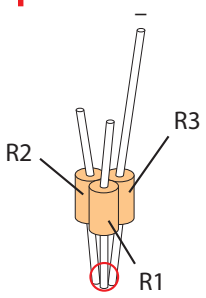
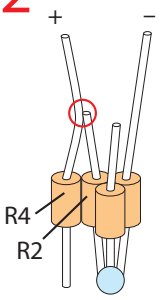
1



Arrange R1, R2, and R3 as shown. Clip leads to about 1/2" except for R3. The long lead of R3 will be the negative terminal. Solder all three resistors together where indicated.

Fox's Li-Po voltage alarm. Distribute to anyone you like, as long as no fee is charged.

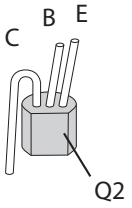
2



Solder R4 and R2 as shown. Clip the other lead to about 1/2". The long lead of R4 will be the positive terminal.

This isn't the best configuration, just the way I built it.

3

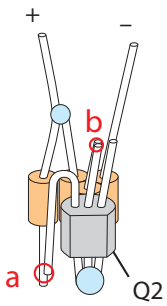


C, B, and E indicate the transistor's collector, base, and emitter.

Prepare Q2 by bending the collector lead as shown. Do not clip the leads until you are ready to solder them in the next step.

Check your transistors! It's easier to start over from scratch than to replace one.
Also remember that some transistors have different lead arrangements.

4



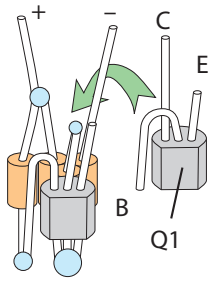
Attach Q2. Clip leads as necessary.

(a) Solder the collector of Q2 to the free lead of R4.

(b) Solder the base of Q2 to the free lead of R1.

If you make the solder joint low enough at a, you won't disturb it in step 6.

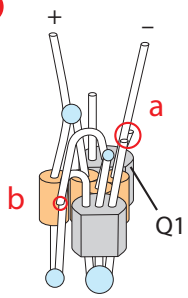
5



Prepare Q1 as shown. It will be attached behind the assembly. Bend the base lead forward so that it will reach over the top to the collector of Q2 (attached in the previous step).

Email me if you have questions or comments. deneb@bobdbob.com

6



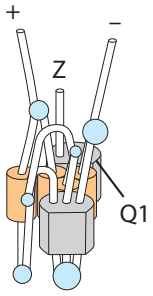
Attach Q1. Don't clip the collector.

(a) Solder the emitter of Q1, the negative terminal (free lead of R3), and the emitter of Q2.

(b) Solder the base of Q1 to the collector of Q2.

You'll have better results with a low-wattage iron.

7

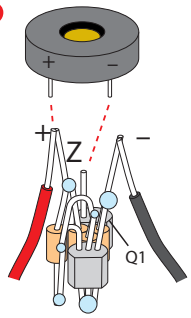


The collector of Q1 is the Z (buzzer) terminal.

At this point, you can apply heat-shrink tubing to insulate the circuit if you don't intend to pot it (potting is recommended.)
Check for shorts and bad solder joints.

I'll build you one of these if you really really want me to. $10 assembled and tested?

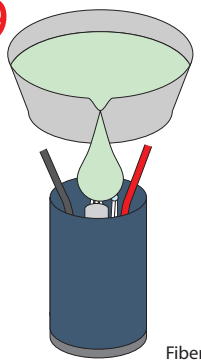
8



Connect the buzzer using wires or by directly attaching the module. The positive (+) terminal is connected to the battery and the positive terminal of the buzzer. The negative (–) terminal is connected to the battery only. The buzzer (Z) terminal is connected to the buzzer's negative terminal. Test the circuit at this point.

No voltmeter? A fresh 9V battery should set it off. A 9V in series with a 1.5V should not.

9



The assembly can be made water- and vibration-resistant by potting it. Make a form by wrapping the buzzer with electrical tape or shrink tubing (being careful not to short any connections). Next, pour epoxy or paraffin wax into the form, covering all metal surfaces. Be sure to check for leaks while the potting hardens.

Fiberglass resin works too, as does rubber cement. Don't use Jell-O.

10

Test the alarm once more to make sure it activates at the correct voltage, and install it on the craft. On the Blade CP, you can connect the positive lead to the positive main motor terminal and the negative lead to an unused servo connector on the 4-in-1 unit.

Remember to double-check with a voltmeter once in a while. The alarm is no excuse to abuse your batteries.