TASKLED

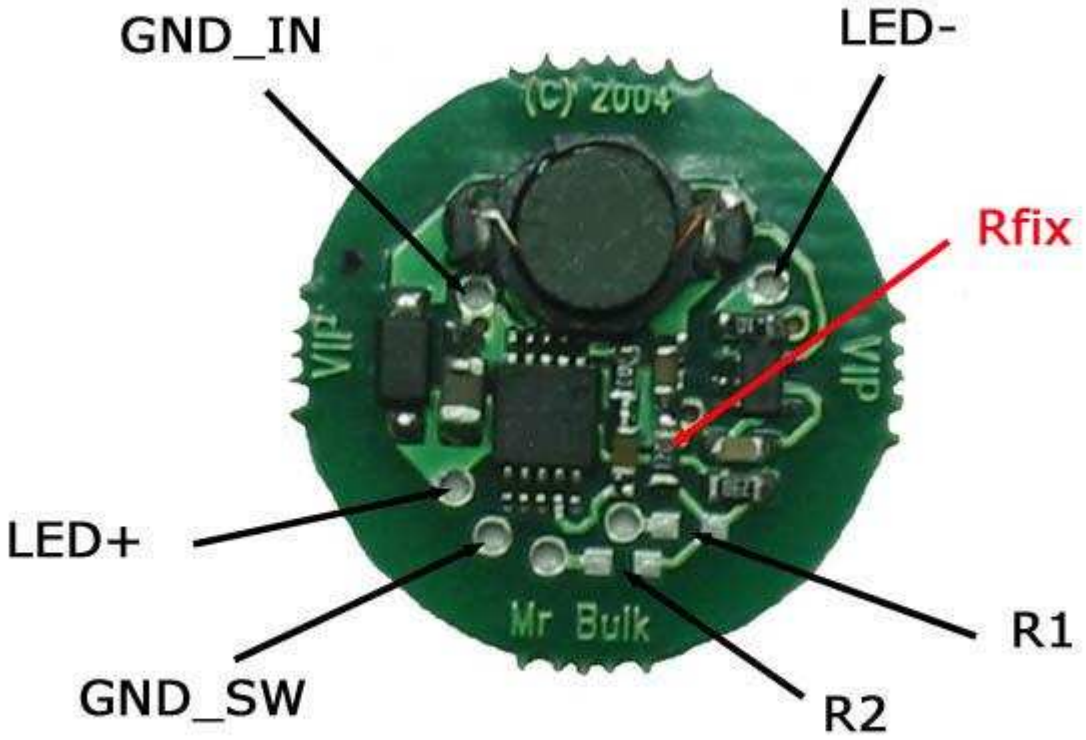
- Limited availability of VIP drivers made by TaskLED for Mr Bulk.
- Available as 750mA or 1000mA output for a Luxeon 3

VIP Driver Hookup Information:

The picture below shows the VIP Driver PCB top view. The connection points are all label.

- LED- is the connection to the Luxeon negative pin
- LED+ is the connection to the Luxeon positive pin
- GND_IN is the connection to the battery negative
- GND_SW is available to go to an optional switch common
- R1 is where an optional resistor can be soldered in to provide a medium level
- R2 is where an optional resistor can be soldered in to provide a low level
- The back of the board has a central circular tinned nubbin (middle of the board), this is the battery positive connection point.

Note: The VIP driver is **NOT** short circuit or open circuit protected. Never power up the VIP driver without a load connected.



The VIP driver is a boost converter. Input voltage must be below the Luxeon Vf to maintain current regulation.

The 750mA VIP driver is recommended for either Lithium 123 or 2xAA NiMH cells (larger capacity/size NiMH cells are fine to use).

The 1000mA VIP driver is only recommended for 2xAA NiMH cells (larger capacity/size NiMH cells are fine to use).

The VIP driver is 0.685" in diameter, components, traces and copper are all within a 0.55" diameter ring.

Optional (for advanced users):

The hole to the left of R1 is where a wire can be run to an optional switch for dimming.

The hole to the left of R2 is where another wire can be run to the optional switch for a further dimming level. If both R1 and R2 are populated and wires run to a switch, then 3 levels are available.

The dimming is implemented by having the switch close contacts between GND_SW and the R1 thruhole. For a further dimming level the switch would be rotated to close contacts between GND_SW and the R2 thruhole. For no dimming the switch would be rotated to a position where no grounding of R1 or R2 thruholes occur.

Dimming equations:

The current regulation scheme allows for dimming by switching an optional resistor (R1 or R2) to GND_SW.

Luxeon_current = 12.5 / (1 + 169K/R)

R = Rx // Rfix (i.e. Rx in parallel with Rfix)

Rfix = 10.7K (for VIP-750)
Rfix = 14.7K (for VIP-1000)

Rx = R1 or R2

The lowest recommended Luxeon_current is 50mA to ensure current regulation stability.