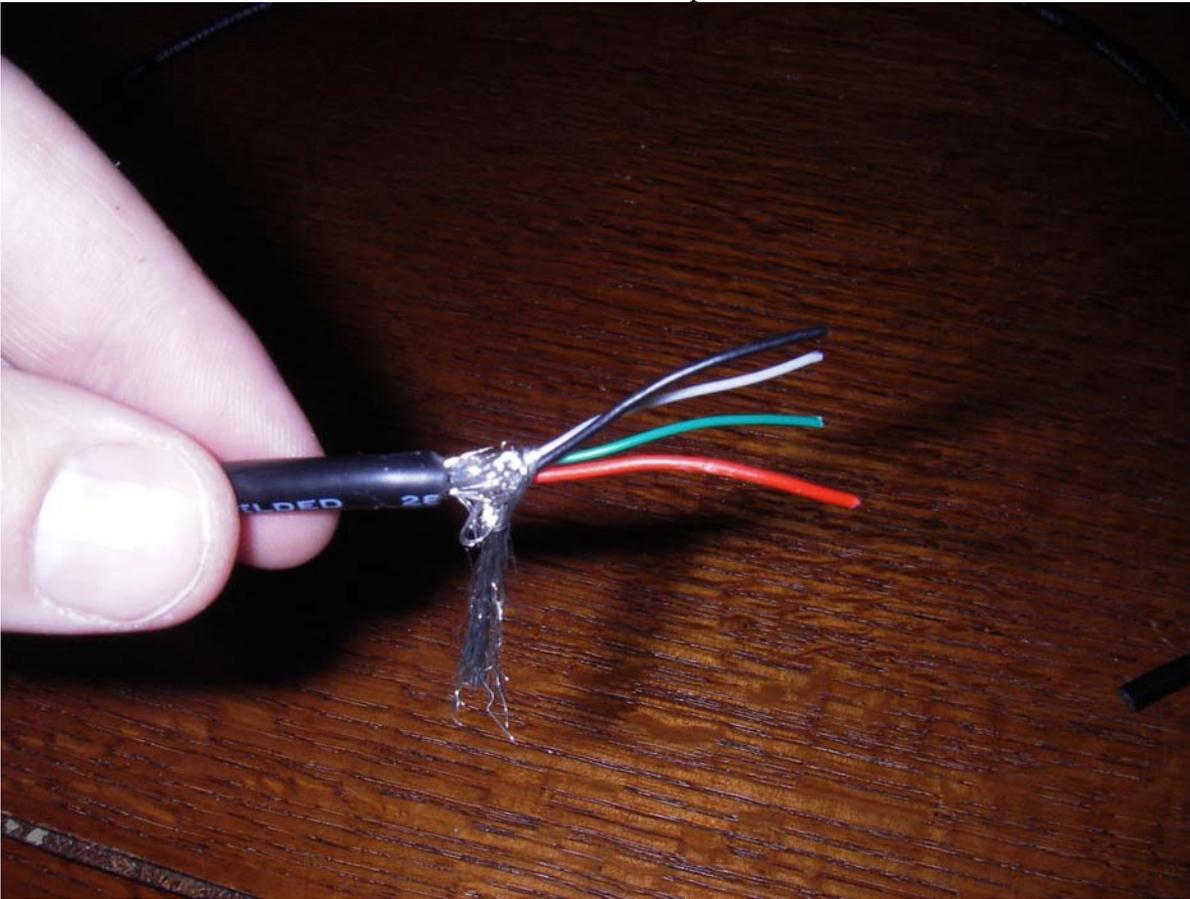
Step 1: Using wire cutters or (with difficulty) a sharp knife cut the Zodiac AC charger cable a foot or so from the Zodiac connector. Then take your USB cable and cut it at desired length from the male end (to be used as your USB charger). You will also probably want to shorten (cut) the remaining USB cable that will connect to the Zodiac AC charger's transformer.



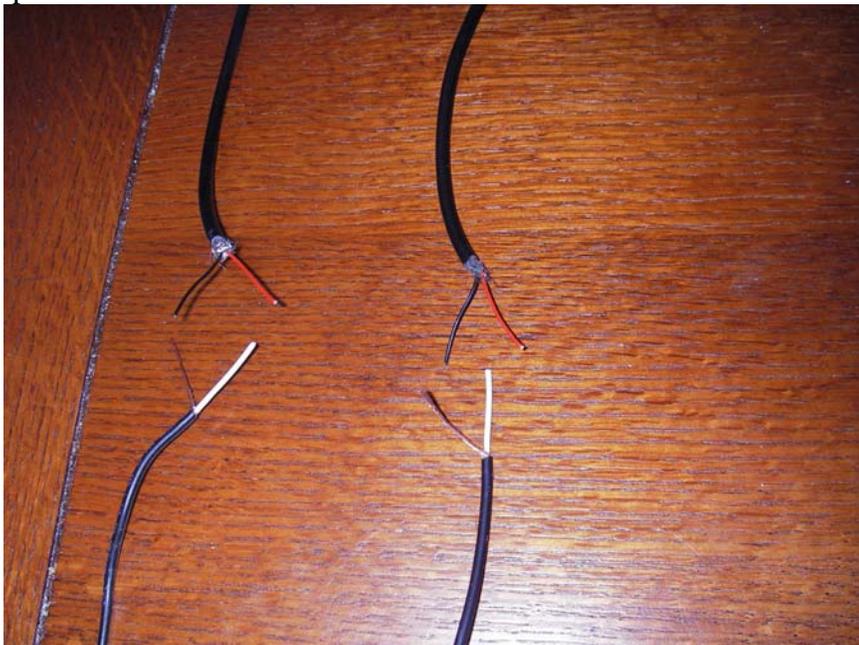
Step 2: Strip the outer layer of insulation from the two ends of the USB cables and from both ends of the Zodiac AC charger cables about 2 inches from the ends.



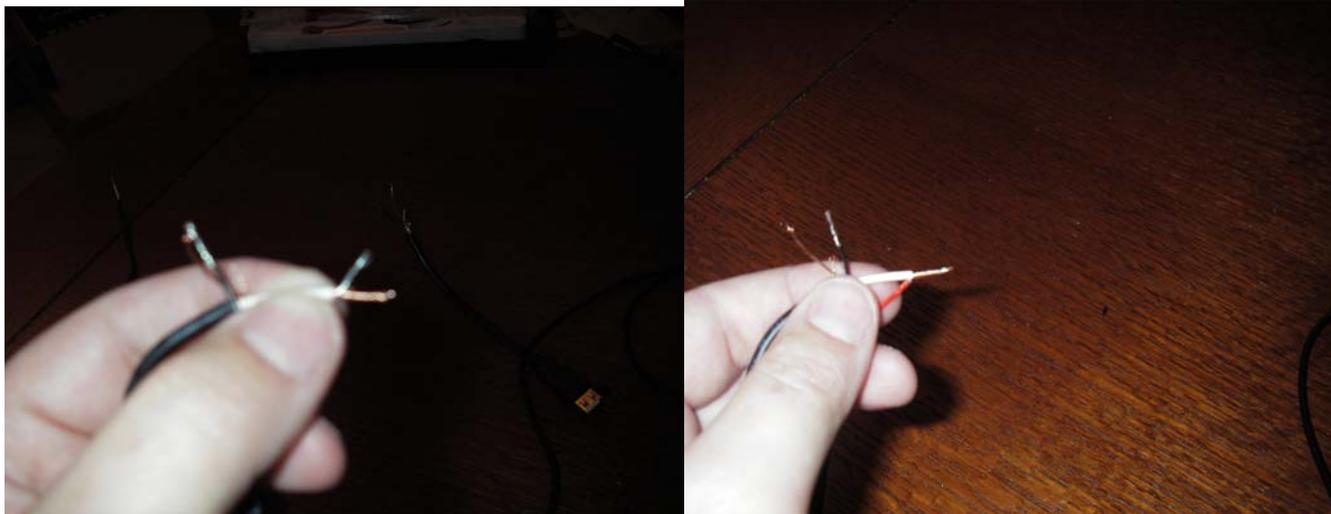
Step 3: The wires inside the USB cable will be surrounded by a wire mesh and metal foil shield, pull this apart to expose the 4 wire inside then clip off the wire mesh and foil to get it out of the way. Also cut away the green and white wire (you won't be using them). Next strip the insulation from ½ inch from the ends of the red and black wires. Twist the free wire ends to neaten them up,



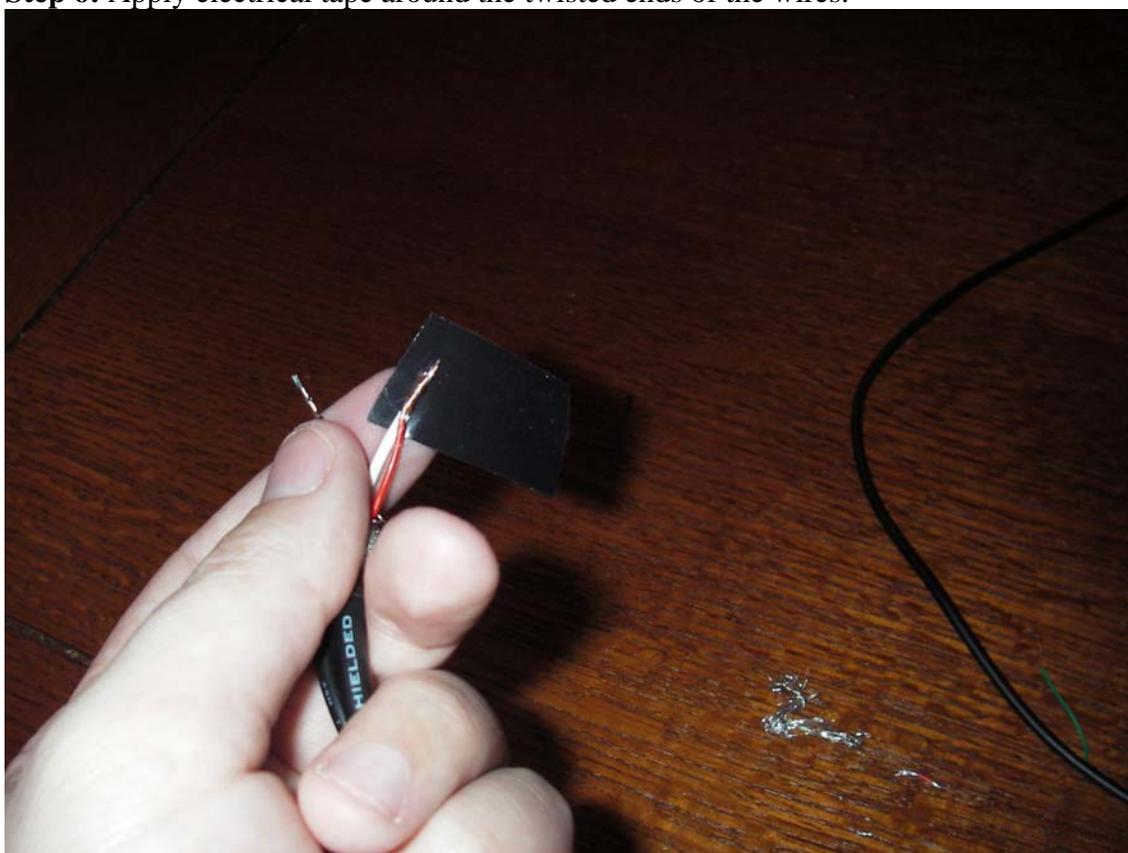
Step 4: The Zodiac AC charger cable contains a loose copper wire (- or ground) and a white wire (+). Strip ½ inch from the white insulated wire. Twist the free ends of the wires to neaten them up.



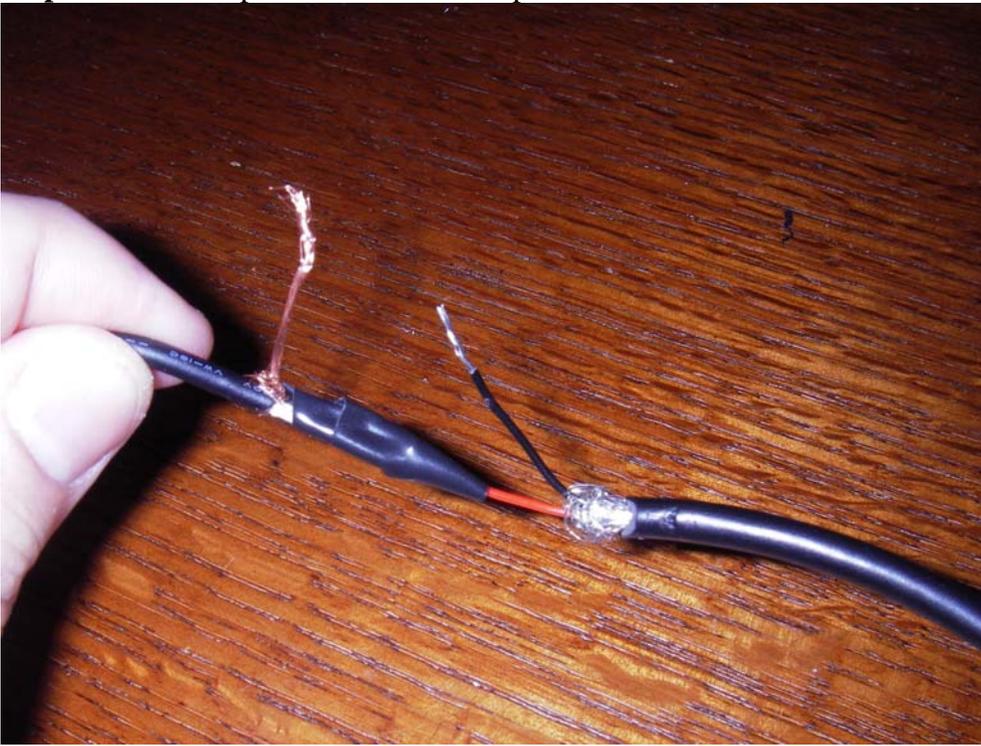
Step 5: Next take Zodiac connector cable and the male USB cable end. Twist together the white wire from the Zodiac cable with the red wire from the USB Cable.



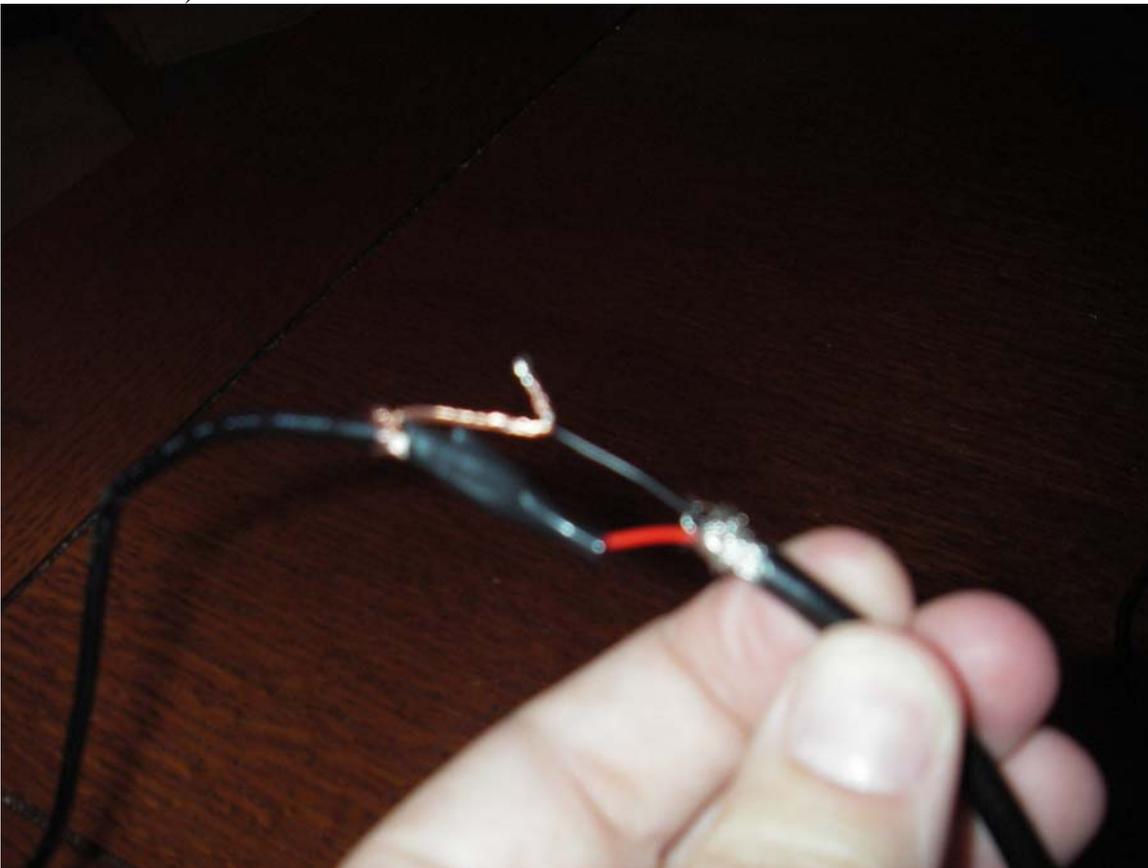
Step 6: Apply electrical tape around the twisted ends of the wires.



Step 7: Fold the taped wires over and tape over them and around the red and white wires,



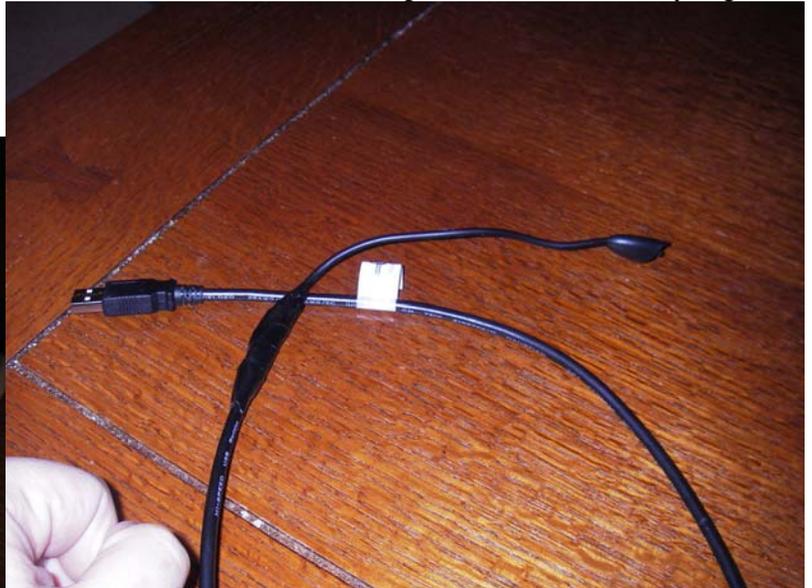
Step 8: Then twist the black wire and bare copper wire together (no point in taping since the other wire isn't even insulated).



Step 9: Tape over the entire splice.



Step 10: To give the splice some strength, fold it over and back on itself and tape the two wire firmly together.



Step 10: Repeat these steps to join the female end of the USB extension cable to the Zodiac AC adapter..



You can now connect the AC adapter to your Zodiac using the USB connector, or use the USB cable to charge your Zodiac from various USB chargers/battery packs etc. such as those provided by www.boxwave.com