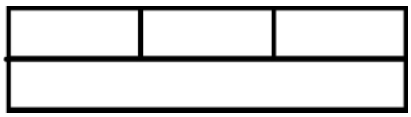
AA0ZZ EZ Keyer

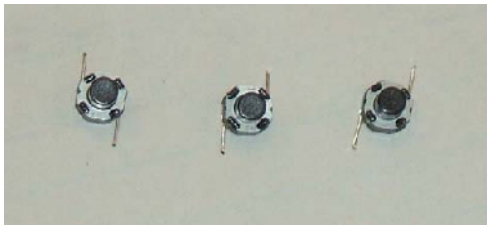
KC0PET Build

Tactile Switches

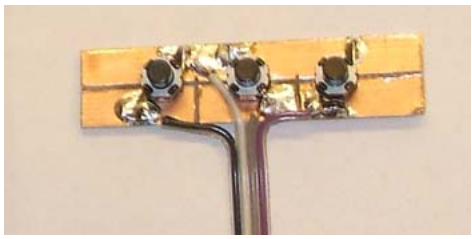
- Cut a 1.9” x .45” PC Board and route through the copper as follows (dimensions not critical):



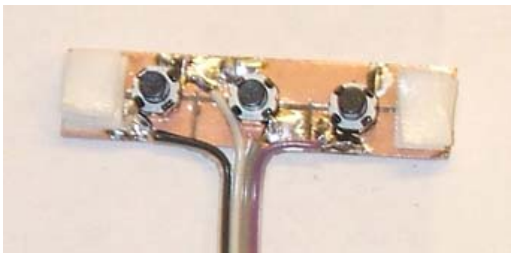
- Bend leads on tactile switches in opposite directions:



- Solder switches in place and add wire. Ribbon cable is handy, but any small hookup wire will work. The switches need to be on 0.5” centers (same as the holes in the tin):



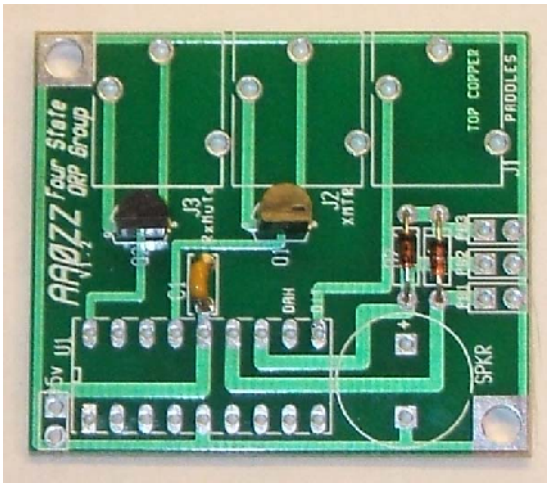
- Place 3 layers of 1/16” foam double stick tape on each end:



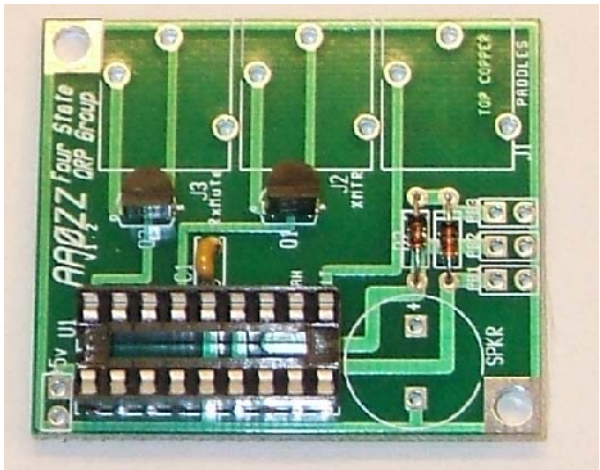
- Ream out the switch holes on the tin slightly for good fit (I used a countersink bit).
- Make sure to remember or write down the color coding of your wires.
- Install board. Press down and hot glue corners of board in place. Make sure the push buttons are centered in the holes:

Keyer

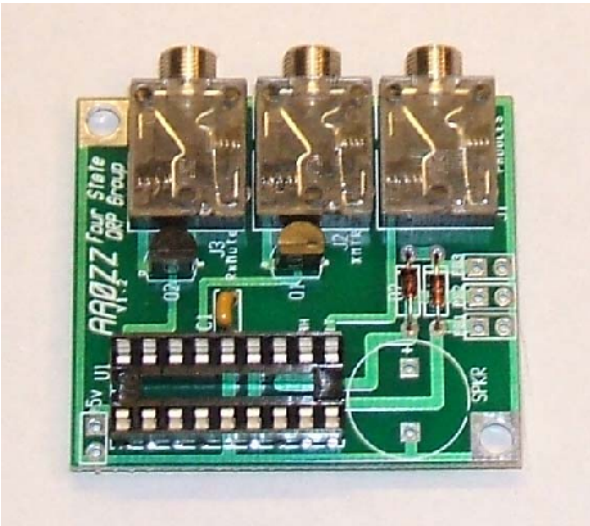
- I stuffed board in “layers”
  - Solder first “layer” – D1, D2, U2, U3, C1:



  - Solder U1 socket in place:



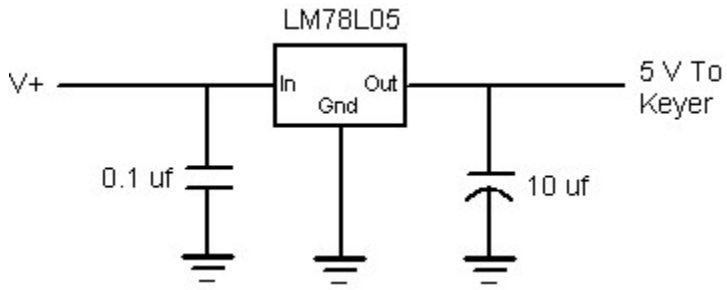
- Solder J1, J2, J3 in place:



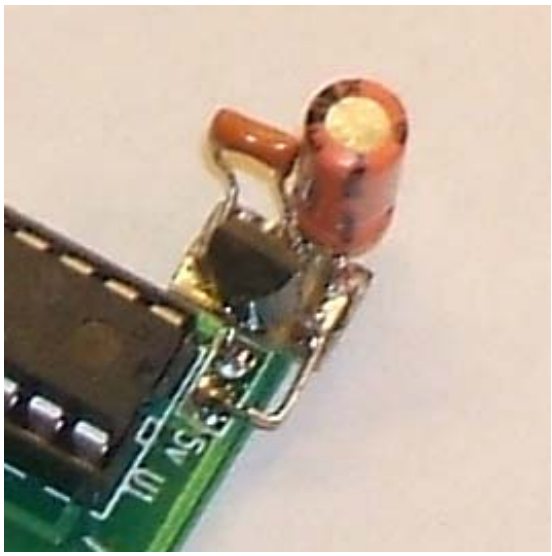
- Solder SPK1 and installed U1:

- Solder the wires from the switch board following the color coding.
- For mounting in an Altoids tin, the upper left corner on the above photo needs to be ground off (where the mounting hole is).

- I chose to power mine with external power. I built a 5V regulator "daughter board:
  - Schematic:

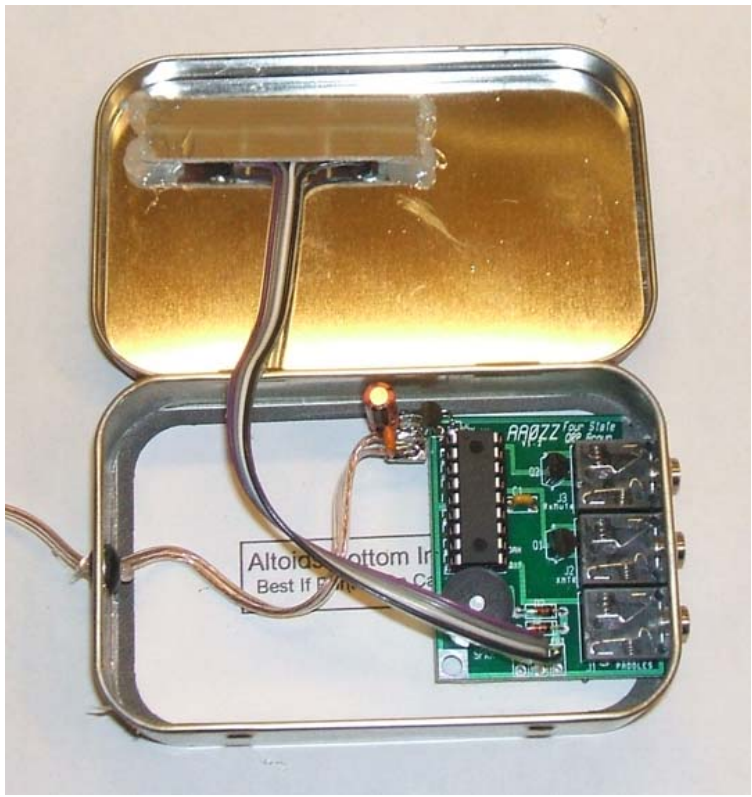


  - Parts:
    - LM78L05 5 Volt Regulator
    - 0.1 uF Ceramic Capacitor
    - 10 uF Electrolytic Capacitor
  - Cut about 0.4" x 0.25" PCB.
  - Cut 2 grooves dividing the copper into thirds on the board.
  - Bend leads on LM78L05 at a right angle in the direction of the flat side of the IC. Trim the leads to fit on the board.
  - Solder LM78L05 in place.
  - Bend leads on 10 uF Capacitor, pay attention to polarity, trim and solder into place.
  - Bend leads on 0.1 uF Capacitor at a right angle, trim and solder into place.
  - Using cut off leads, "join" the regulator board to the keyer board:



  - Solder a 2-conductor power lead to the regulator board, wiring for proper polarity.
  - Punch an additional hole in the tin opposite the keyer connectors and install a grommet.

- Route the power cable through the grommet. Tie a knot or use a little hot glue to make a strain relief.



- The keyer is now complete!