

The Easy solution to manage the Power Sources in Ez Goto

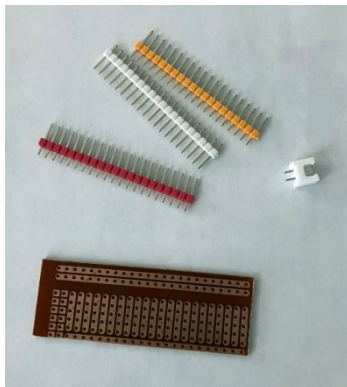
The necessary power supply :

There is several power sources required to build the entire goto system.

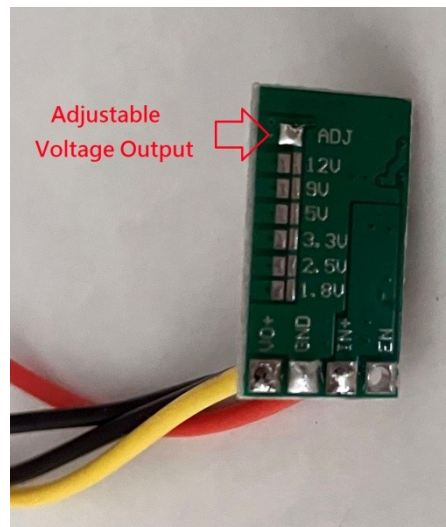
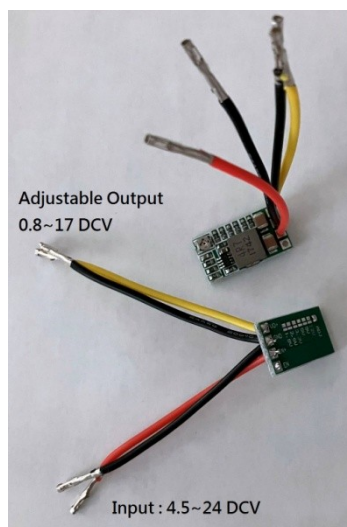
1. 5~15 DCV: Ez goto / Dual Speeds Relay
2. 20~40 DCV : Ref. Voltage / Az / Alt / Focuser motor drivers

We proposed an easiest and "SAFE" all in one solution

(A) Prepare the parts to make an integrated power board



(B) Prepare the tiny DC to DC converter (3W max)



Common ground: Black

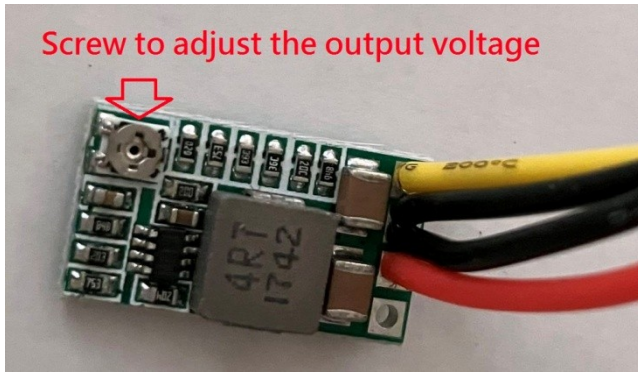
Input: Red (4.5~24 DCV)

Output: Yellow (0.8~17 DCV)

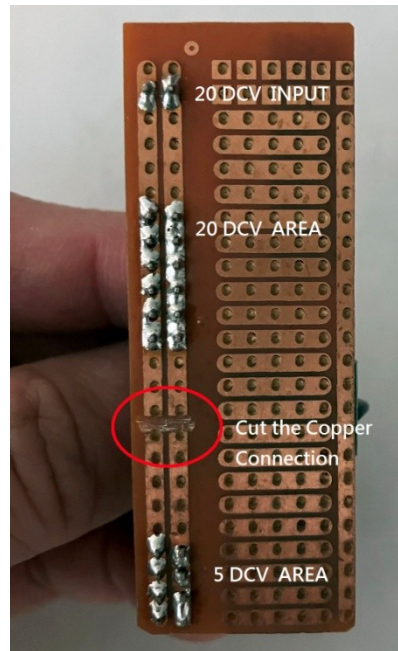
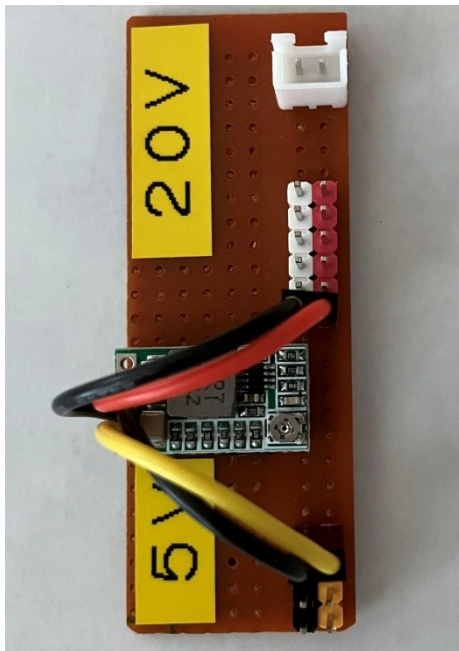
We connect "ADJ" by soldering to set the adjustable output

Adjust the output to be "5.5 DCV" (check the voltage with a multi-meter).

Basically, the gotokit works at least DC 5V. We set little higher (5.5 DCV) in case.



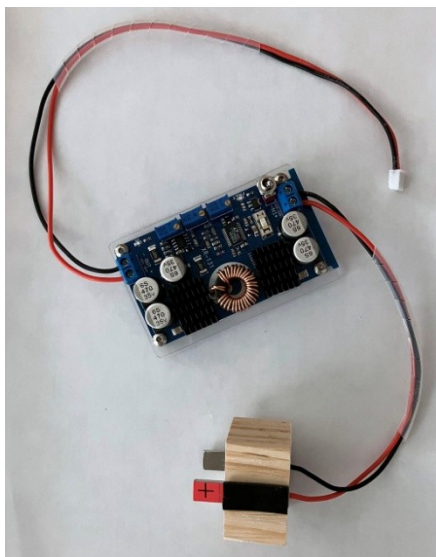
(C) Complete the integrated power board



Be aware to peel off the copper on the back of the board.

Now, One 20 DCV input becomes 4x 20 DCV / 3x 5.5 DCV outputs

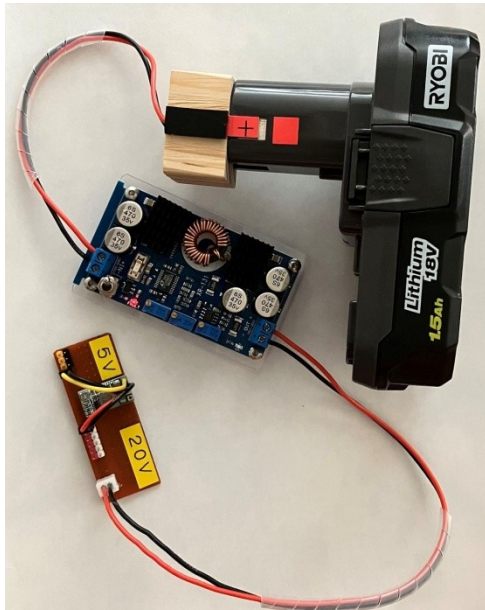
(D) External Power Supply (20 DCV)



I prefer the 80W DC to DC converter at least when connecting the external battery (power tool 18V/20V/24V Li-Ion battery or vehicle 12V battery).

I do recommend adding the DC converter even though you have had the 20V or 24V battery for the **safety issue**.

And, and risk of short circuit does not damage the goto system and batteries.



Finally, I transfer a chargeable Ryobi 18V battery to 20V / 5V outputs.

The power board works well on
 2x nema17 motors and drivers
 1xnema23 motor and driver
 1x Ez goto
 1x realy

(E) Actual installation

