

LiPo Protection Circuit Operations Manual

Purpose

The purpose of this circuit is to prevent deep discharge of a 2S (7.4v) Lithium Polymer battery during flight operations.

Assembly Procedure

NOTE: Please following the listed steps in order, and if there are deviations from the images, consult the problem section (forthcoming).

0. Fully charge your battery, ensure it is a 2S (7.4v) LiPo. The voltage should be around 8.4v fully charged.

1. With the switch in position “O”, plug battery into power switch. Ground goes directly to the board, black wire to black terminal. Power from the battery to the switch goes to the end terminal on the switch, power from switch to the battery goes to the middle terminal. There is only one end terminal on the switch.

2. With battery plugged into power switch, plug the switch into the board. Red wire to red terminal: ground coming directly from the battery, and red coming from the switch.

3. Connect the load, in many cases your Arduino, to the output terminals on the board. Red wire to red terminal, black wire to black terminal. When this step is completed, you have completed the power assembly.

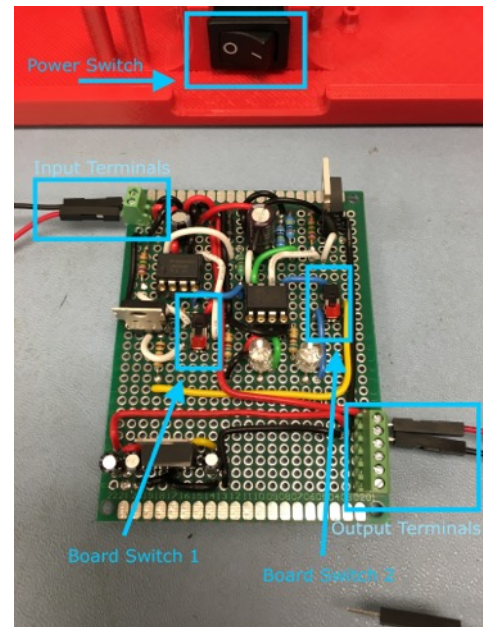


Figure 1.

Operation Procedure

NOTE: Please following the listed steps in order, and if there are deviations from the images, consult the problem section.

0. Complete the Assembly Procedure.

1. With the power switch in position “O”, turn both board switched to RED.

2. Set the power switch to position “I.” The board will NOT power up in this step and you will see no feedback.

3. Set the first board switch to BLACK. You should now see a GREEN LED AND a BLUE LED illuminated. Your board is now powering the load (Figure 2).

4. After you have observed an illuminated BLUE LED, set the first board switch to RED. This sets the system to flight mode.

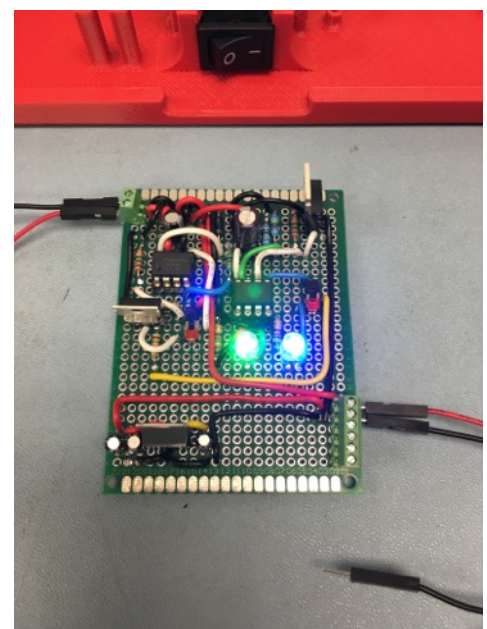


Figure 2.

5. Set the second board switch to BLACK. You should see the BLUE LED turn off, while the GREEN LED remains illuminated (Figure 3). You are now ready to fly.

Recovery Procedure

NOTE: Please following the listed steps in order, and if there are deviations from the images, consult the problem section.

1. Set the power switch to position “O.”
2. Remove the battery leads. The system is now safe to disassemble.

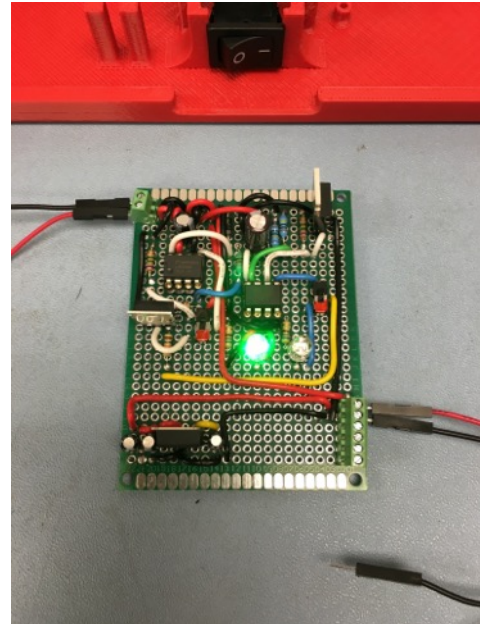


Figure 3.