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Breadboard Voltage Regulator

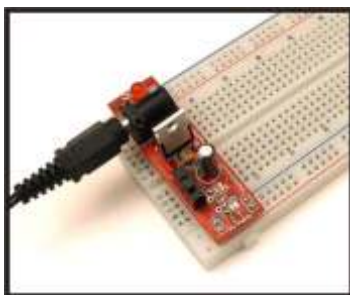
Version 2

Convenient 5V Supply
for Breadboard

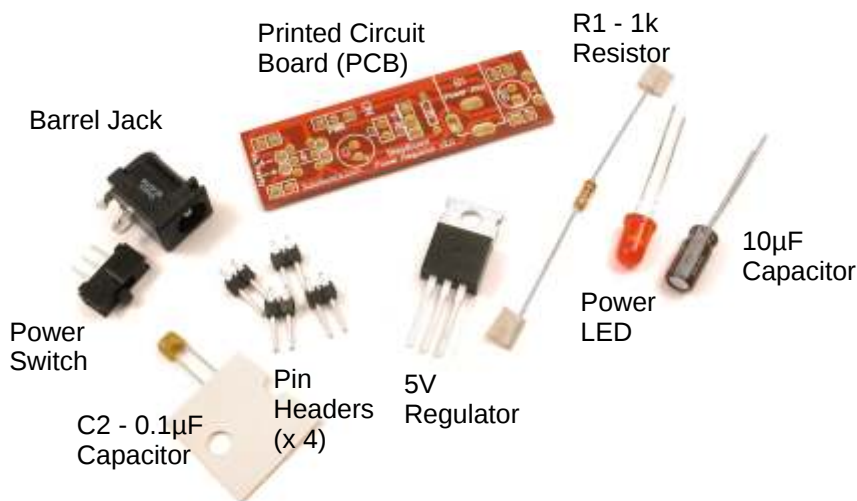
Turn your 6~18VDC “Wall Wart”
adapter into a regulated 5VDC @
0.5 Ampere supply for your
breadboard experiments!



- Power Switch
- LED Power Indicator
- Polarity Configurable
- Handy like you won't believe!



PARTS LIST



- 1 x Printed Circuit Board
- 1 x Power Switch
- 1 x 2.1mm DC Power Connector Barrel Jack
- 1 x C1 - 10µF Electrolytic Capacitor
- 1 x C2 - 0.1µF Monolithic Capacitor
- 1 x 5V Voltage Regulator
- 1 x 1k Resistor (Brown/Black/Red)
- 1 x Red Power Indicator LED
- 4 x Pin Headers

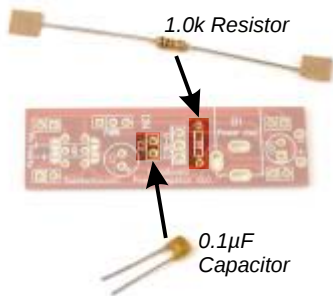
You'll find the BVRv2 to be a pretty handy addition to your workstation. It's an easy kit to build, but it is still a good idea to quick read through the instructions *just to make sure* you're building it right.

✓ **Don't know how to solder? No problem!**
Download our free soldering tutorial online at:
<http://www.hvwtech.com/resources.asp> ✓

We strongly suggest you inventory the parts in your kit to make sure you have all the parts listed. If anything is missing, contact Solarbotics Ltd. / HVW Technologies for replacement parts information.

Disclaimer of Liability - a.k.a. Legalese to make the lawyers happy

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1. Resistor & 0.1µF Capacitor:

Remove the tape, and bend the leads of the resistor over, and insert it into the position labeled 'R1'. Solder it in from the other side, and snip the excess leads.

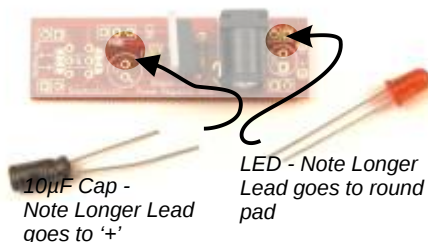
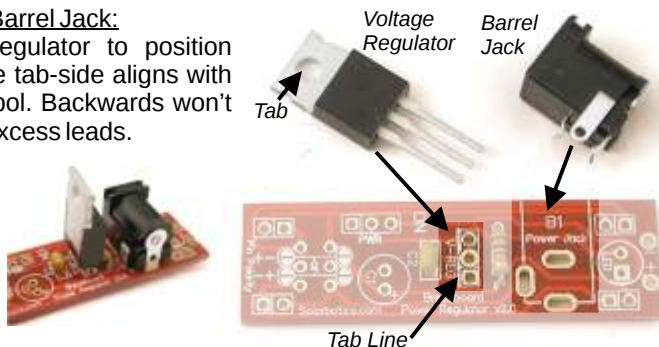
Do the same for the 0.1µF capacitor into position 'C2'. It doesn't matter which way these parts are installed - they are polarity insensitive.

2. Voltage Regulator & Barrel Jack:

Solder the Voltage Regulator to position 'V-REG'. Make sure the tab-side aligns with the fat line on the symbol. Backwards won't work! Then trim off the excess leads.

Snap the Barrel Jack into position 'B1' and solder it into place.

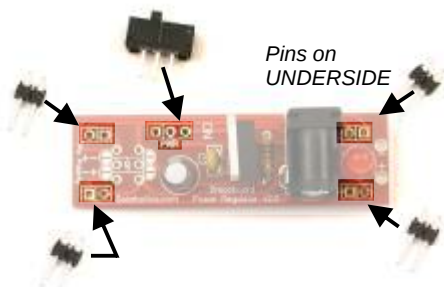
Finished Install



3. 10µF Capacitor & Power LED:

Install the 10µF electrolytic capacitor into position 'C1'. Position is critical (otherwise, *poof*). Make sure the longer lead goes into the pad marked (+). Confirm by checking that the stripe on the side of the capacitor is nearest to the "PWR" label.

Similar plan with the LED - longer lead goes into the round pad. You can confirm by noting the little notch on the LED is on the side of the LED symbol with the line (near the square pad).



4. Power Switch and Breadboard Pins:

The Power Switch simply mounts into the position 'PWR'. Nothing difficult.

The breadboard pins are a bit more difficult, as they go on the underside, and are harder to hold while soldering. If you are confident, push the long side of the pins into your breadboard so they match the holes in the PCB, and solder them in while the breadboard holds everything in alignment. Otherwise, carefully solder them in as straight as you can by hand.

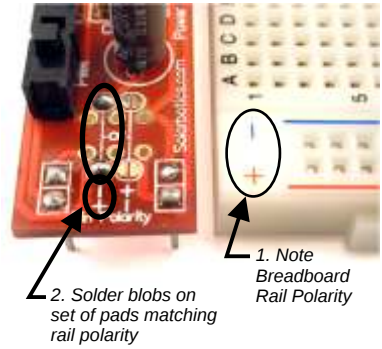
5. Configuring Power Rails:

THIS IS IMPORTANT - Forget to do this, and your BVRv2 won't work!

Choose which side of the breadboard you want your BVRv2 to mount (here we use the left side). Note the polarity of the breadboard rails (+ on bottom, '-' on top).

Find which set of pads on the BVRv2 match this arrangement, and put a blob of solder across the little ½ moons.

If you plan to switch the polarity of the power on the rails (kinda *dangerous*), you can mount part number SWT7 on the pads between the blob pads. *Do not* put any blobs on the pads if you do this. This is generally not a recommended modification!



Power your BVRv2 with any DC power source rated 6~18 volts (35VDC max!). The power regulator will warm when powered with over 12V (that's ok).

If you don't want to use it on a breadboard, use the solder pads labeled "+ -" points on the end nearest the barrel jack for 5V regulated power output. Enjoy your BVR!

Visit us online for more info and neat things:

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