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By

larry

– June 7, 2009 **Posted in:** [Arduino Projects \(http://luckylarry.co.uk/arduino-projects/\)](http://luckylarry.co.uk/arduino-projects/), [Electronic Projects \(http://luckylarry.co.uk/electronic-projects/\)](http://luckylarry.co.uk/electronic-projects/)



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Rather than use the USB to power my **Arduino** board with a handy trip to the electronics store with some more knowledgeable people than I, I have constructed a **9Volt DC power supply**.

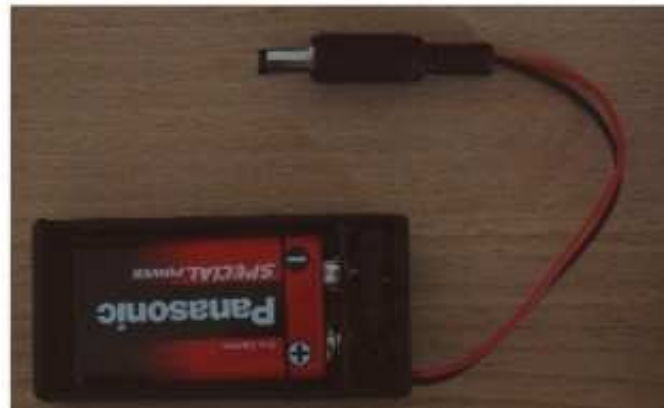
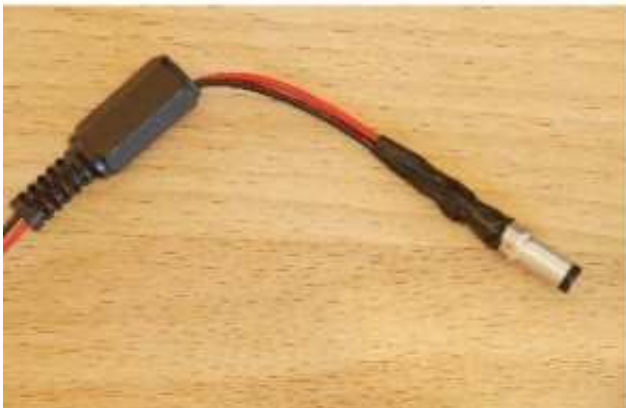
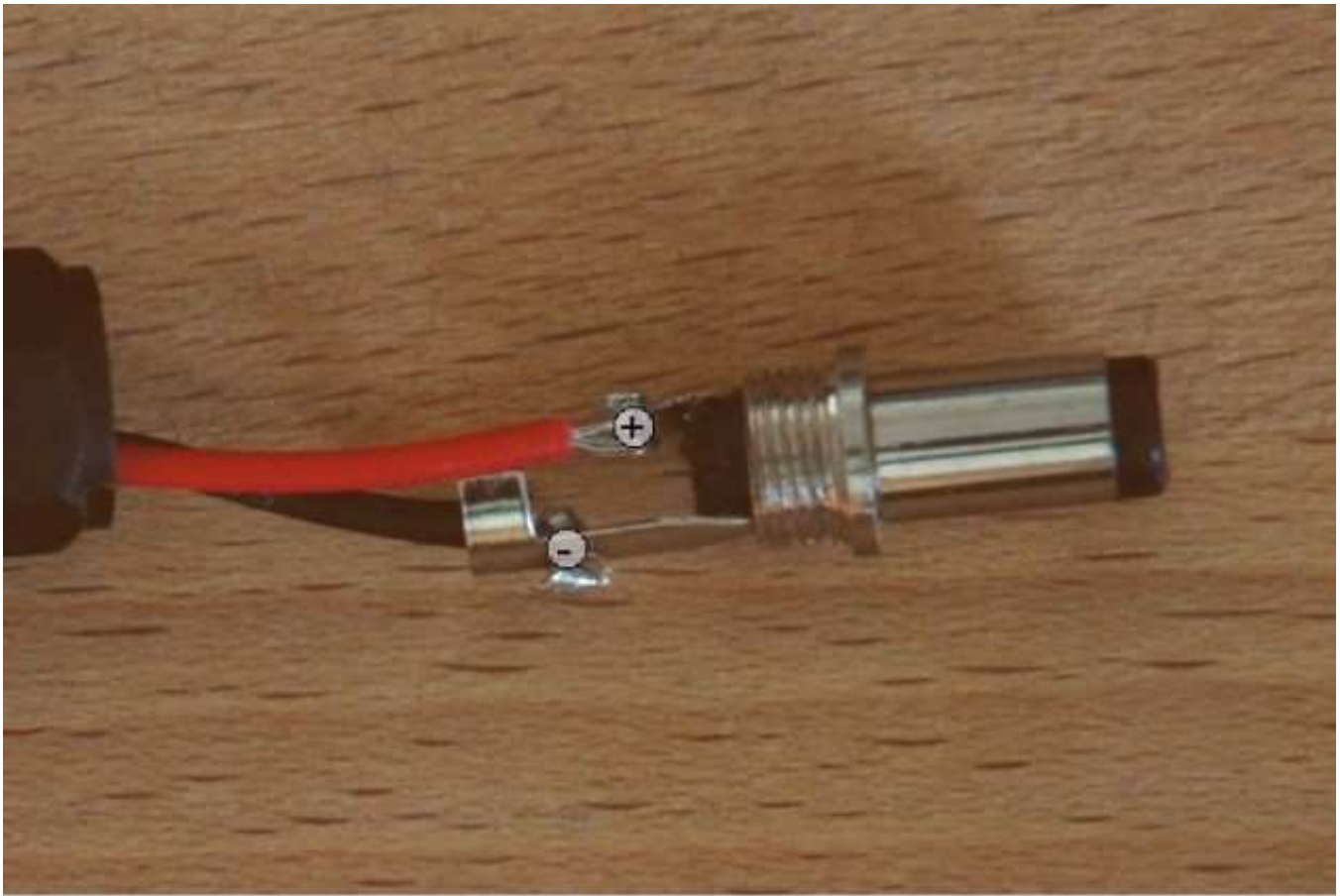
Taking a 9 volt battery, a 9v battery holder and a 2.1mm coaxial DC jack (positive tip) I have quickly soldered a portable power supply and better yet it works! (You will also need solder and a soldering iron).

DC Power Supply Components

2.1 mm coaxial DC jack

PP3 9Volt battery

PP3 9Volt Connector / 9Volt battery holder



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Step 1:

Trim the wires on the battery box and make sure that theres at least 5-10mm of exposed wire. Unscrew the jack, take the housing and thread the wires through.

Step 2:

Connect to positive (red) wire to the base of the pin and solder, connect the negative/ground (black) wire to the tall pin and solder. Making sure that there is no connection between the two.

Step 3:

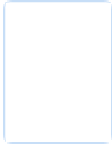
Wrap some electrical tape around the connection and screw on the housing unless like me you forgot to thread the wires through it which, in that case, means having to unsolder your connections and start again. Tape up the flex wire and you're done.

Thats it, plopp in the battery and jab the connection to your DC jack on the board and you should get power. If you
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don't either your battery box has an on/off switch, you got the pins wired wrong or your soldering is shit.

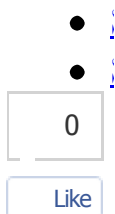
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bluebo

Posted December 27, 2009 at 8:04 AM

How long do you think the battery will last having a piezo playing a tune?

- [Reply \(/arduino-projects/making-a-9v-battery-dc-power-supply/?replytocom=1159#respond\)](/arduino-projects/making-a-9v-battery-dc-power-supply/?replytocom=1159#respond)



[larry](http://www.luckylarry.co.uk) (<http://www.luckylarry.co.uk>)

Posted December 27, 2009 at 3:15 PM

Well I've not changed my battery since I made this and its powered the Arduino board for a long time! I guess you're going to be using the Arduino to control the piezo speaker? the average 9v battery will have about 300mAh when fully charged. Each of the Arduino pins use up to 40mA and then you've got to factor in your code running – how much its using the chip, sending instructions etc... if the piezo is playing constantly and so on. So you should get maybe 2-3 hours if its running constantly I reckon maybe more depending on what you do. If you want it running for much longer than ge some AA batterys and solder a battery pack as you'll be able to get 2-3000 mAh, then your Arduino will run for days. There's some interesting work here similar to this topic at:

http://interface.khm.de/index.php/lab/experiments/sleep_watchdog_battery/
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3. Burnout fail! Smashes bike into parked car <http://t.co/bgHvUgB> (http://t.co/bgHvUgB) February 11, 2011 3:13
4. <http://www.forestry.gov.uk/england-pfeconsultation> (http://www.forestry.gov.uk/england-pfeconsultation) Forests to be sold off by the government - have your say! please retweet. February

10, 2011 8:55

5. back from college. "can you use watch batteries as shims for valve clearance?" and these people are training to be mechanics! February 8, 2011 10:33

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