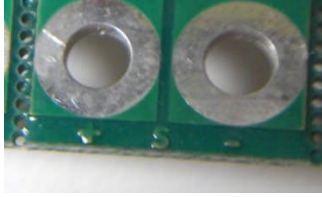
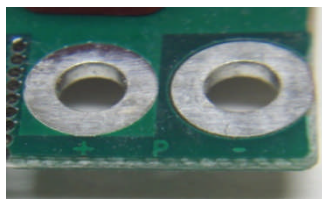


Soldering the "Series" and "Parallel" Circuit Boards



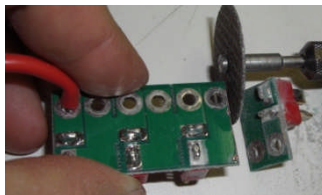
Look very carefully to the top of the circuit board for polarity. "S" is for series. Series boards are used for increasing total voltage going to the motor. (example: one 2100mah 11.1v "3S" pack and one 2100mah 7.4v "2S" pack. $11.1v + 7.4v = 18.5v$ @2100mah or "5S").

SERIES BOARDS: Make sure you always use the same type (Lipo) and capacity (mah) batteries!

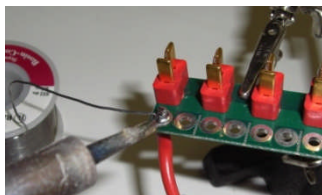


This one has a "P" for Parallel. Parallel boards are used to increase total milliamps of the system. (example: three 2100mah 11.1v packs in parallel. $2100 + 2100 + 2100 = 6300mah$ @ 11.1v).

PARALLEL BOARDS: Make sure you use the same type (Lipo), voltage (v), and capacity (mah) batteries!

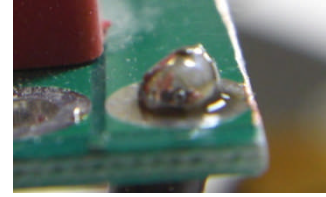


Cut excess plugs from the circuit board with Dremel tool and cutoff wheel.



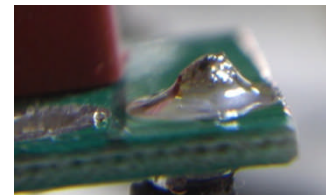
Solder positive and negative leads to outer most holes at the ends of the circuit board. Look at very small (+) and (-) printed on board.

Double check to make sure you solder the positive (red) wire to the (+) hole and the negative (black) wire to the (-) hole.

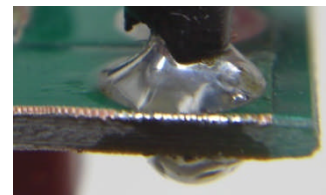


DO NOT DO THIS! This is example of cold solder joint.

This is not acceptable.



This is a good solder joint. Note the smooth volcano shape of the solder.



You should also solder both sides of circuit board like this.



Apply a non-conductive sealant to the top and bottom of the circuit board to prevent shorting of the batteries. Coat the entire board. Do not coat the deans plugs! Here we have used PFM glue. Let sealant dry completely as most sealants are conductive before they completely cure!



Here is a completed system ready to be installed.