

BREADBOARD BENCH

I found a nice breadboard in McGill's garbage a while ago and decided to convert it into an electronics bench. My main goal was to have a powerful power supply with regulated outputs combined with a breadboard and some useful connectors so I can build circuit prototypes easily. Also, I needed a new bench power supply since mine was lost in the Lunar Excavator shipment.



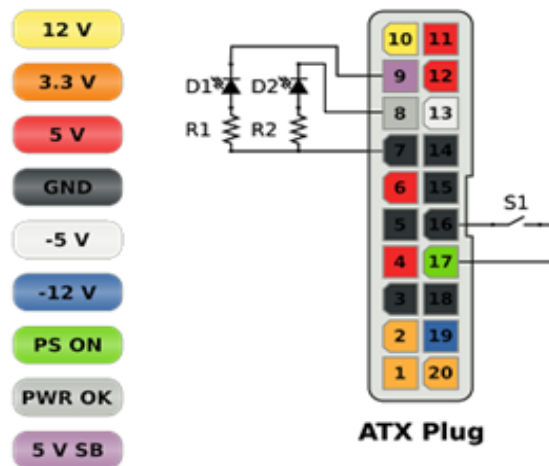
Materials

- A nice breadboard found in the garbage
- A computer power supply
- An ATX motherboard power connector
- Two LEDs with resistors for current limiting
- A switch
- Some cables

Putting it Together

I wanted to build a modular system so I can replace the pieces easily, especially the power supply (since it comes from an old computer and may not work for very long).

I connected a switch and two LEDs (actually, my switch comes with an integrated light so I used only one LED) to the PS ON, 5V SB, and PWR OK pins so I can have an indicator of the power supply (PS) being plugged-in (D1) and another for the PS being turned ON (D2). The diagram below illustrates the connections.



I also connected the 12, 5, 3.3, 0, -5, and -12 V lines to the bottom-left banana connectors in order to have easy access to the power lines. Now, I can connect any ATX power supply to the box and it will work, which makes replacing a defective power supply very easy.



After making the electrical connections, the switch and LED(s) have to be mounted to the box by drilling appropriate holes.

This was a fairly easy build, with the only difficult part being to find the appropriate materials in the garbage.

I may add a USB hub or some USB connectors as well in order to have more ways of connecting things to the box.

Source: <http://www.carlitoscontraptions.com/2008/12/breadboard-bench/>