

## USB Lights Mod

To get an idea of what made me want to do this, you simply have to know that I have this fascination with making ordinary objects run under the power of the pc. I was walking around a local dollar store with my fiancé, she loves it when I say that, when I saw this package of Christmas lights that ran off of battery power. A light bulb went off in my head, or well at least a Christmas light. Man, that was corny. These things run off of 2 C batteries. I was thinking I could give it a try and if it didn't work, I only spent a dollar on them anyway right.

### Materials Needed:

- **Battery powered Christmas lights**
- **USB cable (from any device)**
- **Heat shrink tubing (optional)**
- **Volt Meter**



Before I get started I have to say that I take no responsibility for what you do with this information. If you

break something then tough stuff, your problem, not mine. Once I got back to the lab, my bedroom, I disassembled Johnny 5. The plastic battery housing just pulls apart. You can then tell which wire goes where. Be sure to leave some slack in your wire so you can easily reuse it on some other project. I marked which wire went to the positive with a piece of scotch tape. My original plan was to run them from the power supply, but then I thought that wouldn't be practical at all. Why not USB?! I went to the save-a-lot and picked up a \$5 USB cable and headed home. If you can find a \$2 USB mouse or any piece of junk with a USB connector on it then good, the cheaper the better.



Next I chopped the device connector off of the USB cable and stripped the jacket back. Inside you will find that the outer part of the connector is connected to stranded wire that is just inside of the jacket, this is what I

used for my ground. I pulled the stranded wire together and twisted it. There are 4 inner wires surrounded by a tinfoil jacket. Pull this jacket off and trash it. I stripped the most logical choice for the 5-volt power, which was the red wire. I plugged the USB into my putter and tested the wires with my trusty voltmeter. Sure enough, the red was the one we were looking for.



To clean up the job I decided to use some heat shrink tubing, which can be picked up at any hardware or automotive store. Note: be sure to put the heat shrink tubing on the wire before you connect the wires, although I'm sure none of you would forget to do this. :P~ After that I twisted the wires together and put electrical tape over my positive connection. I put just enough tape to cover the bare wires. You could always solder them together, but I'm way too lazy to do that. Then I put some small heat shrink tubing over the

connections and heated them with a lighter. Most people use a blow dryer, but once again I am too lazy to walk to the bathroom. Next I pulled my large heat shrink tubing down over the whole assembly to clean up the job.



I also found a different style of lights, but I liked the small ones better.





### **Durability Test**

Then it's just a matter of plugging in the USB cable. Simple as pie. After I had the lights running for a while and decided to go to bed I realized I needed a switch. I went to my local hardware store and picked up a dial cord switch, although, any switch you have lying around will work. The installation instructions are on the back of the box and should take the average human about 20 seconds to install. I hope you have a merry USB Christmas. I would like to say thanks to all the cats that helped me. Brak is the orange cat, and Space Ghost is the big white one. Thanks for reading my mod.

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