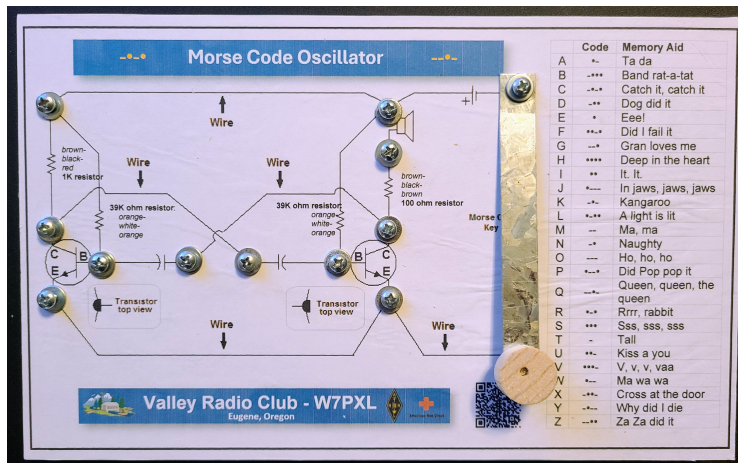# Directions for the Valley Radio Club Morse Code Oscillator
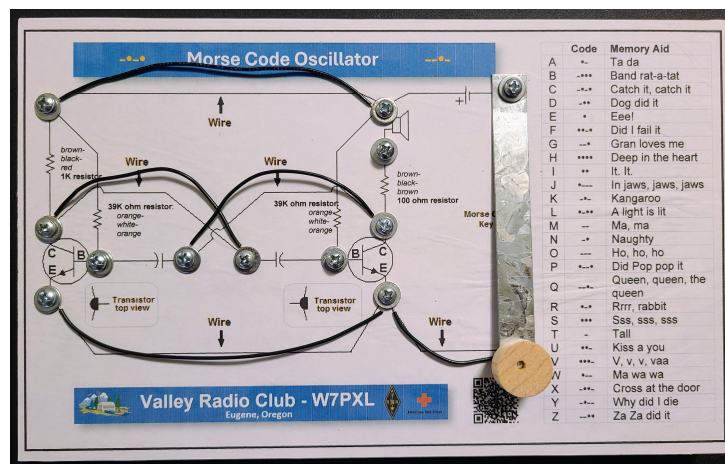
Start:
1. Put a washer on each screw
2. Put one screw with a washer in the metal strip that will be a switch (goes on the right)
3. Screw the metal switch in the top right hole and end the other end up a little
4. Put a screw in each remaining hole
5. Twist each screw down so there is only a little space to put wires under the washer.   <u>Don't</u> screw them down all the way yet.
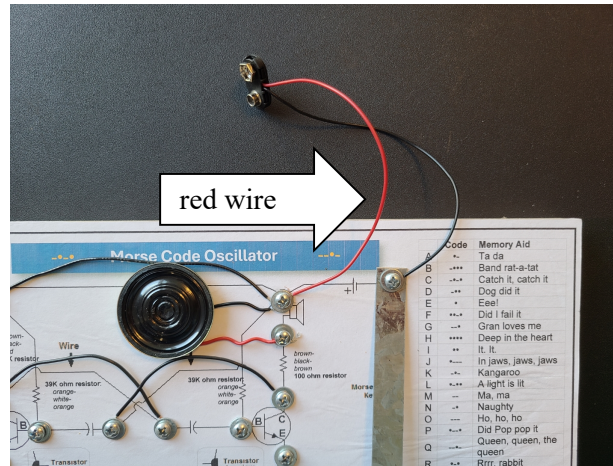

Wires (put ends **under** the washers)
6. Put the shortest wire under the part of the key you press and the nearby screw
7. Put the other remaining smaller wires where they go in the middle of the board
8. Put the long wires where they are marked on the board
9. Twist the screw under the metal key down completely onto the wire
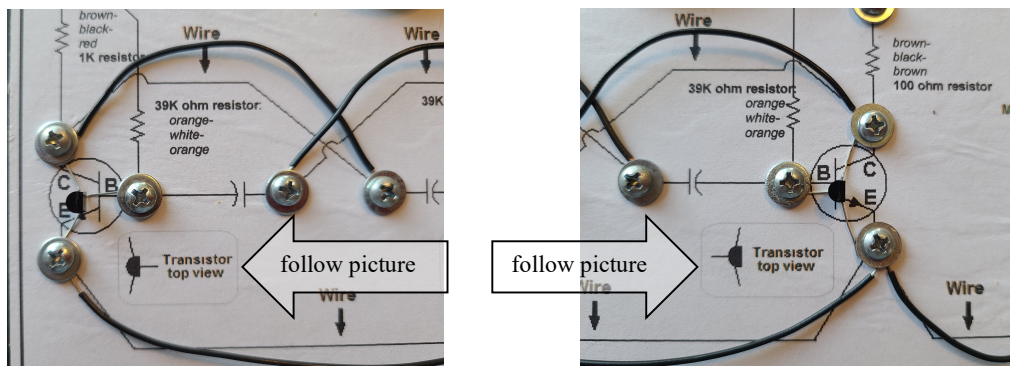
Speaker and battery holder

10. Put the speaker wires under the screws near the speaker picture (the colors don't matter for the speaker):

11. Put the red wire of the battery holder under the washer of the top speaker wire (the colors DO matter here)

12. Put the black battery holder wire under the washer on the metal strip and tighten it down completely
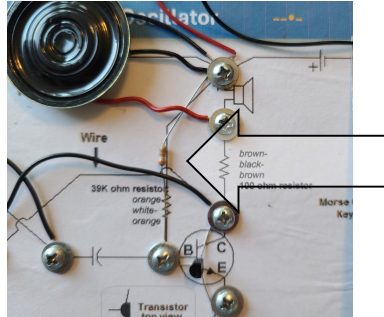
Transistors (small 3-pronged black parts)

13. Bend the transistor wires to match the pictures near where the circles are on the board (inside them are the letters C,B and E). <u>Each transistor is bent differently.</u>

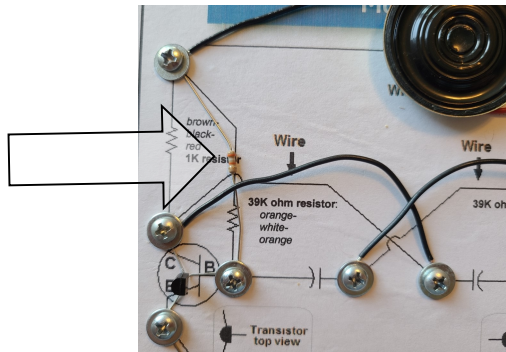14. Put each wire of the transistors under a screw near each letter (B,C,E)

15. Tighten completely the two screws next to the "E" label for each transistor

Matching resistors w/ orange, white, & red stripes

16. Gently bend one 39k ohm resistor (orange-white-red-red stripes) under the top of the wires on the right

17. Finish tightening down the screw holding down the right resistor, speaker wire, black wire and red wire.
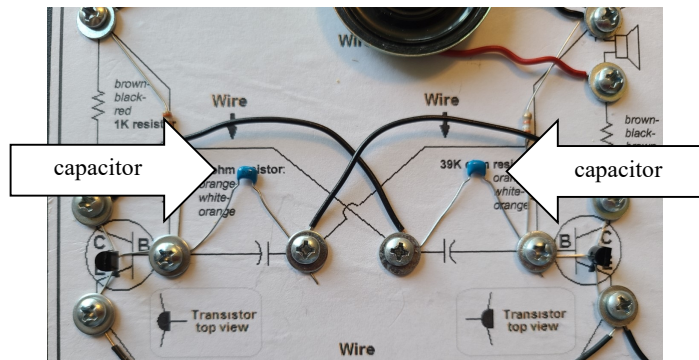

18. Gently bend the other 39k ohm resistor (orange-white-red-red stripes) under the top of the wires on the left
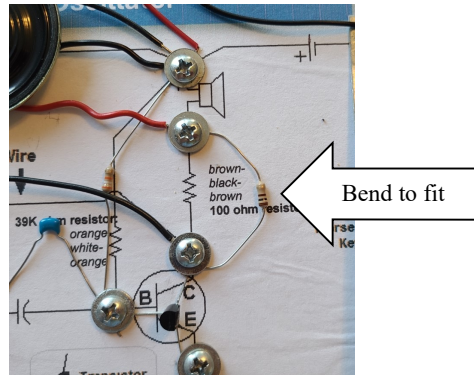

Capacitors (blue or tan parts)

19. Separate the wires of the blue capacitors and put them under the two screws on each side of the –) |- symbol
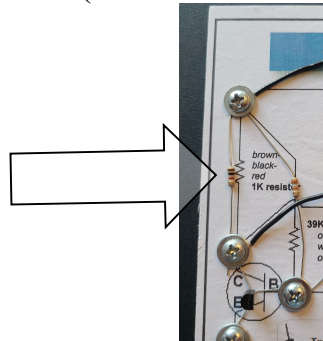

20. Finish tightening those 4 screws

Final Resistors

21. Bend in a "U" shape the 100 ohm resistor (brown-black-brown stripes)
22. Put those wires under on the right side

Bend to fit

23. Finish tightening down those 2 screws
24. Put the 1k ohm resistor (brown-black-red stripes) on the left side of the board

25. Finish tightening down those 2 screws
26. Make sure all the wires are snug under the washers by tightening the screws

Plug the battery onto the battery holder and enjoy doing Morse code!