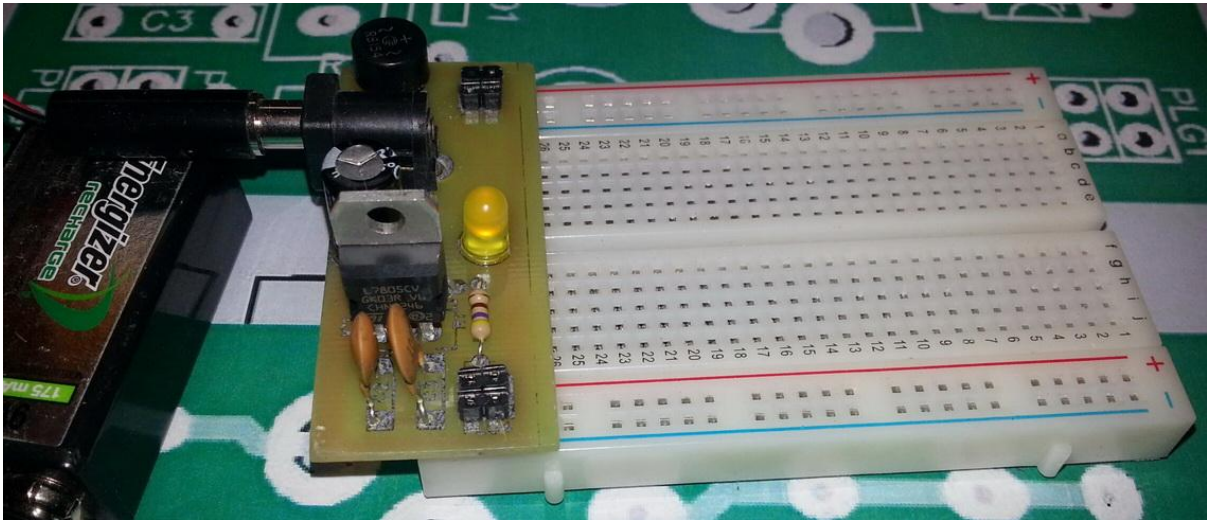


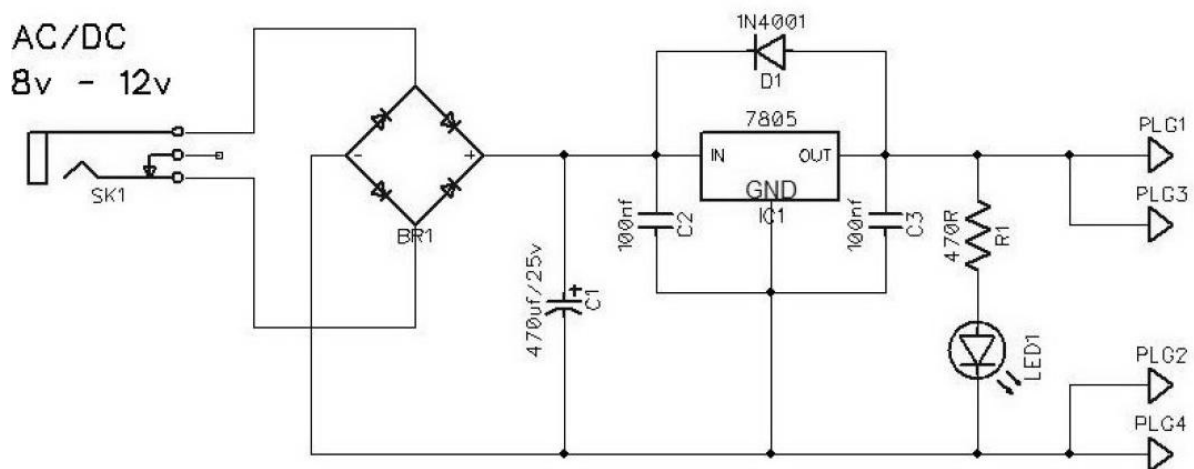
Breadboard Power Supply

By Kevin Mc Donald ZS6KMD

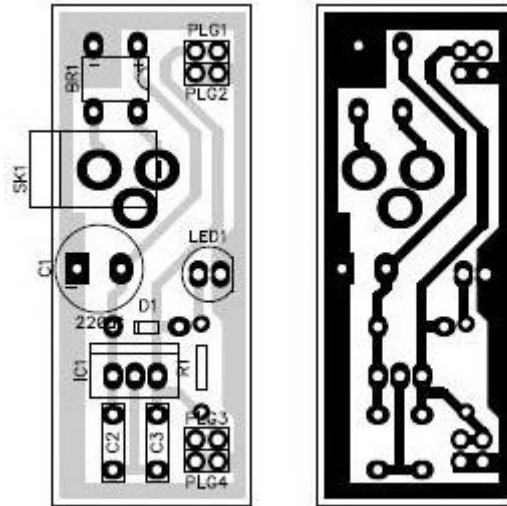
This month we bring you a quick little project for your Breadboard Projects. Once again it is quite simple to pop over to a hobby shop or search the web for an online store that sells these items and procure one for a few dollars. But that is not in the essence of being a Ham is it?



The circuit diagram for this little project shows the standard configuration for the LM7805, a 1A – 5V linear regulator. All we have done is to design a simple layout on PCB, add a rectifier so that you can use either a DC or AC 12V adapter and feel safe that you won't let the smoke out of any projects.



A PCB has been designed for you to build the project on or you can make use of Vero Board. Using toner transfer and the iron on process replicating the PCB is quite simple.



Components:

A rather small component list for a valuable piece of equipment.

1 X LM7805, 1 X 470uF25V capacitor, 2 X 100nF capacitors, 1 X 470R resistor, 1 X LED, 1 X 1A mini bridge rectifier, 1 X DC socket, 1 X 1n4007 diode, some header pins and of course the PCB.

Construction:

Construction is straight forward. Insert the diode D1, and resistor R1 first, once soldered in place, insert the capacitors 1 through 3, make sure that C1 is oriented correctly, the longer leg is the positive side of the capacitor and is on the inside of the board. Insert the bridge rectifier and DC socket. Lastly, take four sets of two header pins and push the pins as far as they will go into the plastic strip without them falling out. Place these on the top of the board and leave the pins extending below the board quite a way. Solder in place and check all connections.

Your 5V Breadboard PSU is now complete and can be used to power you development projects.

As always the PCB files are available on my website as listed below...

PCB files: <http://www.zs6kmd.za.net/MiniPSU.rar>

Happy Building

73 de Kevin ZS6KMD