

# Another Altoids Ipod Charger

by [soundman3103](#) on May 26, 2008

## Table of Contents

intro: Another Altoids Ipod Charger .....	2
step 1: Materials .....	2
step 2: Hooking Up the battery and Switch .....	3
step 3: Led to Regulator .....	3
step 4: wiring the ground .....	3
step 5: The Case .....	4
Related Instructables .....	5
Advertisements .....	5
Customized Instructable T-shirts .....	5
Comments .....	5

## intro: Another Altoids Ipod Charger

Alright this is my first Instructable and I made a different version of the Altoids ipod charger. I made my first version off of another instructable but i wanted to make it my own so i made this one



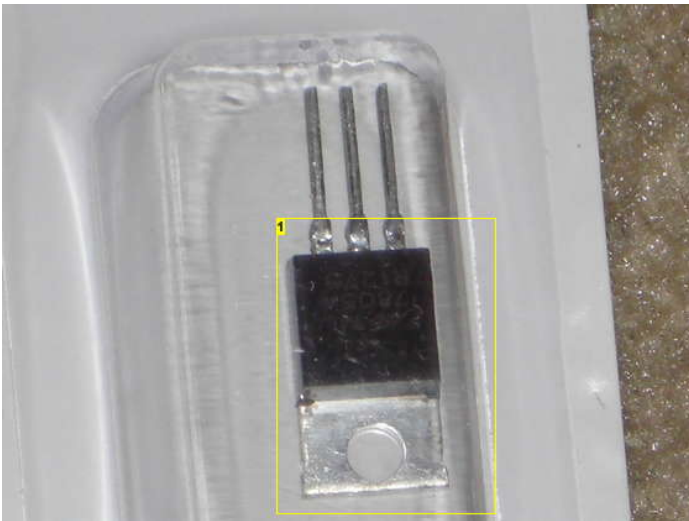
### Image Notes

1. Switch
2. Yummy!!

## step 1: Materials

Soldering Iron  
Solder  
Lots of wires  
dremel or something to cut the altoids case  
drill  
drill bits  
9vbattery  
9v battery clip  
5v Regulator  
LED  
Resistor (im not really sure which one)  
female usb ([www.http://www.mouser.com/Search/Refine.aspx?Ntt=806-KUSBX-AS1N-B](http://www.mouser.com/Search/Refine.aspx?Ntt=806-KUSBX-AS1N-B))

this is a pic of the regulator



### Image Notes

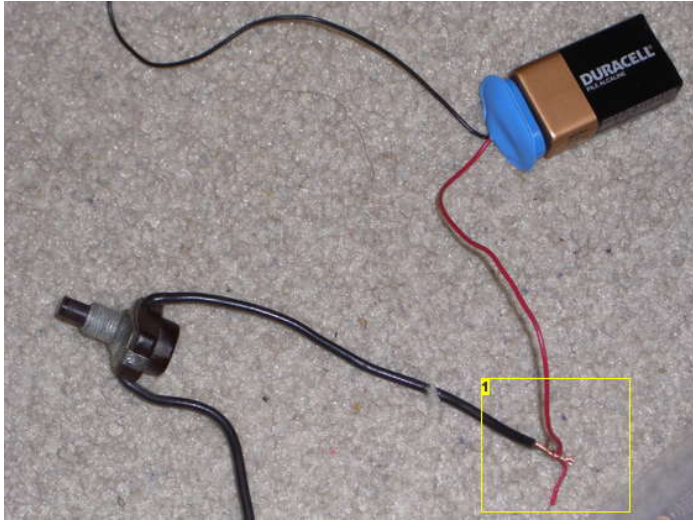
1. 5v regulator

## step 2: Hooking Up the battery and Switch

Hook the 9v Battery clip up to the batter

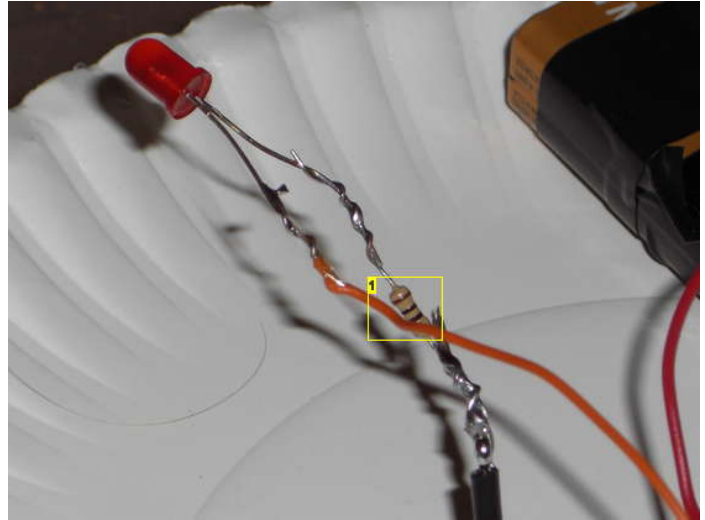
Take the red wire (positive) from the clip and solder it to one end of the switch

then solder the other end of the switch to the resistor and solder the resistor to the positive side of the led



### Image Notes

1. Positive of the battery soldered to one end of the switch



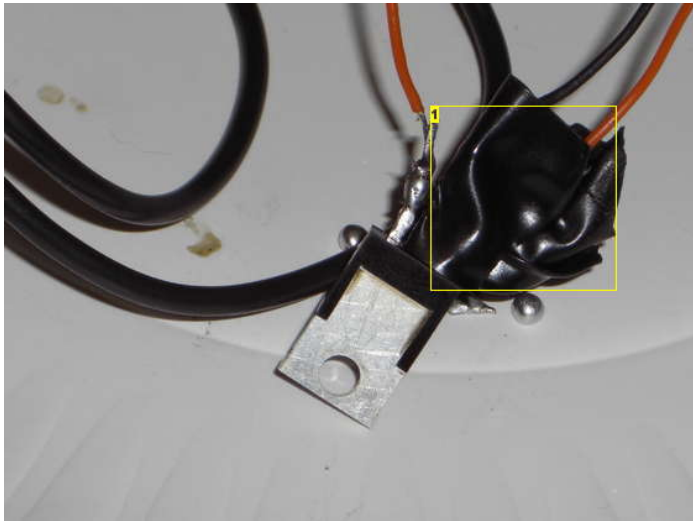
### Image Notes

1. Resistor

## step 3: Led to Regulator

Now solder the other end of the led to pin 1 of the regulator (there should be a schematic on the back of the regulator box).

Next take a black wire and solder it to the middle pin of the regulator aka the ground.



### Image Notes

1. Sorry about the tape

## step 4: wiring the ground

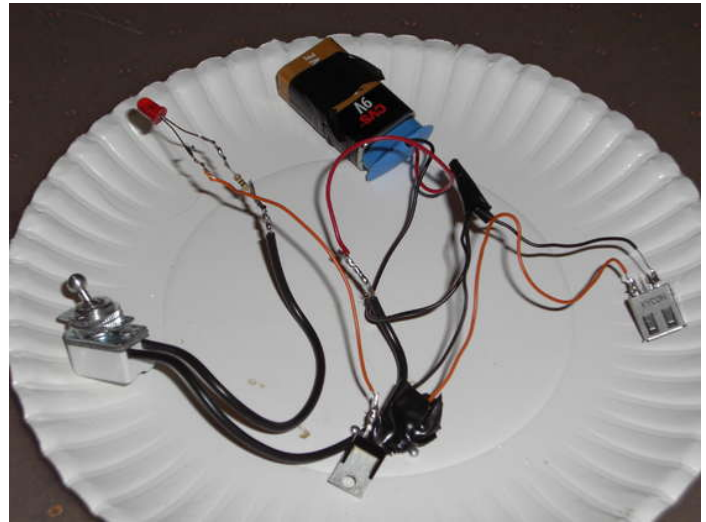
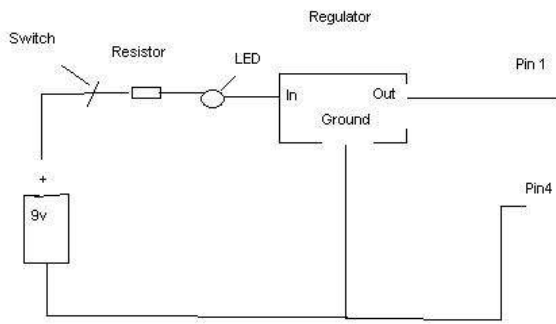
Solder a wire going from the out of the regulator (pin 3) and solder it to pin one of the usb port.

Take the wire you soldered onto the ground (pin 2 of the regulator) and solder it to the negative of the battery.

Ok now the confusing part. Solder another wire onto the negative of the battery. Take the end of that wire thats not connected to anything and connect it to pin 4 of the usb. Sorry if this sounds confusing

The picture should help a little.

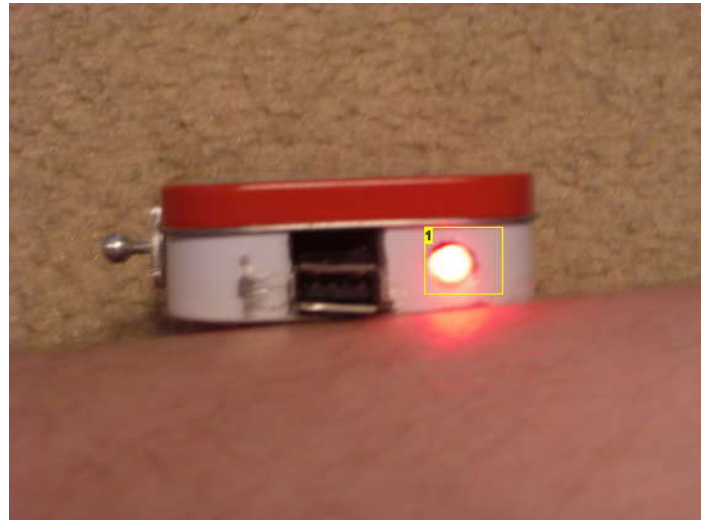
I also **tried** to make a schematic in paint



### step 5: The Case

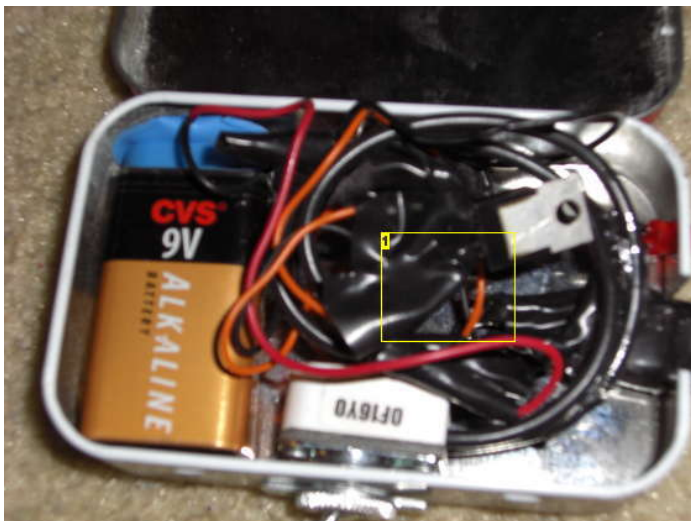
Its time to modify the altoids case. You can do however you want really all i did was drill a hole in the side for the switch  
I also drilled a whole in the front for the led

Next i took my dremel and put two slits down the side for the usb and then u just put everything in



#### Image Notes

1. cool



#### Image Notes

<http://www.instructables.com/id/Another-Altoids-Ipod-Charger/>



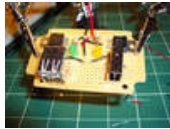
## Related Instructables



**easy ipod charger** by ipod man



**iPod shuffle 2gen lego dock/charger SUPER EASY!!!!!!!!!!!!!!** by mardfet



**Dual iPod Charger** by joe



**Quick & Easy iPod Charger / Portable DC Accessory Jack** by Tumbleweed



**Get More Out Of Your iPod Battery** by asda653



**Convert your 4th Gen iPod to use Flash Memory** by fstedie



**Boom Box iPod Dock / Homemade iHome** by GamingRobot



**Get Your Music Back! Transferring iPod > iTunes in Windows** by Kulawend



## Comments

[41 comments](#) [Add Comment](#)



**Killa-X** says:

Sep 24, 2008. 7:16 PM [REPLY](#)

Well, I got it to charge my ipod with certain schematics i got on google. I had to get special ones for my ipod touch, since you got to fool the machine. The only thing i noticed, is that the regulator gets hot.. yet, nothing is hooked wrong. My guess was this is due to the charging...

For those who want to charge the iphone, You need to add 2.5V to pins 2 and 3 (middle data pins). This was a concept at a blog, and I tried it out. He used a voltage divider. I did the math, and used a 1MOHM resistor (Brown Black Green Gold) And well, connected it from USB 5V + to both middle terminals. nothing else. Ground to ground of course, but dont ground the middle terminals.

I havn't left it on for a true charge test, But It did boot saying it was charging. The only problem I was having, is my regulator getting hot slowly. Over at a nother charger instructable, the guy claimed regulator should get very hot. I highly dont trust heat since if it ever went bad, you do risk it breaking down, and 9V to ipod.



**chingchong** says:

Oct 21, 2008. 3:21 PM [REPLY](#)

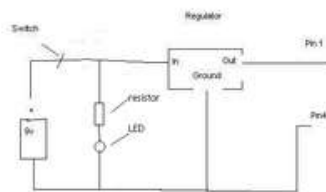
Can you please send me the link for the schematics for the ipod or post a pic or it?



**bomberman3** says:

Aug 31, 2008. 11:12 AM [REPLY](#)

I think this would work better for the LED





**Killa-X** says:

Exactly what I said before. When the resistor is going to the regulator, your giving it less power than 9V. Thus, like your diagram shows, its best to go a separate path. Also, Your amps question, Radioshack ones are like 1amp, 34V max for input, so I don't know..

Sep 15, 2008. 4:34 PM [REPLY](#)



**bomberman3** says:

Ya that's what I was thinking. And about the regulator, I found out that USBs give off a max of 500 mA so a 5v 500mA regulator should work best.

Sep 16, 2008. 3:15 PM [REPLY](#)



**coolchris1225** says:

i can only get 1.8 volts out of my regulator i have bought multiple regulators thinking that i fry all of them i use a regular 9v duracell battery whats wrong

Sep 10, 2008. 6:53 PM [REPLY](#)



**soundman3103** says:

Did u get a 5volt regulator if so im not really sure whats wrong. check bomberman3's schematic down below and try that

Sep 11, 2008. 1:16 PM [REPLY](#)



**Killa-X** says:

This doesnt make since. Your putting 9V to a resistor, then to a LED so it wont die. That means the power going to the regulator, must be lower also, since your LED goes straight to it. Maybe if you did 9V to regulator, and Do a seperate path for the resistor and LED before it.. Duno.

Sep 15, 2008. 12:45 PM [REPLY](#)



**bomberman3** says:

does the amperage of the regulator matter?

Sep 2, 2008. 5:21 PM [REPLY](#)



**soundman3103** says:

umm... sry i really dont know. I dont think so though

Sep 2, 2008. 6:52 PM [REPLY](#)



**omkar\_hummer** says:

my regulator gives 5 v + do i need to add a resistor to it?

Aug 29, 2008. 11:52 PM [REPLY](#)



**soundman3103** says:

Yah porb, but itll be easier to get a regular 5 volt regulator

Aug 30, 2008. 4:37 PM [REPLY](#)



**craz\_meanman** says:

so, whats the diff. between a 5 volt regulator, and a resistor?

Aug 3, 2008. 8:49 PM [REPLY](#)



**Elektriccity** says:

A 5 Volt regulator can accept a wide array of voltages. One i used could take anywhere from 5 to 35 and output 5. A resistor would let the voltage vary depending on the input.

Aug 27, 2008. 1:37 PM [REPLY](#)



**soundman3103** says:

Youll prob have to google that im not to good with eletric. I think they do pretty much the same thing but i not for shure

Aug 4, 2008. 4:25 PM [REPLY](#)



**craz\_meanman** says:

ughhh i hate doing my own research...

Aug 5, 2008. 12:30 PM [REPLY](#)



**yano** says:

a regulator will make sure that the voltage stays at a constant value - a 5-volt regulator will always keep the voltage at 5 volts - the amount of voltage reduced will change with the input (if you put in 9v, it'll knock off 4v, if you put in 12v, it'll get rid of 7v)

a resistor will always reduce the voltage a set amount in proportion to the input

you use a regulator for this project because batteries don't always supply the same amount of voltage - it lowers as the battery gets used - this means that if you used resistors, the power would continually get weaker, because the resistors would keep reducing the voltage by the same amount

With regulators, this reduction doesn't matter as long as the battery continues to put out at least 5 volts

Aug 26, 2008. 12:01 PM [REPLY](#)



**craz meanman** says:

great explanation! thanks a lot! so i did it with my phone, and it my phone recognized it, and just said it was fully charged, as opposed to charging. but i think thats a deal with the phone... thanks again though!

Aug 26, 2008. 1:57 PM [REPLY](#)



**shantanu007** says:

for some reason this wont charge my ipone 3g and every thing is wired correctly even the light turns on.

Jul 19, 2008. 9:20 PM [REPLY](#)



**soundman3103** says:

You need to take the light off. thats my momentary fix ill try to figure out how to wire it in. When you turn it on the voltage goes down to 4 but you need 5 so if you take the light off itll go up to five

Jul 20, 2008. 11:39 AM [REPLY](#)



**shantanu007** says:

Would getting a 6v regulator fix the problem?

Jul 25, 2008. 6:37 PM [REPLY](#)



**soundman3103** says:

thats not a bad idea just check the voltage before you plug it into anything im not responsible for damaged stuff

Jul 28, 2008. 12:05 PM [REPLY](#)



**yano** says:

usb ports normally put out ~5v, so 6v would probably be too much. I don't know if it would do any damage, but I wouldn't try it personally I've heard that some of the newer iPods require you to ground the circuit, so you might want to try that

Aug 26, 2008. 12:28 PM [REPLY](#)



**omkar\_hummer** says:

1)mines dosent charge with 9 v  
2)how much output will a 5v regulator give when input 12 v?

Aug 13, 2008. 6:55 AM [REPLY](#)



**soundman3103** says:

1) try taking the light off  
2)itll give you 5v

Aug 14, 2008. 3:29 PM [REPLY](#)



**hornbadoing** says:

5v a regulate makes it so its always what regulator it is 9v in a 5v regulator is 5v a 12v in a 5v regulator is 5v

Aug 13, 2008. 9:12 AM [REPLY](#)



**omkar\_hummer** says:

how much voltage and current output do you get?

Aug 13, 2008. 6:54 AM [REPLY](#)



**shantanu007** says:

Okay so i fianly got everything working and the only problem is taht this cant charge my iphone 3g but it charges my other ipods does anyone know what the problem is?

Aug 11, 2008. 1:04 PM [REPLY](#)



**omkar\_hummer** says:

how many time can the i pod or cell be charged? how efficient is it??

Aug 4, 2008. 7:15 AM [REPLY](#)



**soundman3103** says:

um im not quite shure how many times it can be charged with a 9v but if you take the led light off its pretty efficient.

Aug 4, 2008. 4:24 PM [REPLY](#)



**allstarn07** says:

It helps if you tell us what OHM the resistor is, but you can tell from the color code on it that it is probably a 200 OHM resistor

Jun 15, 2008. 3:40 PM [REPLY](#)



**itsthatsguy** says:

LoI 200 and your device would fry i made one of this and fried my zune's battery i got a new one and retried it with a potentiometer about 1.5k ohm is a good zone to be in.

Jul 25, 2008. 1:17 PM [REPLY](#)



**jonboytang** says:

Jul 5, 2008. 3:44 PM [REPLY](#)

The resistor shown in the next page is a 10 ohm resistor OR colour coding BROWN BLACK BLACK (GOLD/Silver/Red). Just make sure that the first 3 colours are correct.

---



**stackemtotheheavens1** says:

Jun 26, 2008. 11:54 AM [REPLY](#)

I built this, and when I add power to it, the ipod turns on but it does not show that it is charging. I checked the battery, and its full 9v. any suggestions?

---



**soundman3103** says:

Jun 27, 2008. 10:30 AM [REPLY](#)

sorry about that i noticed that a couple weeks ago but was to busy to fix it. I was just going to try and add some more power like a triple a or something. If that works please right me back and let me know

---



**stackemtotheheavens1** says:

Jun 27, 2008. 11:47 AM [REPLY](#)

I actually hooked the whole thing up to a 12v cigarette lighter plug in my car, and I still have this same problem. It's very strange.

---



**soundman3103** says:

Jun 29, 2008. 6:32 PM [REPLY](#)

huh that is really weird. I really dont know what to do. well ill mess with it and see what i can figure out. im betting if you take out the light and the resistor itll probably work but i dont know yet.

---



**Artificial Intelligence** says:

May 30, 2008. 11:31 PM [REPLY](#)

This Instructable is entered to all the ongoing contests. Why?

---



**soundman3103** says:

May 31, 2008. 7:35 PM [REPLY](#)

Sorry i was new to this and i didnt no what i was doing

---



**Brennn10** says:

May 27, 2008. 6:11 AM [REPLY](#)

This is a decent instructable, however, it just lacks in depth instructions of where you need to solder everything. Because your last picture looks like a jumbled mess with wires coming from every which direction. It probably works, but more in depth instructions to help out the novice electricians would suit this instructable best.

---



**Itsgoofytime** says:

May 26, 2008. 7:25 PM [REPLY](#)

Theres so many of these on here, this is not original and does not belong in any of the contests it is entered in.

---