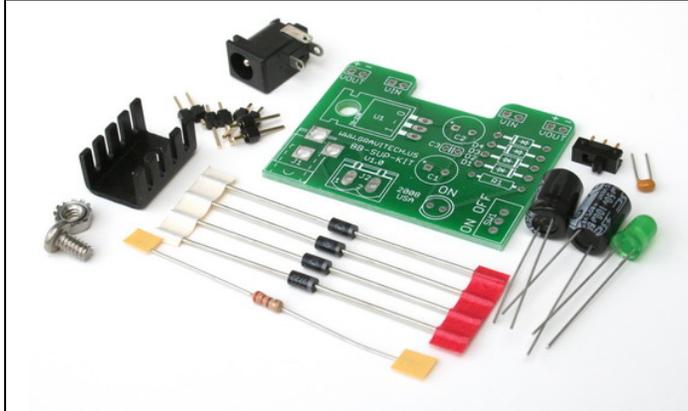




electronic experimental solutions

## BB-SUP-KIT Assembly Instruction

V1.0



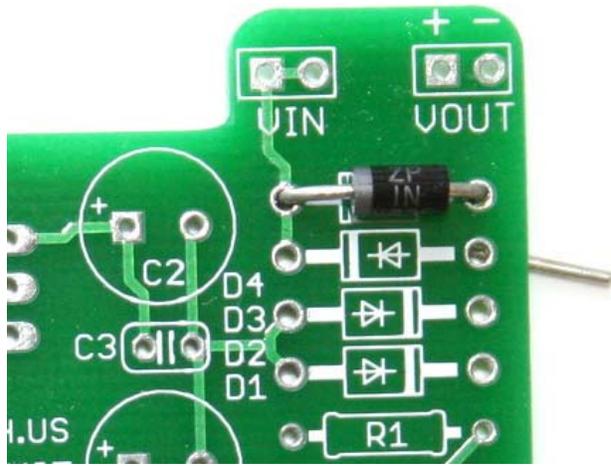
Please refer to Parts List document and verify that you have all of the parts.



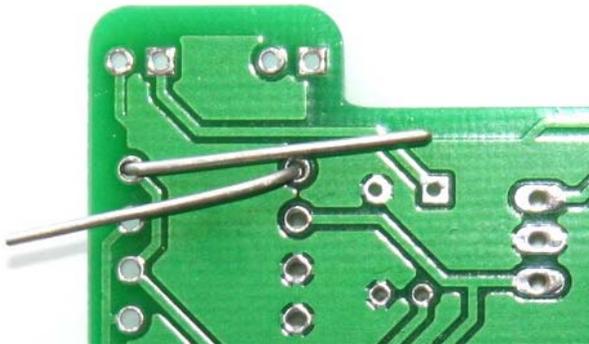
Use lead forming tool and bend diode's leads marked "**1N4005**" using .4 spacing. The lead forming tool can be purchase on our website P/N TOOL-BEND. You can also use needle-nose pliers to bend the leads.



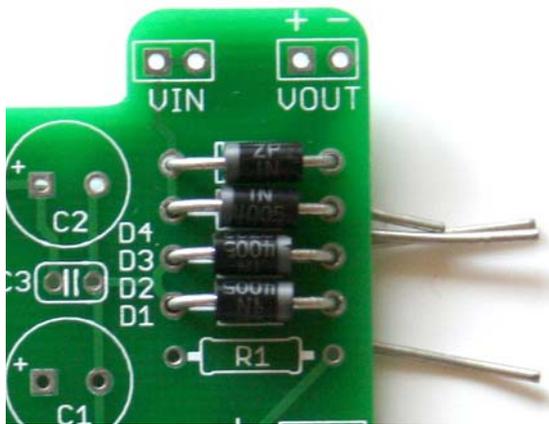
Bend all four diodes.



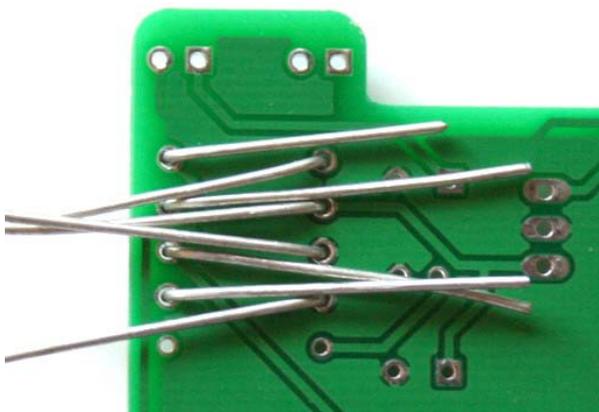
Place a diode **D4** on the PCB so it sits flat against the board, in the correct location as show in the picture. **Diodes are polarized and must be placed in the correct orientation to work.** Make sure the white stripe on the diode matches the white stripe on the PCB.



Once placed, bend the leads toward each other.



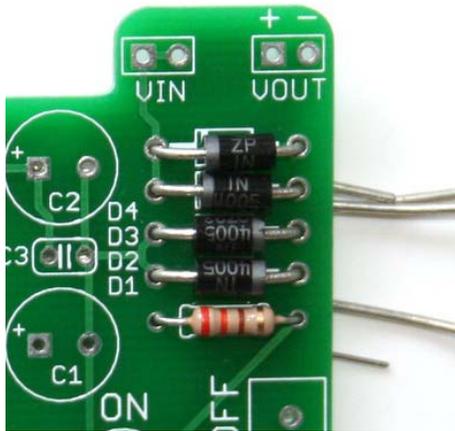
Place the rest of the diodes **D1**, **D2** and **D3** on the PCB. Watch for the polarity!



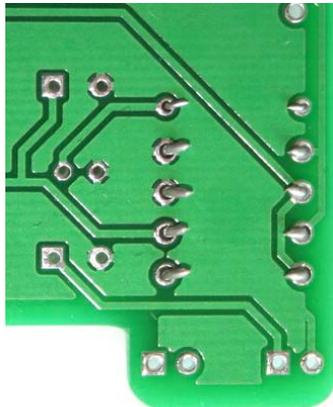
Bend all of the lead toward each other.



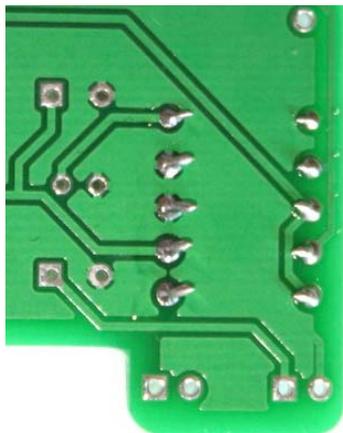
Use lead forming tool or needle-nose pliers and bend 330 Ohm resistor's leads using .4 spacing.



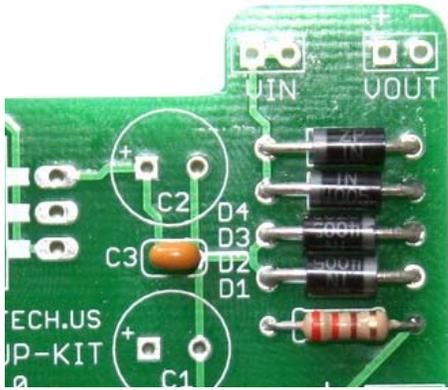
Place the resistor **R1** on the PCB and bend the leads. Resistors are not polarized so they can go either way.



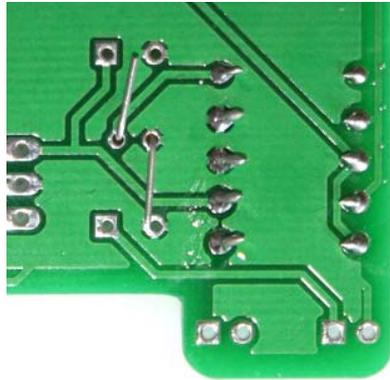
Use the cutters to clip the leads off. Leave the leads about 50 mils (0.050") so the components don't fall out.



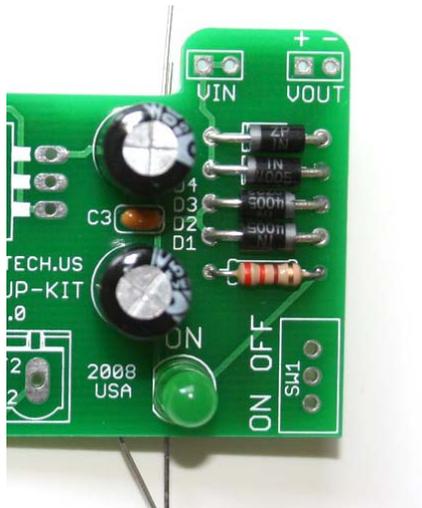
Solder the leads to the pads. Try **NOT** to leave the soldering iron on the board for more than 5 sec.



Place 0.1uF capacitor **C3** marked “**104**” on the PCB. Ceramic capacitors are not polarized.

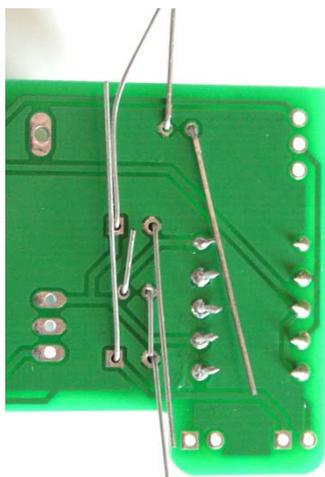


On the bottom side of the PCB, bend the capacitor leads.

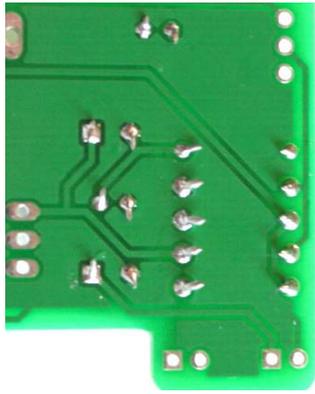


Place the two electrolytic capacitors **C1** and **C2** on the PCB. Electrolytic capacitors are polarized; make sure they go in the correct orientation. Usually, the longer lead is positive and the negative lead is labeled on the body of the capacitor. Place a positive lead into the hole marked with “+”.

Place **LED1** on the PCB. The flat side of the LED must match the flat like on the silkscreen. Make sure it is correct otherwise it won't work.



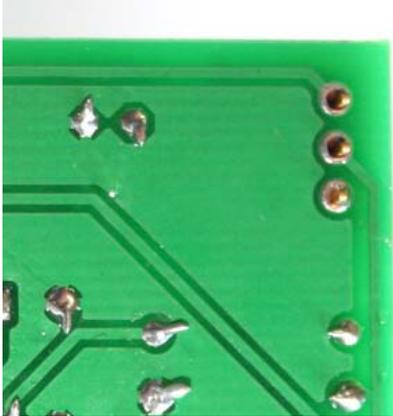
On the bottom side of the PCB bend all of the component leads.



Use the cutters to clip the leads off. Then solder the leads to the pads.



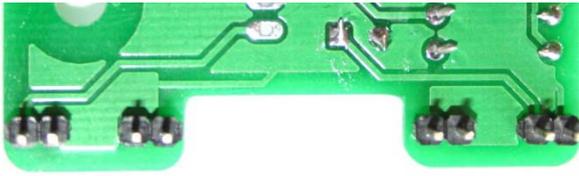
Place **SW1** on the PCB.



Use a finger or a tape to hold down the switch on the top side. Then tag a lead with solder and soldering iron.



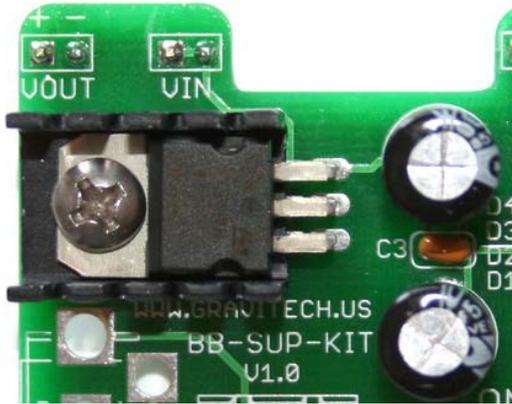
Solder the rest of the switch's leads.



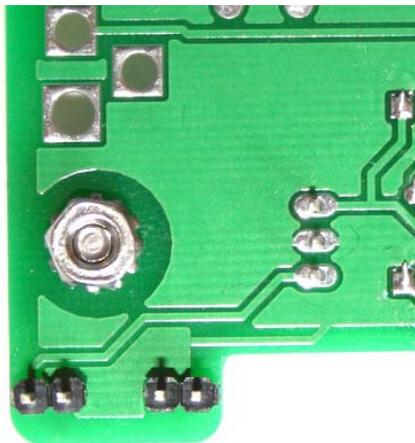
Place all four 2 position header pins **J3**, **J4**, **J5** and **J6** on the bottom side of the PCB.



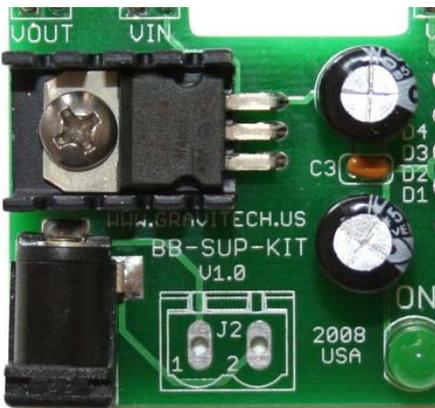
Solder those header pins on the top side of the PCB.



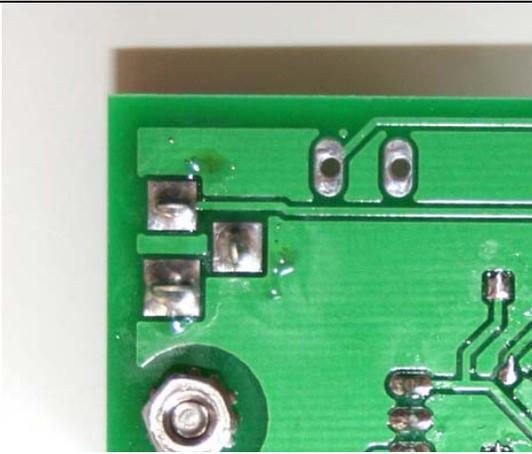
Bend the voltage regulator **U1** with the needle-nose pliers, place it top of the heat sink and tie the screw down with the nut on the bottom.



Solder all three leads of the voltage regulator.



Place **J1** on the PCB.



Solder all three leads of the connector.



Finally you are done!



If you are using bench power supply, 9V battery or battery pack considers using 2 positions terminal block. It can be purchase separately P/N TERM-BLK-2. This terminal block can be place on J2 and now you have a quick way to connect and disconnect the power.



Plug the board on the breadboard and see if everything fit okay.

\* Some breadboard the red color bus might not match the positive output voltage. Please check and wire your project accordingly.