Make a bench power supply mostly from recycled parts

by **newtonn2** on October 13, 2009

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Intro: Make a bench power supply mostly from recycled parts

This instructable will show you how to make a very good bench power supply using mainly recycled parts. This is the really the "mark II", you can see "mark I" here.

When I finished my first bench power supply I was really happy, and used it very often, almost every day, until one day it decided not to work anymore, :(so... I realized I had to do it all over again, including the not that easy drilling on the metal of the ATX, etc. So this time I'm making a bench power supply that you can replace the ATX in no more than 2min.

Last time I did not take any pictures of the process, so I could only do a slideshow of the finished product, but this time I took lots of pictures, so I did this Instructable, which I hope you'll like.

May you decide to go ahead and build your own?... I would like to take the opportunity to say that I will be more than happy to help you with any questions you have, and also I will love suggestions so I can improve either this instructable or the bench power supply itself.

As the title shows, with this instructable I want to encourage people to recycle. There are lots of things around the house or even in the streets, that you can take components off, and use them later to make so many interesting things. I used as many recycled parts as I could for this project, and if you do the same, you could have a very powerful and COOL! bench power supply for almost nothing.

OK.. lets start with a view of what we will be making....

step 1: Materials and tools

Here is a list of the materials and tools I used for this project. Some of them are optional, like the analogue panel meters, as you could use any multitester to check ether the voltage or amps.

The same with tools, you may want to use a different tool, just go ahead, and also make any suggestions so we all can learn.

Don't be scared of the quantity of materials, this project is not really difficult to make, trust me, if I've done it, anybody can.

MATERIALS:

1).- (1)**Bread box** .(*Recycled* , you could use any other enclosure that you can fit the ATX in with enough space)

2).-(3) **Switches** (2 single way switches *recycled* from old heaters, and a 2 double way switch *recycled* from an OHP)

3).-**Cable connectors** (*Recycled* from old amplifier, and from old TV)

4).-(1) **ATX** (*Recycled* from old computer)

5).-(3) **PC Drive Molex to SATA Power Adapter** (ebay £1.50, view)

6).-(1) **20-24 Pin ATX power adapter for Computer PSU** (ebay £2.77, view)

7).-(1) **USB connector** (Optional, *Recycled* from old computer)

8).-(2) **LED's** (red, green) , (*Recycled* from old computer)

9).-(2) **5K Potentiometer** (One *Recycled* , and the other one bought for £1.35, view)

10).-(2) **Potentiometer knobs** (*Recycled* from old amplifier)

11).-(1) **empty can of coke** (*Recycled*)

12).-(1) **8cm computer fan** (*Recycled* from bench power supply mark I)

13).-(1) **Magnetic Catch** (Bought £1, view)

14).-(1) **IEC cable** (The cable that connects the computer to the power socket, *Recycled*)

15).-(1) **IEC connector** (*Recycled* from bench power supply mark I)

16).-**Piece of trunking** (Optional)

17).-**Some cable ties.**

18).-(1)**Fridge magnet** ("Stolen" from the fridge)

19).-**Some wires** . (*Recycled* from extension lead)

20).-(2) **8cm Fan grills** (*Recycled* from old ATX)

21).-(2) **Screw eyes** .

ELECTRONICS:

1).-(1) **LM350** Adjustable Voltage Regulator (ebay £0.50)

2).-(1) **560 Ohm** Resistor (*Recycled* from old radio)

3).-(2) **1N4001** Diodes (*Recycled* from old radio)

4).-(1) **0.1 uf** Capacitor (*Recycled* from old radio)

5).-(1) **10 uf** Capacitor (*Recycled* from old radio)

6).-(1) **Heat sink** (*Recycled* from old radio)

7).-(1) 1**0W 10 Ohm Wirewound resistor** (Maplin £0.48)

TOTAL COST = **£7.60**

If you want to use analogue meters like me, and you also want to make the continuity tester, you will also need in addition to the previous list:

1).-(1) **Voltage panel meter** (Optional £6 ebay, view)

2).-(1) **Amp panel meter** (Optional, £6 ebay, view)

3).-(1) **6V Mini Relay** (Optional, £1.31, view)

4).- (2) **9v PP3 Battery box** (£1.29 each, view)

5).-(1) **9v Buzzer** (Optional, £1.99, view)

6).- (2) **9V PP3 Batteries**

7).-(1) **1N4001 Diodes** (Recycled from old radio)

TOTAL COST = **£16.59**

GRAND TOTAL= **£ 24.19**

TOOLS:

1)-**Drill**

2)-**Hot glue gun** .

3)-**Dremel** (With a cutting disc and round sander)

4)-**Hole saw** (about 7cm)

5)-**Epoxy**

6)-**Sand paper**

7)-**Solder**

8)-**A Dymo** (Optional, I don't have one, my wife did the labels for me at work, but you could print them and tape them)

note: In this list of materials I specified where I found some of the parts I've used. I'm not saying that you need to buy an OHP or a home heater to get the parts, but maybe you already have some of these things at home and they don't work any more, or you can find then on the street, or in garage sales or in markets like the one you see in the picture below.

Image Notes
1. I love this second hand market, you can get lots of things for your projects for almost nothing.

Image Notes
1. Good connectors for this project

Image Notes
1. This amp may not be working, but if you are after the knobs of the potentiometers, or the connectors at the back, you don't really mind if it doesn't work.

Image Notes
1. Good connectors for the constant voltage output.

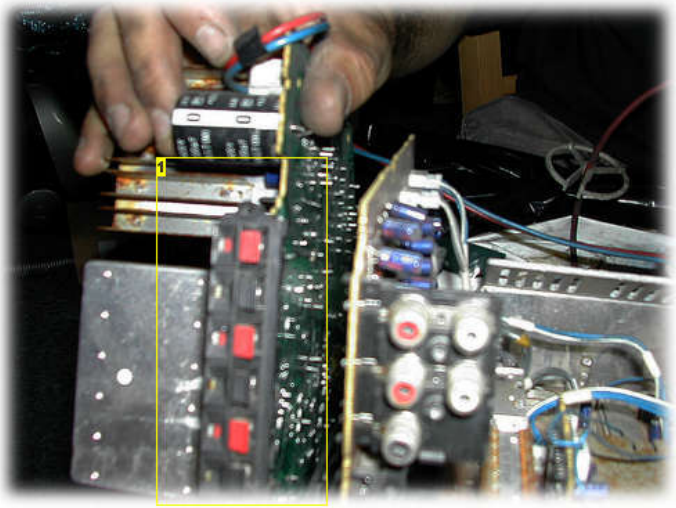


Image Notes
1. These are the connectors I used for the constant voltages outputs. They came

Image Notes
1. Two of the switches I used came from a heater like this one.

from a TV I found on the street. (sorry for the low quality picture, is the only one I have of the connector before removing it from the circuit.)

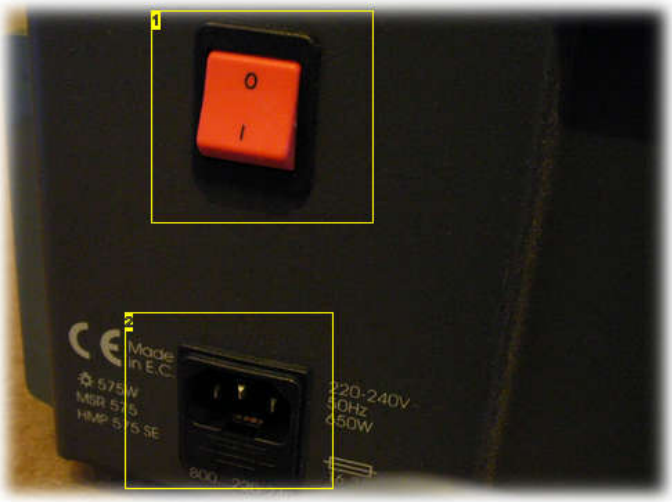


Image Notes
1. Another nice switch from an OHP.
2. IEC connector. This one even has a fuse.

Image Notes
1. I took the LEDs from an old PC front panel.

Image Notes
1. ATX from old computer. The ATX I am using is rated 300w.

Image Notes
1. And.. of course the enclosure, in this case I used a Bread Box similar to the one in this picture.

step 2: The enclosure

For my bench power supply I'll be using a bread box. This one had a glass door, so the first thing I did was replace the glass with a wood panel. I added this step in case you face the same problem, but if your enclose is ready to go, skip to next step.

One thing to take into consideration when choosing an enclosure is that if it is made of metal, not only will be difficult to make the cuts and holes, but you'll face the problem of the conductivity of metal, so if your connectors are not isolated that'll become a problem. Also make sure the ATX will fit inside.

1) .- Take the glass door out, and place it on top of the wood panel so you can draw the lines with a pencil and cut an exact size wood door.

If you want to make sure you don't do wrong cuts, you could always place the glass door on top of the wood panel and hold it with a clamp (***see pics***).

2) .-I used the same handle for the door so I had to use some sticky stuff remover and a knife to get it out of the glass.

Image Notes
1. Make sure you can fit the ATX inside.

Image Notes
1. This is what I used to remove the handle from the glass door.

step 3: Making the front panel

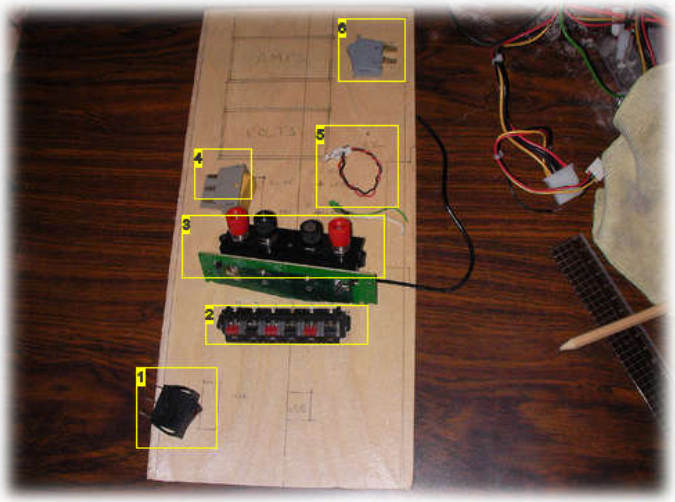
1) .- With the door outside the bread box, mark everything that is going in there, like the cable connectors, switches, potentiometer (when marking where the potentiometer is going to be, pay attention to the size of the knob), LED's, etc...

2) .- Once you're happy with the distribution of everything, start cutting with the dremel, using the cutting disc.

Make sure everything fits through the holes (you could use the circular sander with the dremel or sand paper if it needs to be a bit bigger)

3) .- Then something I forgot to do is erase all the pen marks and writing. If you do it now, it would be a lot easier than once all the connectors are fitted.

4) .-Now hot glue everything from the back of the door.(***see pics***)



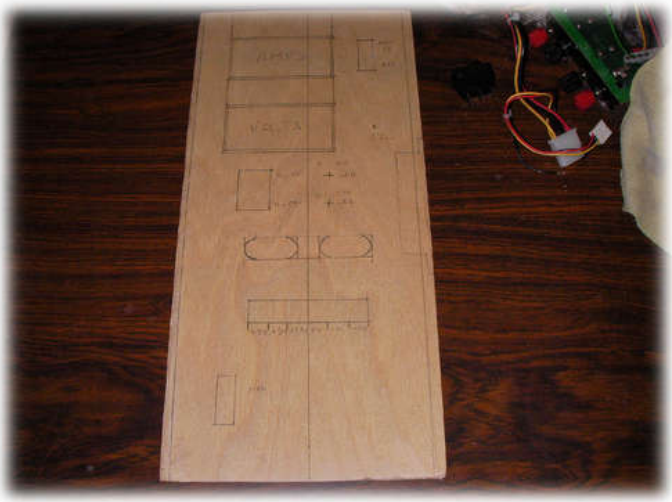


Image Notes
1. Mains switch
2. Fixed voltage connectors.
3. Voltage regulated connectors.

4. Two way switch
5. LEDs.
6. Ammeter switch.

Image Notes
1. Dremel with the cutting disc.

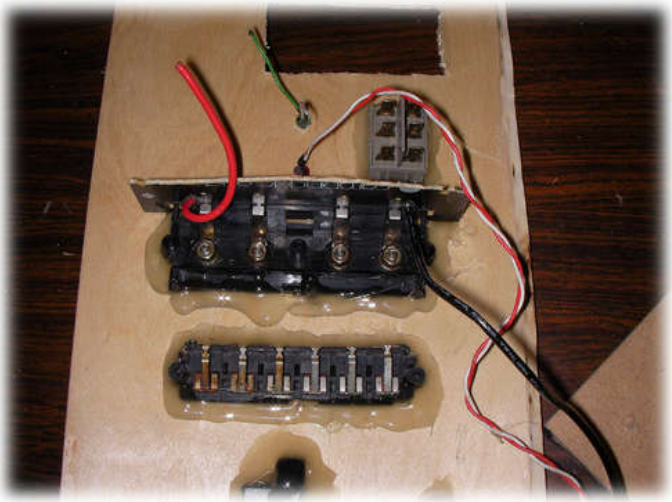


Image Notes
1. Hot glue everything on the back side.

step 4: Placing the ATX

When deciding where to put the ATX, take into consideration not to block any of the vents or the fan. In this case I decided to place it upright as you can see in the picture.

The goal of this project is to be able to change the ATX really quickly and without having to take out any screws, so I cut 4 pieces of wood and then hot glued them to the sides of my enclosure after marking with a pen where they'll go, that way I can slide the ATX in or out really easily.

I also fit a self adhesive trunking to protect the power cable.

Image Notes
1. Find the best position for the ATX.

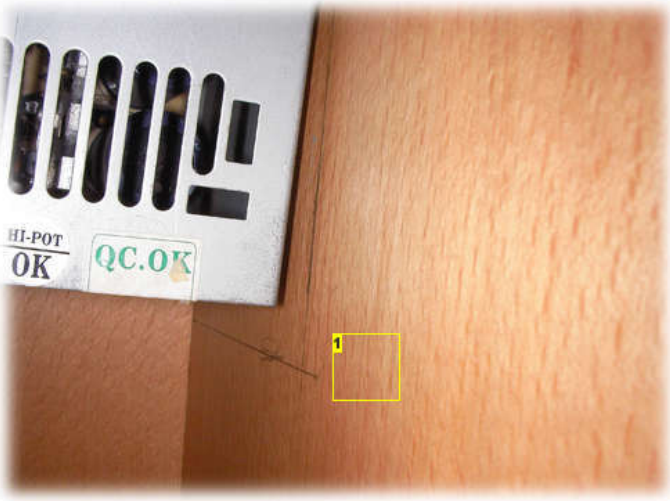


Image Notes
1. Mark where the wood holders are going to be.

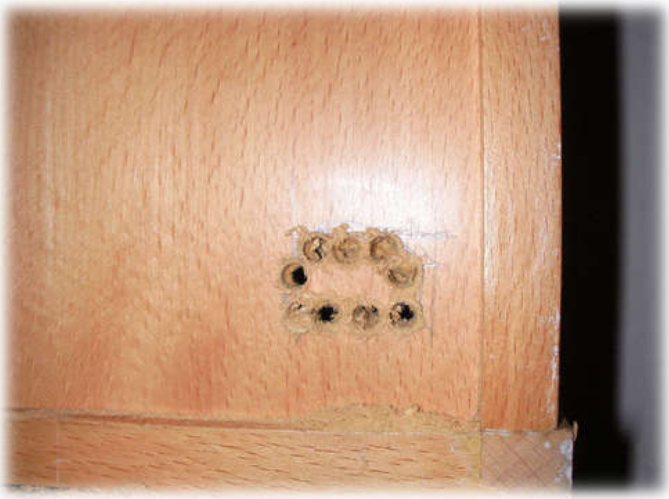
Image Notes
1. Hot glue.

step 5: Power connector (IEC connector)

Mark where you want to put the IEC connector. I placed it at the back as this will help me not to put the unit to close to the wall which will stop the air flow.

1) .- Mark the side of the connector with a pen, drill some holes near the line you drew and finish the job moving the drill one side to another until all the holes merge together.

2) .- Make sure it fits in, and fit it with two screws (Later we'll take it out again to solder the cables)



step 6: Ventilation

Ventilation is very important in this project as you are fitting an ATX inside an almost sealed enclosure. If you don't do anything about ventilation, the ATX will get really hot and eventually will stop working.

1). - In this case as the ATX is upright, I fitted one fan at the bottom of the enclosure and made a hole on the top of the enclosure, as the ATX is always taking air out of the PC. So the fan at the bottom will blow air inside which will get through the ATX and then will get out at the top vent.

2) .- To make sure the air that is blown from the ATX finds its way out, I decided to help it a bit by cutting a coke can and fitting it on top of the enclosure. (***see pics***).

3) .- And then I glued a fridge magnet to the can with some epoxy (this will stop unwanted noise from the vibrations)

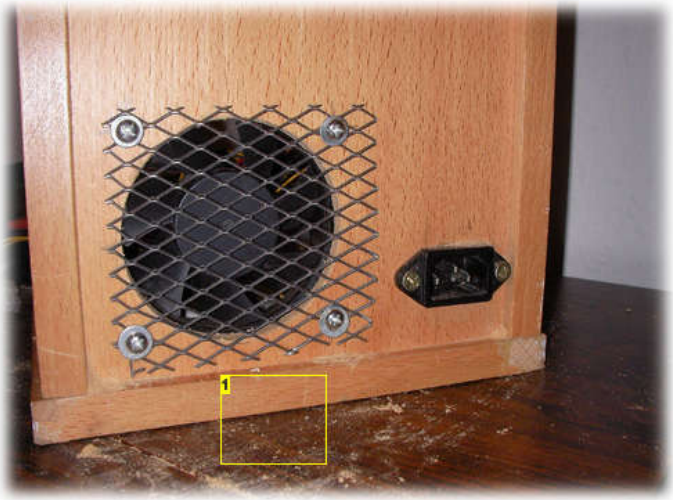


Image Notes
1. I used this metal grill because I did not have other fan grill.

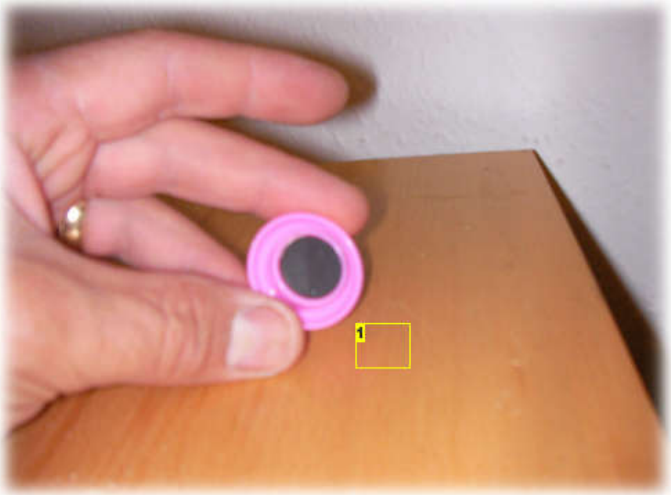


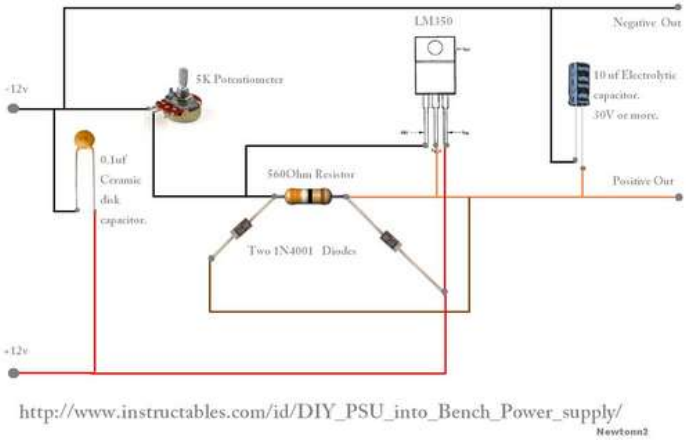
Image Notes
1. Fridge magnet.

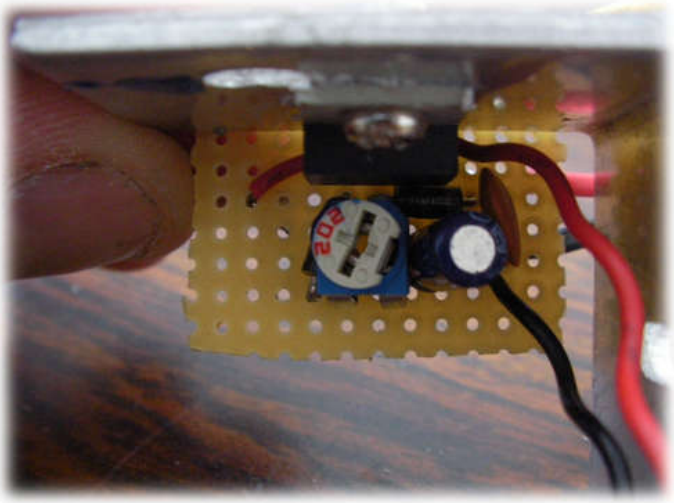
Image Notes
1. The magnet glued to the coke can with epoxy.

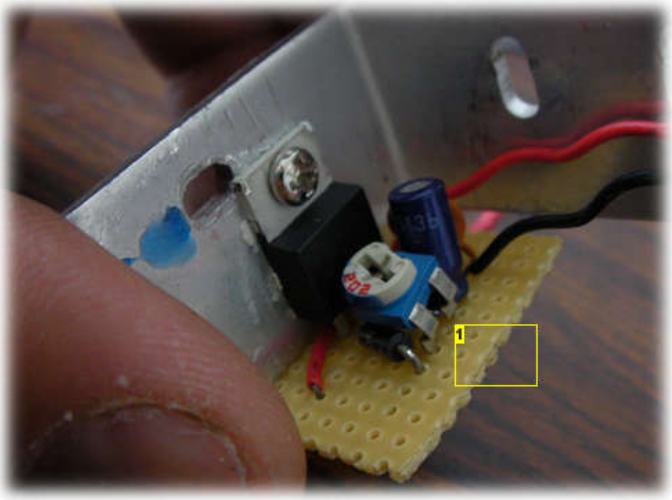
step 7: Making the voltage regulator.

The voltage regulator I made is based on a really good instructable you can see here. The only thing I changed was the voltage regulator itself, for a more powerful one: the LM350 3A.

The schematic is in that instructable but I did a graphic schematic to make it a bit easier. You can see also my circuit on its heatsink.







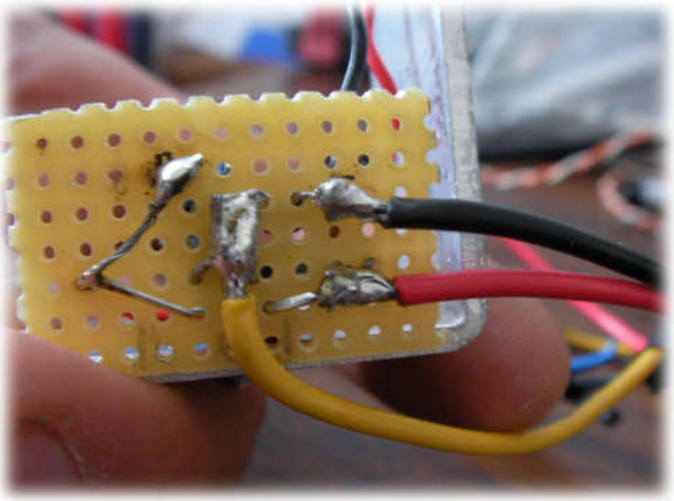


Image Notes

1. I used a variable resistor because I did not have a 560Ohm resistor.

step 8: Soldering the cables, schematic

1) .- Now is the moment to solder all the cables on the front panel, and here is a PDF file and a JPG file of the full schematic.

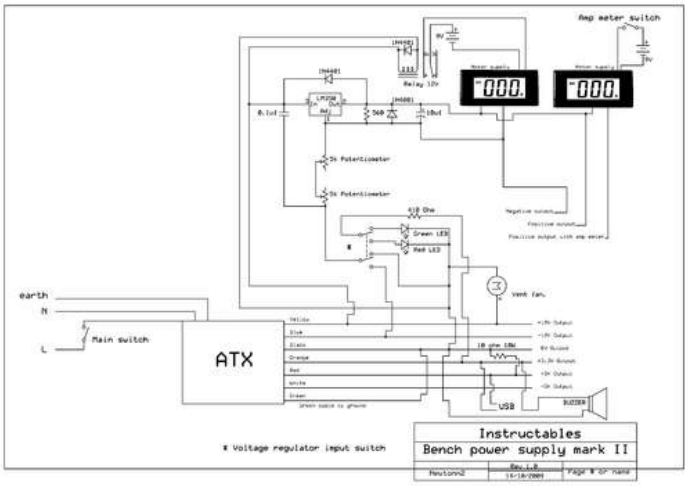
In this schematic there are two 5k potentiometers, that's because my voltage panel meter goes just until 20V but in case I need a bit more, I can use the other potentiometer of 5k on series as a booster. (you could place a switch in series with the potentiometer and open the circuit to give the boost, but it will go straight to the maximum voltage, with this second potentiometer you will be able to control that voltage)

2). - Once you have finished soldering the cables, use some cable ties to make sure nothing will come loose when opening or closing the door.

3). - Glue the door with epoxy, I used wood epoxy.

In the schematic you'll see how I used the double two way switch to swap the negative cable that goes into the voltage regulator. I can use ether -12v or 0v (ground), the reason I've done this is because the -12v is not as powerful as the 0v output. So with setting **1)** I can go from 1.2V to 23V but is limited to 2A, and with setting **2)** I can go from 1.2v to 11V up to 3A (the voltage regulator is 3A) Here is a video were you can see the difference:

To connect the USB output you just need to use the ground for the negative and the +5v for the positive. (if you're not sure witch cables to use see here)



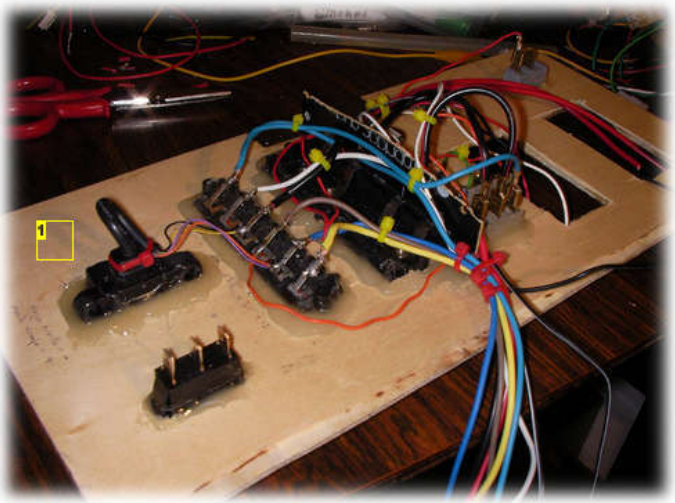


Image Notes
1. USB connected to ground and +5v.

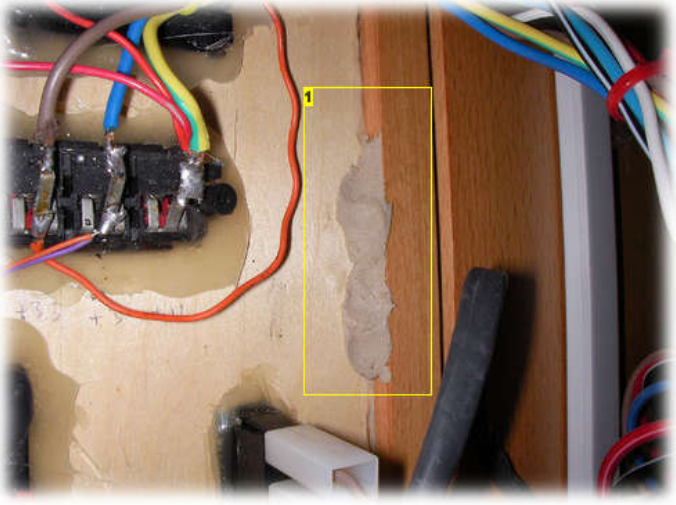


Image Notes
1. I put some more epoxy to reinforce the door.

File Downloads

BPS Mark II.pdf ((612x792) 242 KB)
[NOTE: When saving, if you see .tmp as the file ext, rename it to 'BPS Mark II.pdf']

step 9: AC Power cables

1). - Solder the AC power cables. Be really careful not to leave any of these cables exposed as they could be really dangerous. I used some heat shrink to cover the wires.

2). -You could also fit the voltage regulator near the fan so it cools down as the air flow inside.

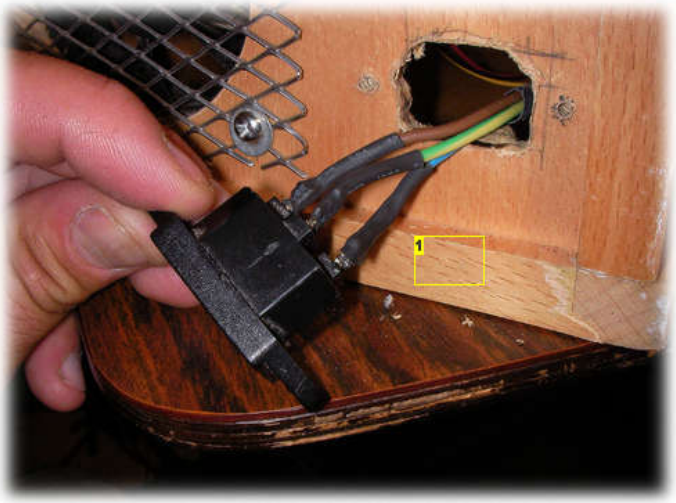


Image Notes
1. I used some heat shrink tube to isolate the cables.

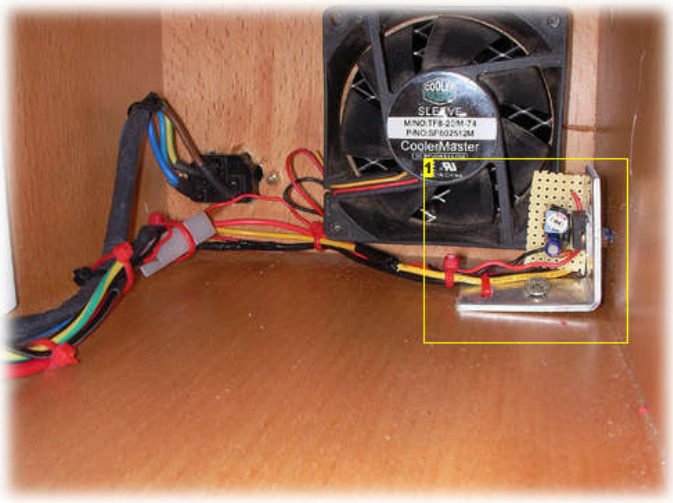


Image Notes
1. The voltage regulator near the fan.

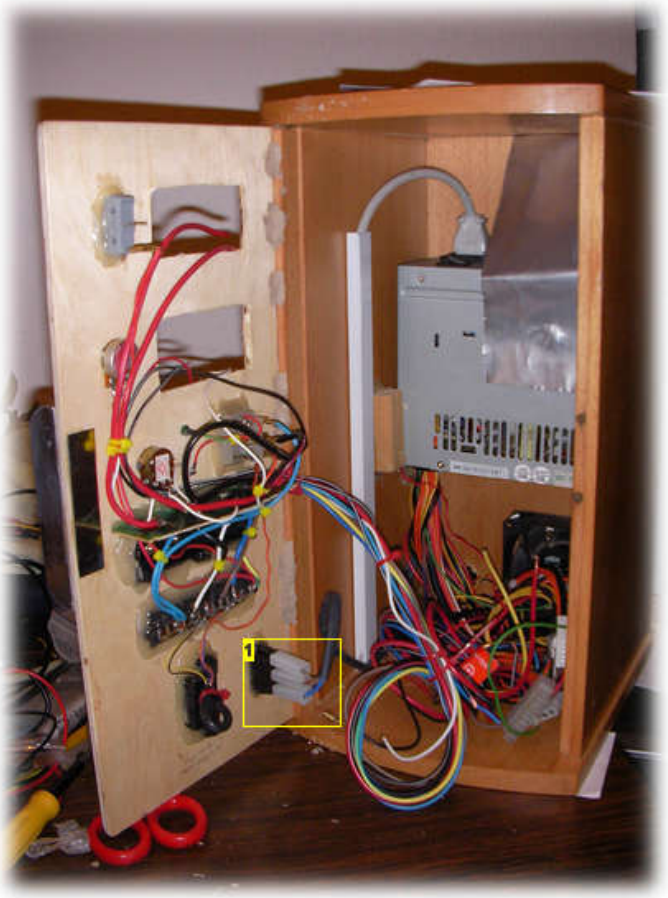


Image Notes
1. This is the main switch, make sure the cables are well isolated. This particular switch has 3 connectors, that's because it has a light that goes on when the switch is in the on position.

step 10: Fitting cables from the door to the inside.

Using a couple of screw eyes, fit the cables with some cable ties, leaving enough cable to be able to open the door freely.

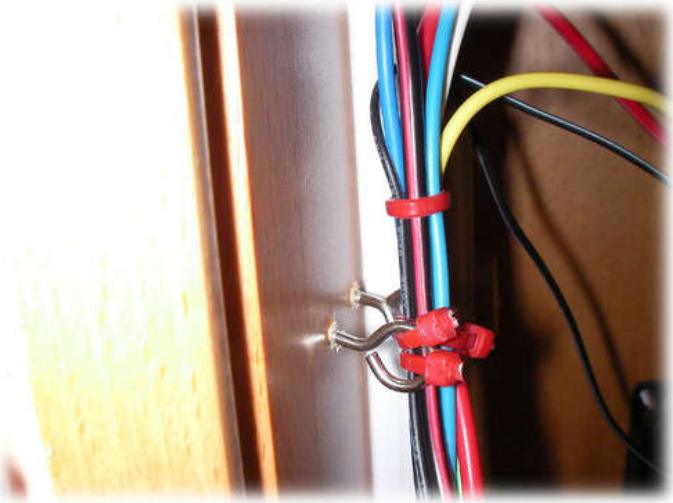


Image Notes
1. Leave enuf cable length to open the door freely.

step 11: The quick release connectors.

1). - Take the molex to sata power adapter and cut them, we don't need the sata bit for this project, but save it for future projects.

2). - Join all the cables together like you can see in the picture. (Some ATX have more than 3 molex connectors, but with 3 you've got more than enough for this project.)

Using a connection block join all the cables. (this is done so if the ATX blows you don't need to cut or solder any cable, just disconnect the broken unit and connect the new one)

3). - Do the same with the 20-24 Pin ATX power adapter. you need to keep the side with 24 pins.

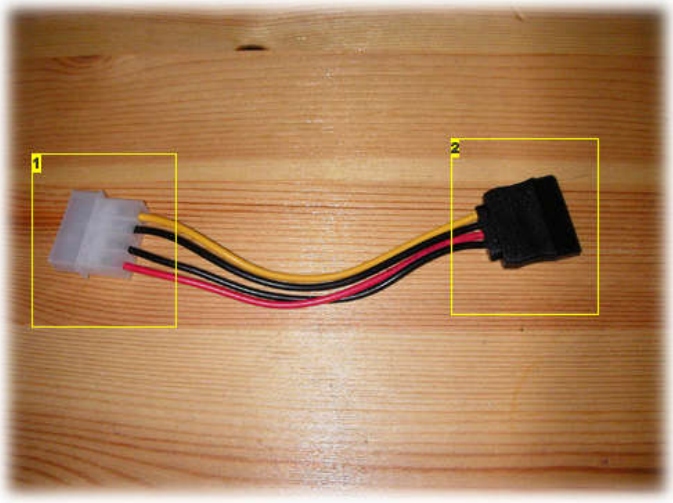


Image Notes
1. Molex (the connector we need for this project)
2. Sata connector.

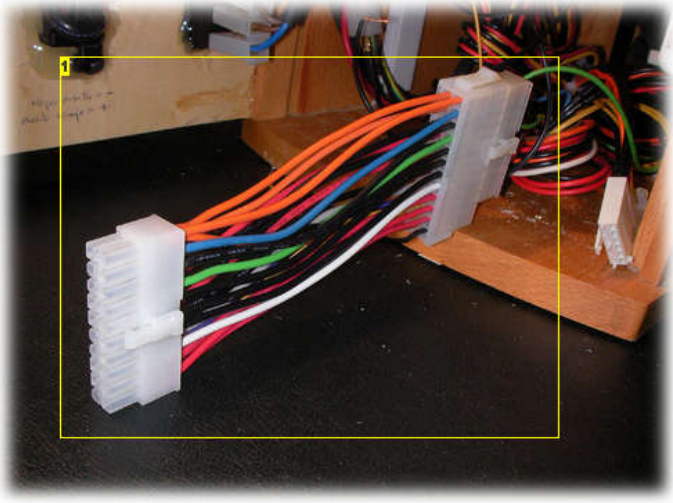
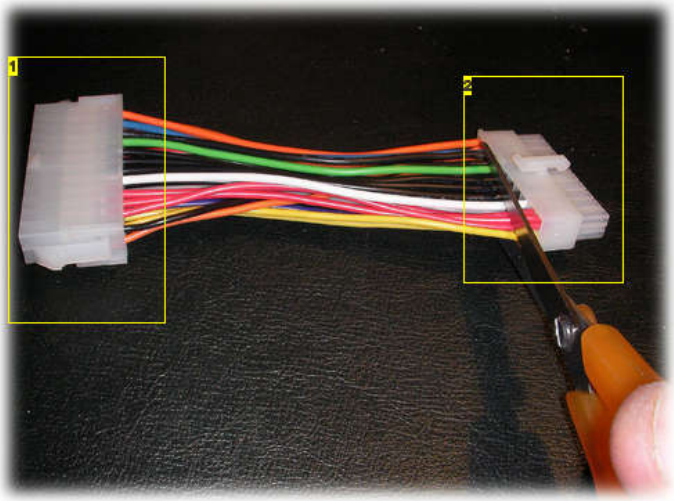


Image Notes
1. This is the20-24 Pin ATX power adapter. It's a good idea to try it before cutting it, just in case it's not the right one.



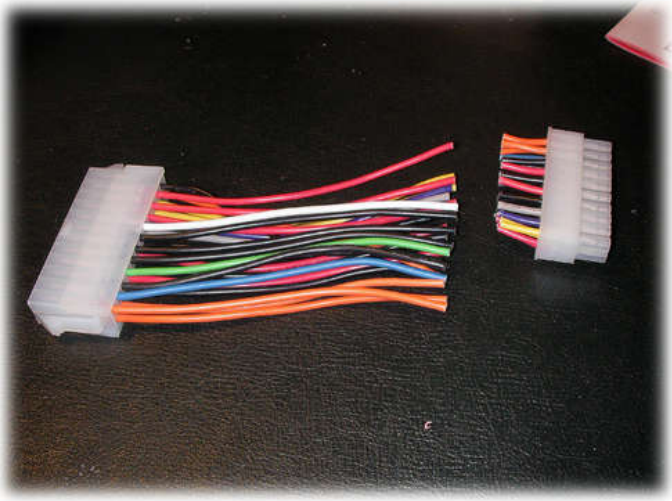
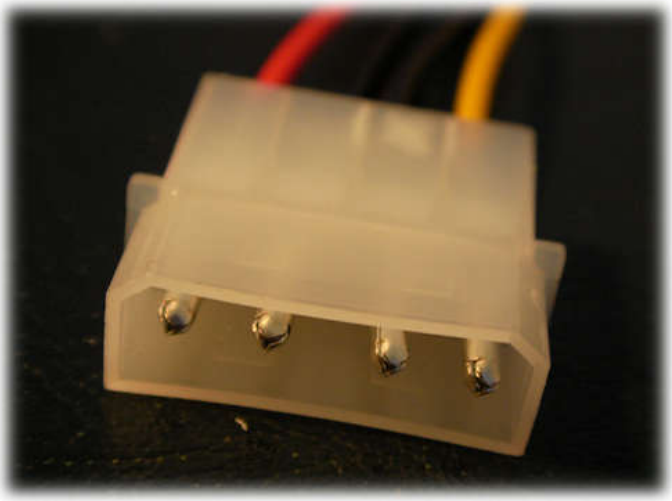
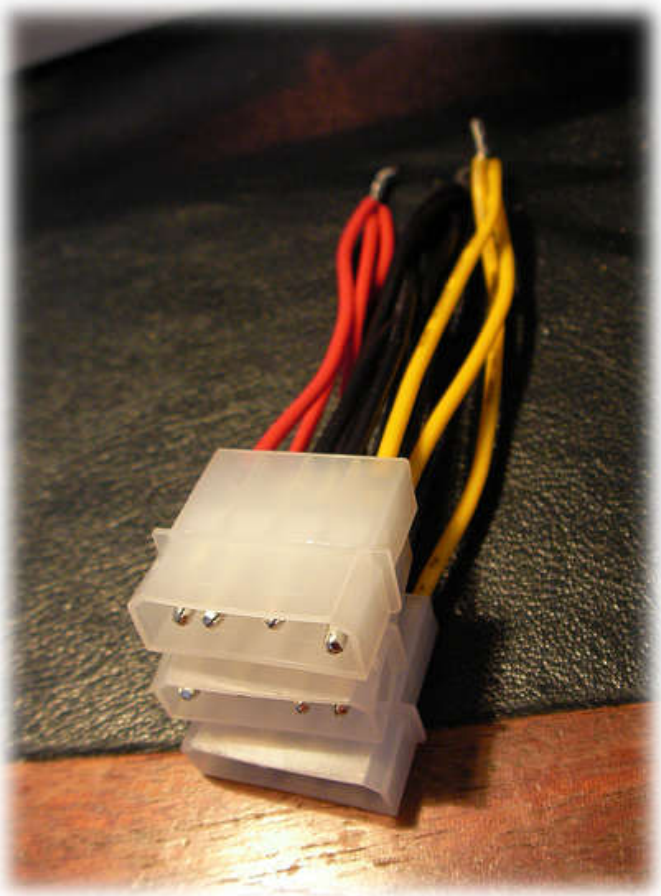


Image Notes
1. This is the side we need, the side that connects to the ATX.
2. You can cut really close to this connector, I don't think you can use it really for anything.





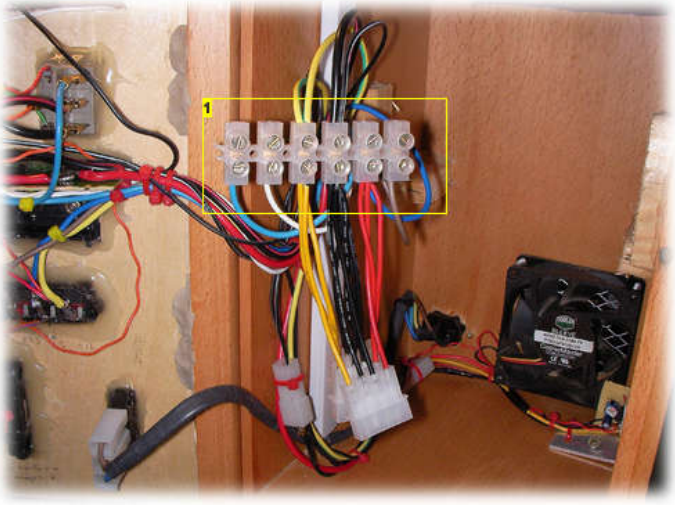


Image Notes
1. Connection block.

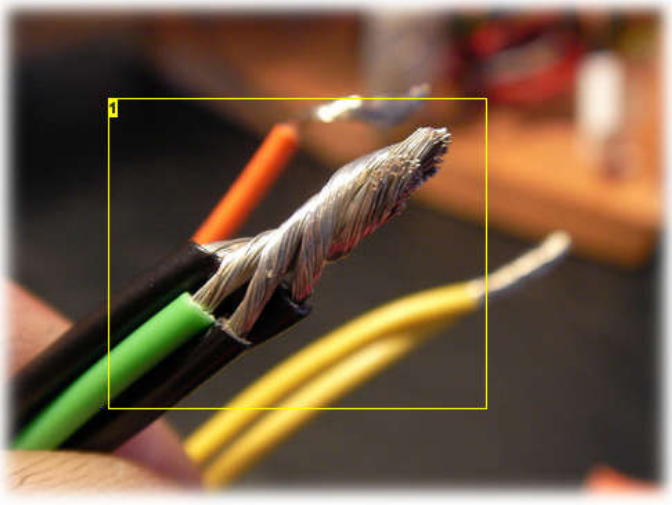


Image Notes
1. Connect the green cable with ground (black cables).

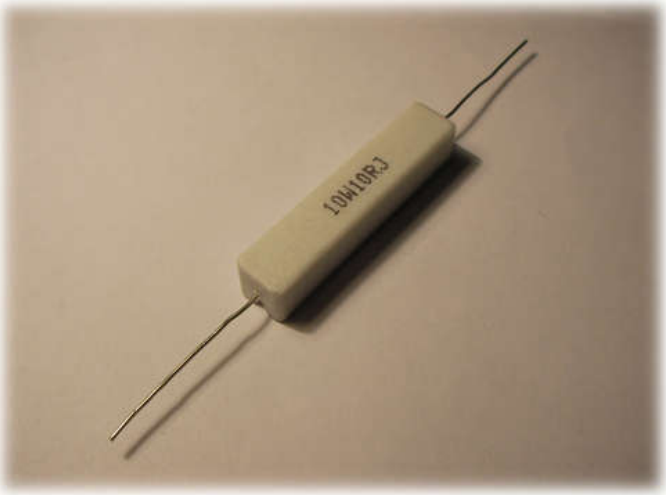
Image Notes
1. Still waiting for the meters from HK. I hope they get here soon!

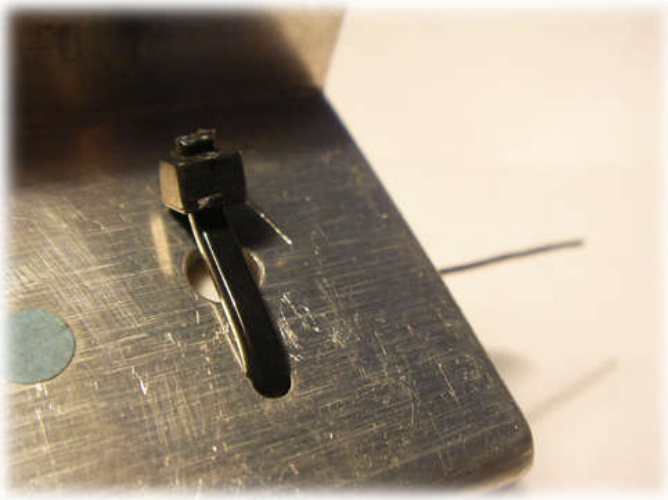
step 12: Fitting the wirewound resistor

Even when I've noticed no difference with the resistor or without it, I read everywhere that there is a need of a 10 Ohm wirewound resistor, so I fitted one.

These resistors get really hot when in use, so I found a heat sink for it, and placed it near the fan.

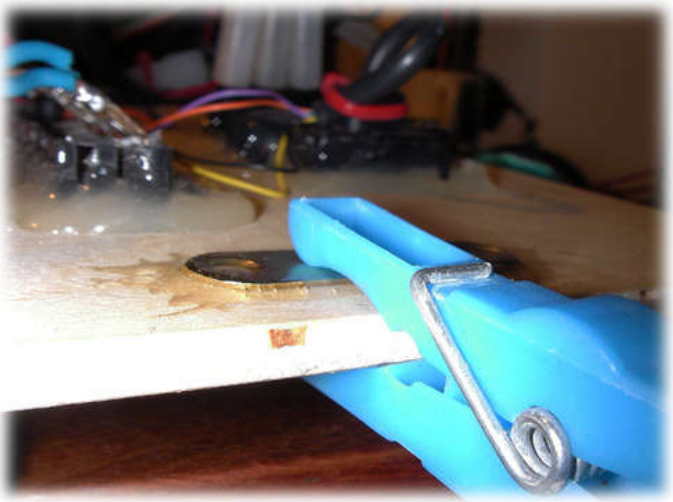
Then, I connected it to ground and +5V.





step 13: Fitting a magnet catch to the door

There are lots of cables so the door will tend to open. The way I solved this is with a magnet catch. I screwed the magnet bit to the enclosure and glued the metal bit to the door with some epoxy.



step 14: Cutting unwanted cables from ATX

Before fitting the ATX inside we can cut unwanted cables and connectors. As you can see in the picture, I did cut the secondary cable and connector and left those that go straight to the ATX. Make sure you cut them really close to the connector so there is not danger of short circuit.

You could also use some cable ties to make the cable as less bulky as possible.

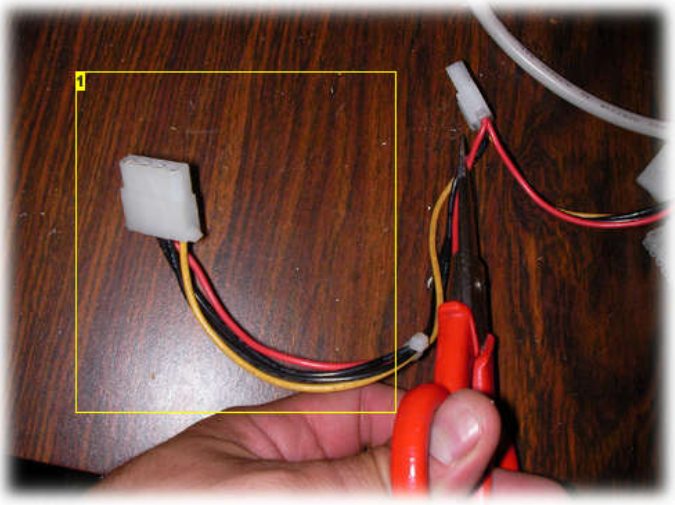


Image Notes
1. Cut unwanted cable connectors, like this one.

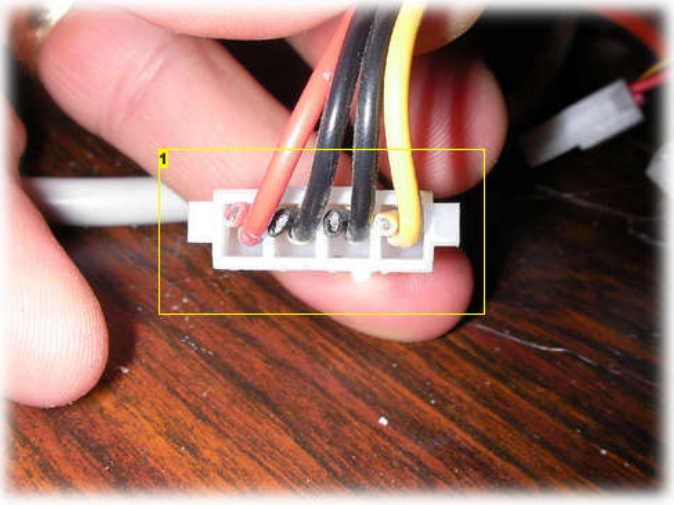


Image Notes
1. Cut really close to the connector you're going to use,so there is not risk of short circuit.

step 15: Labeling

Use a Dymo to make the labels. If you don't have a Dymo (like me), get somebody to do it for you. At the office my wife has one, so she did it for me. When doing the labels, just do as you would understand them.

You can see in this picture lots of labels, I thought there were too many, so I took some out later on.

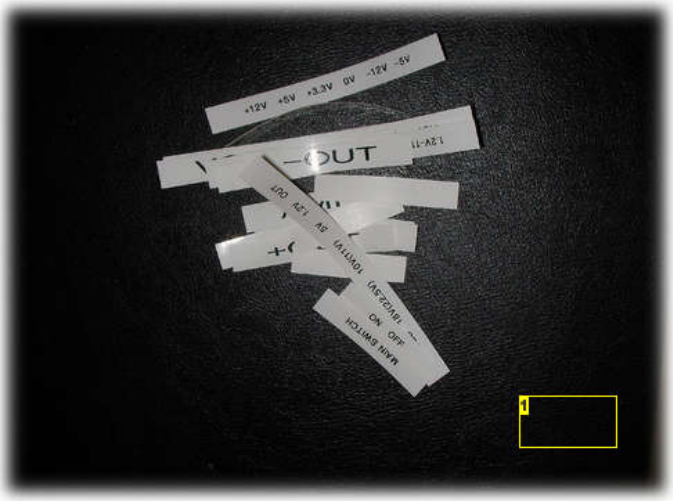


Image Notes
1. You don't need to copy my labels, It is YOUR project, put whatever you will understand easily.

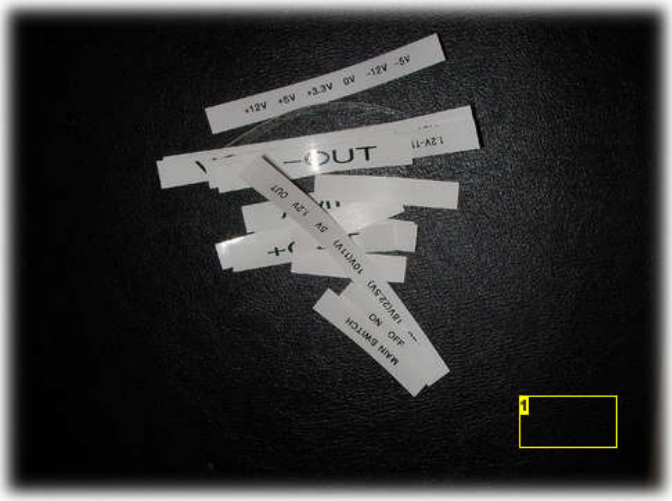


Image Notes
1. You can see in this picture lots of labels, I thought there were too many, so I took some out later on.

step 16: Fitting the Voltmeter and Ammeter

After a long wait, I finally received the analogue meters form HK.

1) .- Before fitting them in place, make sure they work.

2) .- Place them in the hole you made for them. It may require some sanding, we want it to be tight in the hole.

-If you are using analogue metes like mine, you need to power them with a battery, *DO NOT TRY TO POWER THEM WITH THE ATX. This not only won't work, but could also damage the meters (I broke one trying it)*

3). - Use a relay to activate the power to the voltage meter and a switch to power the ammeter. The reason I've done this is so I can use the ammeter with other power supplies.

4) .-To fix the batteries use a couple of battery boxes. I glued the lid, so I can slide the batteries in and out.

Image Notes
1. FINALLY, after all the waiting, I received the units from HK. It a good Idea to test them before you place them in the door.

Image Notes
1. You may need to sand a little the hole if the meters don't fit. (I did the holes with the measures that the ebay shop gave me and it was very close to the size of the unit)

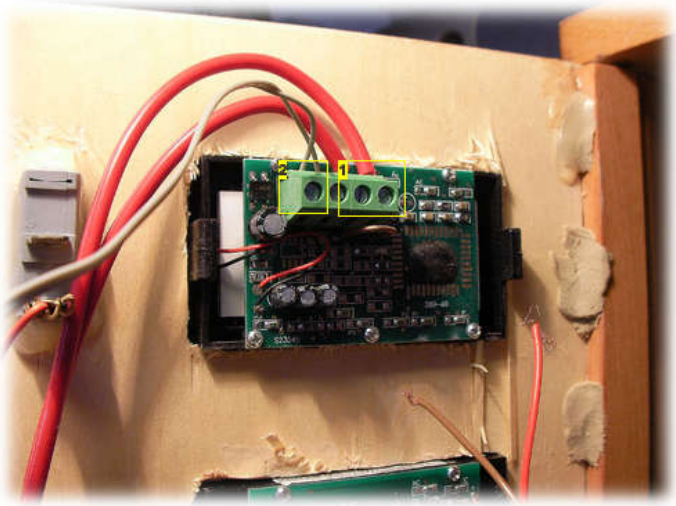


Image Notes
1. Amp meter connection.
2. Working power, in this case a 9V battery.

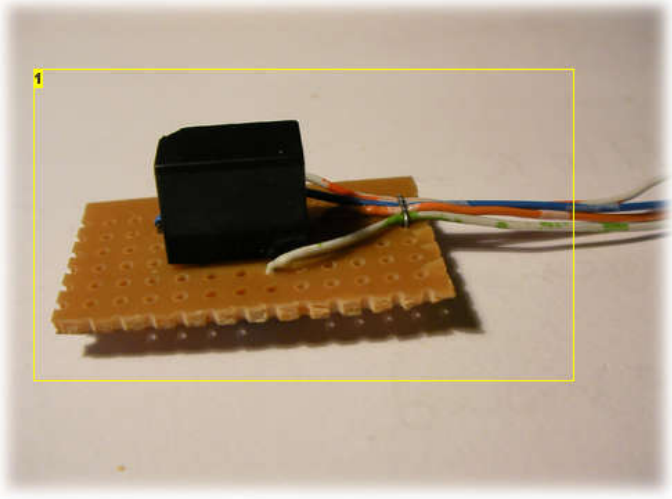


Image Notes
1. This is a 6V relay to operates the Volt meter.

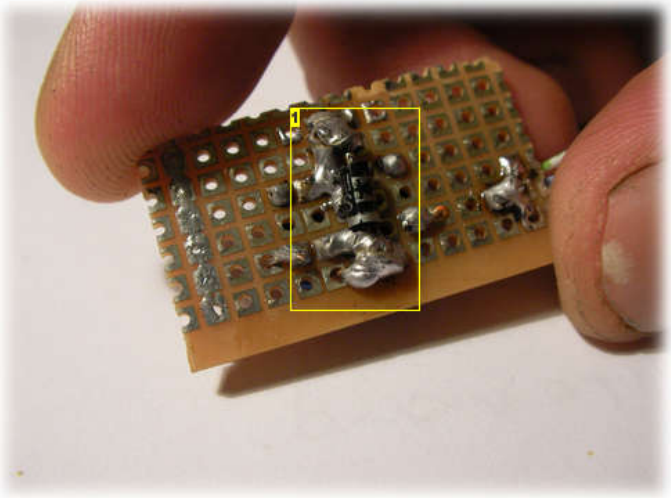


Image Notes
1. A problem with a relay is that it sends a giant pulse through the lines when you switch it off. You generally have to use diodes to pass the pulse to ground. Thank you cyberpageman to point this out.

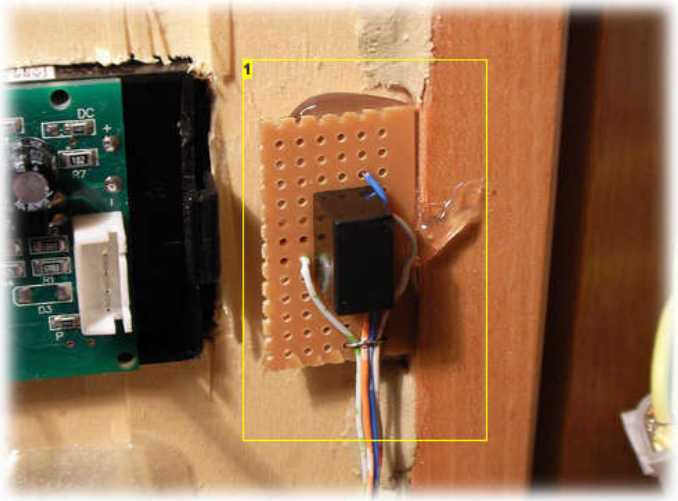


Image Notes
1. I hot glued the relay close to the volt meter.

Image Notes
1. 9v PP3 Battery box. I used two if these.

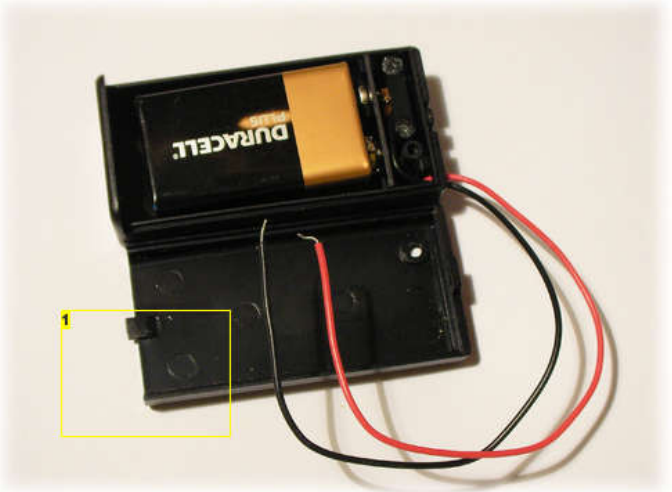


Image Notes
1. Remove the lid...

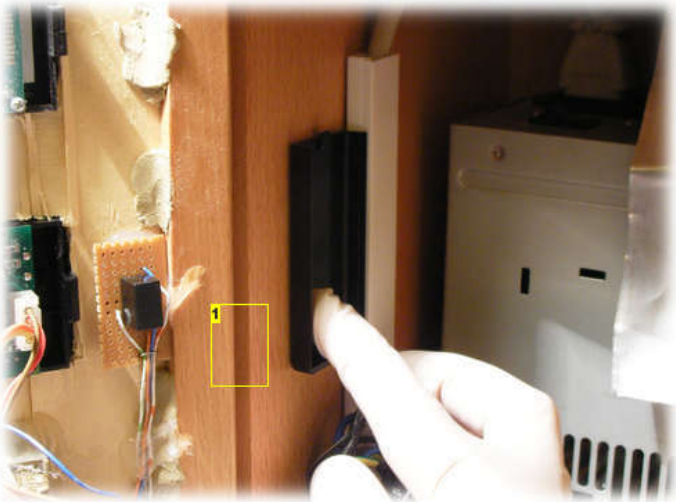


Image Notes
1. I used epoxy to glue the lids.

Image Notes
1. With the lid glued you can just slide the battery in the lid.

step 17: The continuity tester

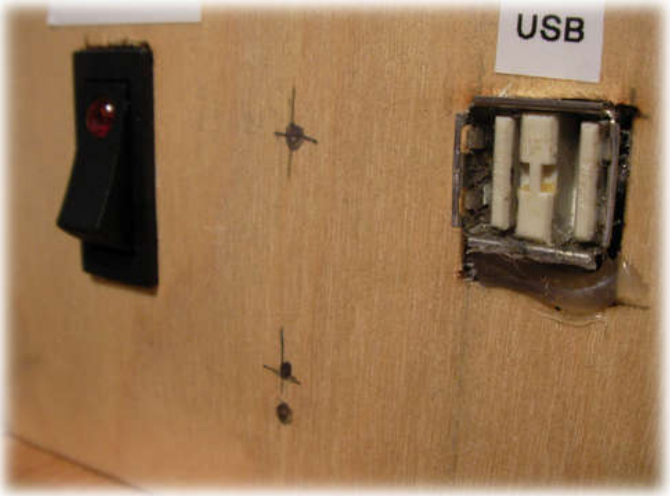
I decided to install a continuity tester on my bench power supply.

1) .- Find a good place to fit the banana connectors. Mark where they'll go

2). - Drill the holes, I did not have a 12.4mm drill bit, so I used my step drill bit.

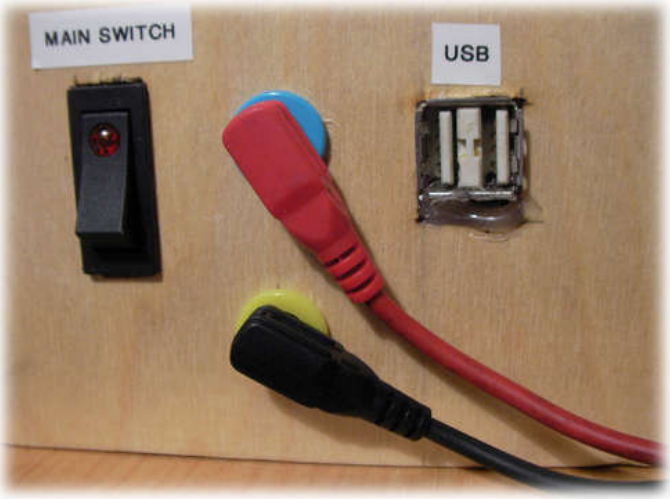
3). - Fix the connectors with the nuts and solder the cables (**see schematic on step 8**)

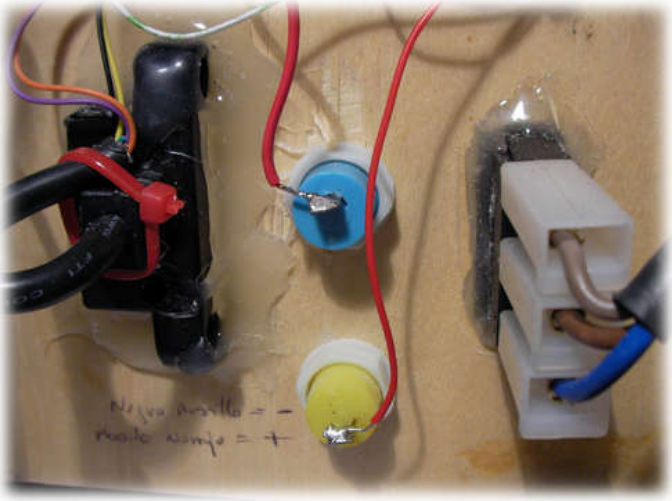
4). - Hot glue the buzzer.

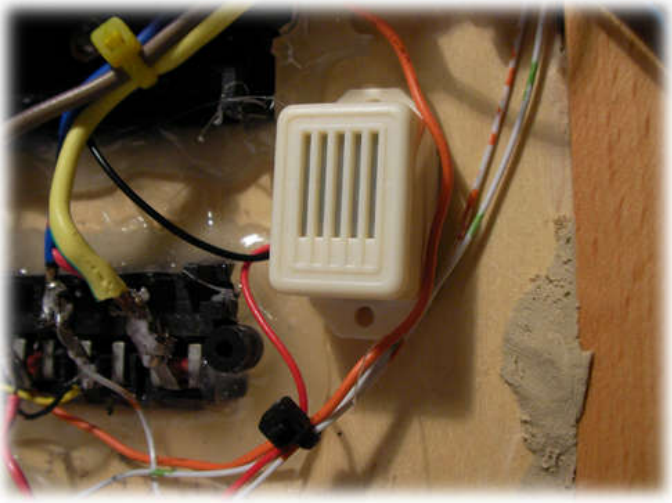

USB


USB


USB


MAIN SWITCH
USB





step 18: You're done!

Well... you're done! I hope this Instructable helped you make a bench power supply.

Remember there are lots of components that can be recycled from old stuff that you have at home or even found on the street.

I have to apologize for lots of mistake I'm sure I've done in this Instructable as English is not my first language.

step 19: Replacing the ATX

Replacing the ATX couldn't be easier. It only takes a couple of minutes.

REMOVE THE OLD ATX

1) .- Disconnect the molex connectors and the 24pin connector.

2) .- Disconnect the main power connector on the ATX.

3) .- Lift the aluminium that helps the vent flow.

4.) - Slide the ATX out of its place. (this is in my case, maybe you've done it differently)

INSTALL THE NEW ATX

1) .-Slide the ATX in its place.

2) .-Connect the main power connector on the ATX (If it has a switch make sure is in the on position)

3) .-Pull down the aluminium until the magnet sticks to the metal of the ATX.

4). -Connect the molex connectors and the 24pin connector.

Related Instructables

ATX Power Supply --> Cheap Bench-Top Power Supply (slideshow) by mortaldoom780

Converting a computer ATX power supply to a really useful lab power supply by abizar

Convert an ATX Power Supply Into a Regular DC Power Supply! by Sitnalta

Convert A Computer Power supply to a Variable Bench Top Lab Power Supply by prodlad

Take a Look Inside a ATX computer power supply by thermoelectric

ATX to Lab Bench Power Supply Conversion by mat_the_w

DIY PSU into Bench Power supply (slideshow) by newtonn2

How to power up an ATX Power Supply without a PC! by FixedHDD

Comments

41 comments **Add Comment**

trumpy81 says: Dec 27, 2009. 8:29 AM **REPLY**

Great project! Love the bread box ... who would have thought of that? and it looks good too.

You could have powered the meters from the ATX supply if you used a bridge rectifier and a 9v regulator, both small inexpensive parts that would eliminate the need to change the battery .... just a thought.

godofal says: Dec 26, 2009. 7:46 AM **REPLY**

hey, i have a small problem, i can only find a 1.0 uF ceramic capacitor, instead of an 1.1 uF.
what should i do, will that 1.0uF work? or can i use a radial one?

godofal says: Dec 26, 2009. 7:48 AM **REPLY**

wait, i just thought of something;
with resistors, its so that in serial they add up right? like 100ohm linked to an 50ohm makes 150ohm resistor?
does this work for capacitors to? so i use a 1.0 uF, and link that to a 0.1 uF, and then i get the 1.1uF i need?

superpickett says: Dec 27, 2009. 7:28 AM **REPLY**

to increase capacitor's value you would put them in parallel not series - caps work exactly backwards from resistors - turns out ya may not need 1.1 anyway but a .1 (as per next post)
de SuperPickett

newtonn2 says: Dec 26, 2009. 9:37 AM **REPLY**

Sorry! There is a mistake on the part list. What you need is a 0.1uf ceramic capacitor.

tmealer says: Dec 24, 2009. 7:05 PM **REPLY**

This has got to be the best instructable on here. I love the use of recycled parts and all the pics of what they came out of. So many good ideas come from information like this. Dude you rock!!!!! **Great job** . Keep it up.

godofal says: Dec 17, 2009. 4:58 AM **REPLY**

wow, and these things can cost hundreds of dollars, and u can make one with 50 bucks max :D
if i find the time sometime, il make this, its great!

newtonn2 says: Dec 17, 2009. 6:20 AM **REPLY**

Thank you!, I have to say that my bench power supply is not as good as those that cost hundreds of dollars, but for my use it's perfect. Go ahead and make one, as you can see it is worthy for the money.

godofal says: Dec 24, 2009. 9:53 AM **REPLY**

most ppl that have elektronics as a hobby dont need super sofisticated stuff, unless ur planning on making a rocket anytime soone, this should suffice :D
and thats the beauty of it :)

when i was writing my last reply, i thought id had to find some ATX, but i realised later i have a frigin old PC lying around somewhere :D

anyway, biggest problem now is finding a hot glue gun >.< the ones i get always break, or couse shortage, or something else.

wouldnt be surprised if the next one would set this project on fire XD

drbill says: Dec 24, 2009. 9:37 AM **REPLY**

I got a 25 amp switching power supply I'm gonna do something like this with it.

Thav says: Dec 17, 2009. 9:25 AM **REPLY**

If you find this regulator gets too hot, or you need more output power, National Semi makes some "Simple Switcher". Maybe something like this http://www.national.com/pf/LM/LM22673.html . That particular chip has an adjustable current limit, so you could have a current limit like on a commercial bench supply. You would need some external parts, some decoupling caps, output filter cap (you pretty much have these) the set resistors (you have these, +1 for current limit), only 1 diode (probably Maybe 1N5822, 40V 3A schottky) and an inductor (probably small enough to hand wind).

newtonn2 says: Dec 17, 2009. 11:05 AM **REPLY**

That would be really cool! any chance you can provide a schematic! Thank you very much!

Thav says: Dec 21, 2009. 10:09 AM **REPLY**

I put this together using National Semi's WEBENCH tool. I haven't really used it before, but I was able to put in design parameters and get a schematic pretty quickly. It does require a registration, however.

I set the input voltage as 12V, the output as 9V @ 2A. You would probably put a potentiometer in series with the 1k resistor on the feedback path to make it adjustable. Increasing that 1k resistor would result in a lower output voltage. Without looking at the part in more detail I couldn't say how much or what the low end of the output voltage range is.

Simple Switcher Buck.pdf(612x792) 530 KB

newtonn2 says: Dec 21, 2009. 2:09 PM **REPLY**

Thank you so much! I will definitely give it a try!

wizer says: Dec 19, 2009. 10:35 AM **REPLY**

Ok, I think it looks *really* cool. But what the hell is it? I mean what do you use it for?

Jodex says: Dec 20, 2009. 1:53 AM **REPLY**

Hah great comment! It's a power supply. You can get electricity from it for your prototype projects. And because there's the 3,3 volt out you can test most of your LEDs and with the higher volt outs you can test other stuff like small motors.. And that doesn't only look really cool, because it is!

bongodrummer says: Dec 18, 2009. 1:57 PM **REPLY**

Looks great! Will have to get round to making my PSU so pimp... Love it! nice work.

blackjack929 says: Dec 18, 2009. 12:50 PM **REPLY**

Ok - THE best case design EVER for a power supply, too cool - one word - Awesome!

isacco says: Dec 18, 2009. 1:07 AM **REPLY**

Looking at the previous comments, I find myself not original, because I also say that this is a great workpiece. Design, crafting, finishing, and Instructable quality are all excellent.
Congratulations!
isacco

Kirbsome! says: Dec 16, 2009. 2:53 PM **REPLY**

Hehe, tried starting a mini ATX now, but I used a small resistor.
It started alright, but the resistor was glowing and now my room smells gross.

newtonn2 says: Dec 16, 2009. 2:59 PM **REPLY**

LOL! You need to find a wirewound resistor.

Kirbsome! says: Dec 17, 2009. 2:39 PM **REPLY**

Yeah, read that, just couldn't find one at the moment.

(also, +5 is the yellow wires right?)

newtonn2 says: Dec 17, 2009. 10:46 PM **REPLY**

Yes.

B.oom says: Dec 17, 2009. 2:30 PM **REPLY**

Awesome Example of scavenging, I really need a modulated power supply so i'm definitely going to use your idea as a foundation!!

mackjr says: Dec 17, 2009. 11:06 AM **REPLY**

awesome very professional

Thav says: Dec 17, 2009. 9:16 AM **REPLY**

I'm surprised they broke. What input voltage are they rated for? Did you hook up to +12V? I would guess using another small linear regulator could get you to 9V without too much trouble for those.

newtonn2 says: Dec 17, 2009. 11:03 AM **REPLY**

I tried to connect it to 12v but it wound't read the voltage, it did show an error. So I tried to connect it to the red and white to get 10v, to see if it would work, but that did damage it.

rocketman221 says: Dec 16, 2009. 3:07 PM **REPLY**

Awesome this is my favorite atx power supply yet.

newtonn2 says: Dec 17, 2009. 7:05 AM **REPLY**

Thank you, I'm glad everybody like it!

Banjomaster says: Dec 16, 2009. 10:30 PM **REPLY**

Thanks for posting this. It is awesome!

kissiltur says: Dec 16, 2009. 3:05 PM **REPLY**

Very pleasing project - almost a steam punk thing going on with the wooden case!

The current measuring device is usually called an ammeter. I don't know why the 'p' is missed out; probably just to make it easier to say.

newtonn2 says: Dec 16, 2009. 3:10 PM **REPLY**

Thank you for letting me know about the ammeter. I'll fix it!

RedMeanie says: Dec 16, 2009. 2:46 PM **REPLY**

I hardly Ever Post Comments.....But This is Outstanding! Very attractive spin to the whole Bench-top Power Supply Phenomenon. Very Good Instructable!

newtonn2 says: Dec 16, 2009. 2:56 PM **REPLY**

Thank you very much!

NachoMahma says: Dec 15, 2009. 6:22 PM **REPLY**

. Fantastic job!

newtonn2 says: Dec 16, 2009. 12:00 AM **REPLY**

Thank you very much!

JakeTobak says: Dec 15, 2009. 3:49 PM **REPLY**

That is beautiful. I think you're being a little too modest when you say that anyone can do this if you can, but I'll certainly give it a try. I've got a month before school starts, but it's been a while since I've taken any courses in AC/DC circuits, so we'll see what happens :P

newtonn2 says: Dec 15, 2009. 11:59 PM **REPLY**

Thank you. If you decide to make another of this and need some help, just let me know.

lemonie says: Dec 15, 2009. 3:11 PM **REPLY**

The effort you've put into this is worth it for showing the project, great stuff.

L

newtonn2 says: Dec 15, 2009. 11:58 PM **REPLY**

Thank you!

knife141 says: Dec 15, 2009. 3:01 PM **REPLY**

Very nice job on the project, and also a very nice job on the instructable!
