
(http://cdn.instructables.com/FZ4/X05A/FTK8A4SZ/FZ4X05AFTK8A4SZ.LARGE.jpg)

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This Instructable will show you how to create a shoe that generates electricity. It does this by using your energy when you walk and converts it into electricity. If you've ever lost power to your cell phone in the middle of nowhere, then you know how frustrating it can be. But with this shoe, you can charge an electronic device anytime, anywhere.

The concept and design are really actually simple. You get a small generator from a rechargeable flashlight, rig it up so you can turn the generator axle when you step down, and channel that energy to a cell phone's (or other device's) charger cord. You can use this when you are jogging or walking or just when you're sitting down and feel like tapping your foot.

The materials are really pretty cheap and the project is easy to make. The only thing that you will have to adjust for is that you probable won't have the same kind of shoe I have. So you might need to make some adjustments, but the concept is still the same.

Generating (/tag/type-id/category-play/keyword-generating/)

Shoe (/tag/type-id/category-play/keyword-shoe/)

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Step 1: Materials

(http://cdn.instructables.com/FJH/V1E2/FTK8A4P6/FJHV1E2FTK8A4P6.LARGE.jpg)

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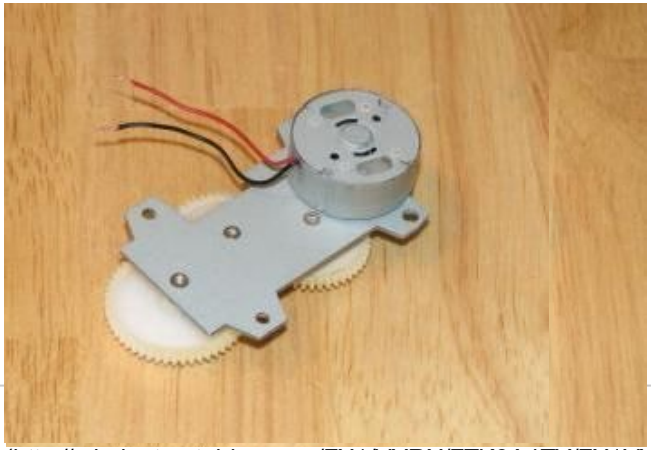


(http://cdn.instructables.com/FXO/YRVF/TK8A4U9P/FXOYRVFTK8A4U9P.LARGE.jpg)

First of all, [illegible] a shoe with the thickest sole availa[illegible]

Next, you'll [illegible] generators. The two pictured be[illegible] is one of their generators. I got the fla[illegible] brand is MegaBrite. The other [illegible] piece of re-bar, some thick wire, [illegible] er.

As far as to[illegible] a drill, a band saw (unless you want to[illegible]

(http://cdn.instructables.com/FJE/O63O/FTK8A4P0/FJEO63OFTK8A4P0.LARGE.jpg)

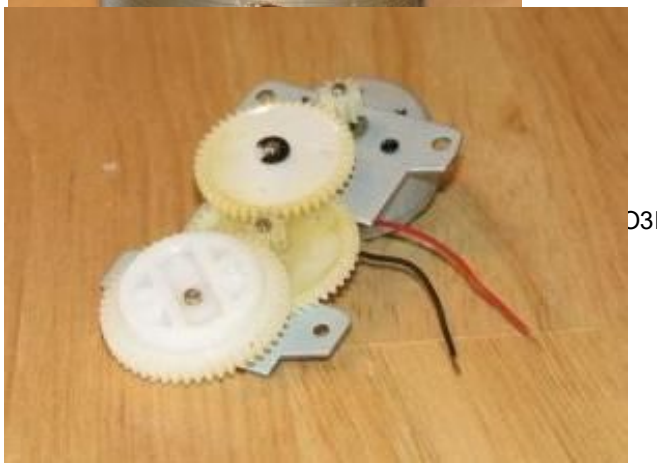
Step 2: Hollow out the shoe

(http://cdn.instructables.com/FZ8/DQ2H/FTK8A4P1/FZ8DQ2HFTK8A4P1.LARGE.jpg)

(http://cdn.instructables.com/F0R/LVDB/FTK8A4P5/F0RLVDBFTK8A4P5.LARGE.jpg)

The first step is to hollow out the shoe so you can put all the stuff in it. I did this using a utility knife and some pliers. Try not to mutilate the shoe and don't cut all the way to the edges. Leave some rubber along the edges as shown for structural integrity.
Next, drill a hole in the back or side of the shoe. This is where your charger cord will go in and connect to the generators.

Step 3: D



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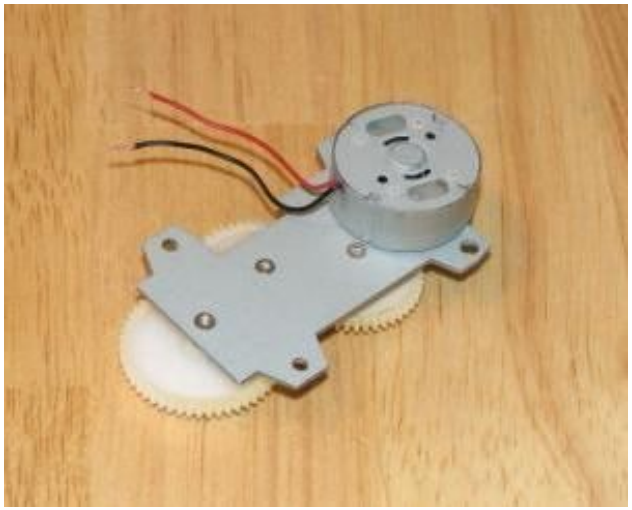


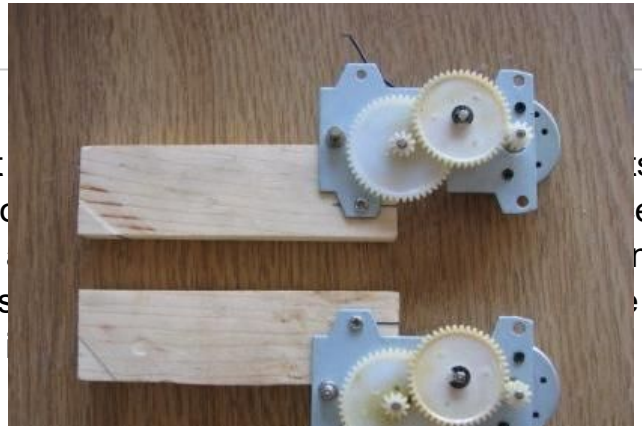
(http://cdn.instructables.com/FX1/VYRX/FTK8A4TY/FX1VYRXFTK8A4TY.LARGE.jpg)

Next, dissect you flashlights and get the generators out. Keep them connected to their gear assemblies because these will be used as well. Also, keep all the

screws from the flashlight because you might be able to use them later.

Step 4: Front Assembly

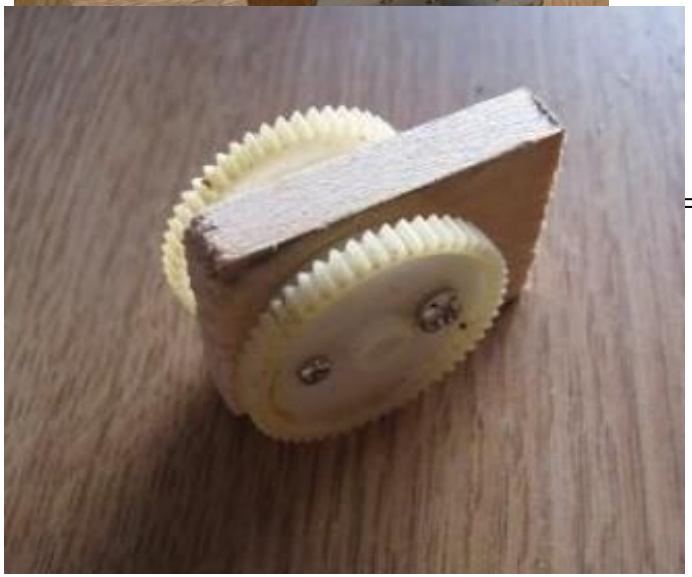
(http://cdn.instructables.com/FFB/VYIJ/FTK8A4SN/FFBVYIJFTK8A4SN.LARGE.jpg)



This front [illegible]s and the whole thing will connect to [illegible]es of wood. Make them about 2-3" long [illegible]nerator sets to the pieces of wood as s[illegible] two pieces on to a center block, as [illegible]

(http://cdn.instructables.com/FZZ/P9UR/FTK8A4SE/FZZP9URFTK8A4SE.LARGE.jpg)

Step 5: Co[illegible]



[illegible]FTK8A4S7.LARGE.jpg)

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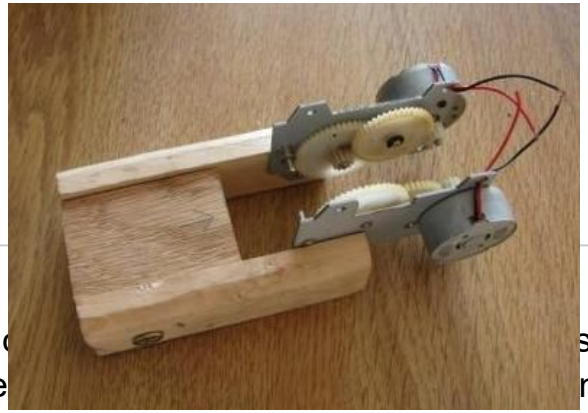
(http://cdn.instructables.com/FV4/FTF3/FTK8A4S7/FV4FTF3FTK8A4S7.LARGE.jpg)

Now, you c sets of gears. Take the two biggest ge nd connect them to a long skinny block. You will probably want to make your block longer than mine because then it is easier ent will be the lever which is what will p e shoe.
Next, conn st need to slide it onto the generator a you put this on while you're putting tog


(http://cdn.instructables.com/FX2/OE31/FTK8A5LK/FX2OE31FTK8A5LK.LARGE.jpg)

Step 6: The Back Block

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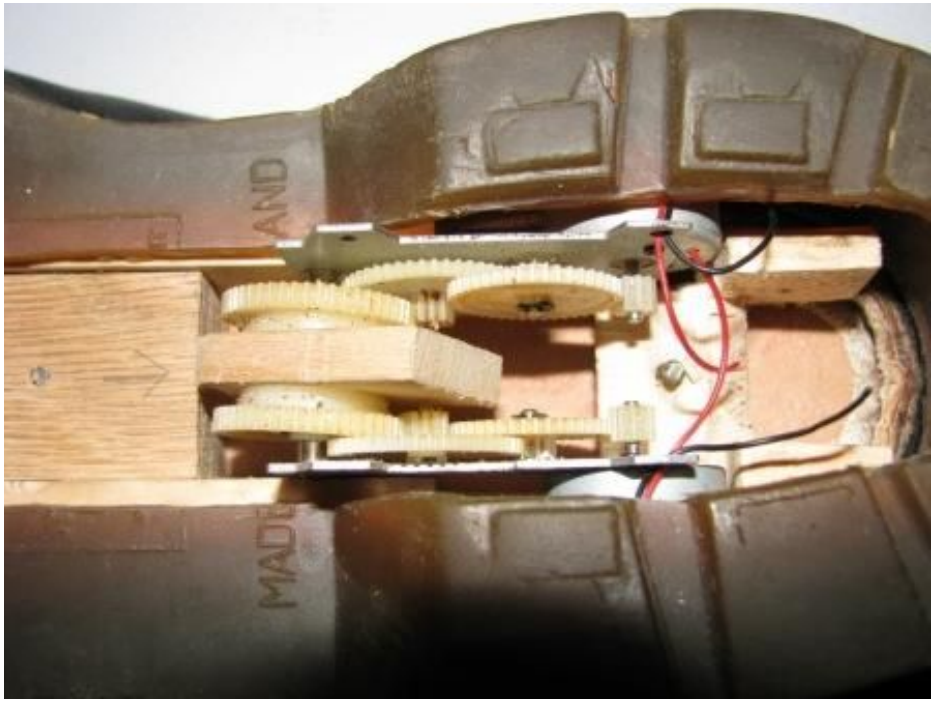


(http://cdn.instructables.com/FIC/302F/FTK8A4TM/FIC302FFTK8A4TM.LARGE.jpg)

The back block will be used to hold the other side of the generator assemblies and to hold the spring. Mine looks sort of rough, but it worked pretty well. You can easily make this piece on a band saw and fashion it out so it will fit the shoe you are working with.
The front part will connect with the generator assemblies and the two tower-like appendages are for holding the spring.
Its not shown in the picture, but you will need to drill a hole in each tower so a wire will be able to pass through.

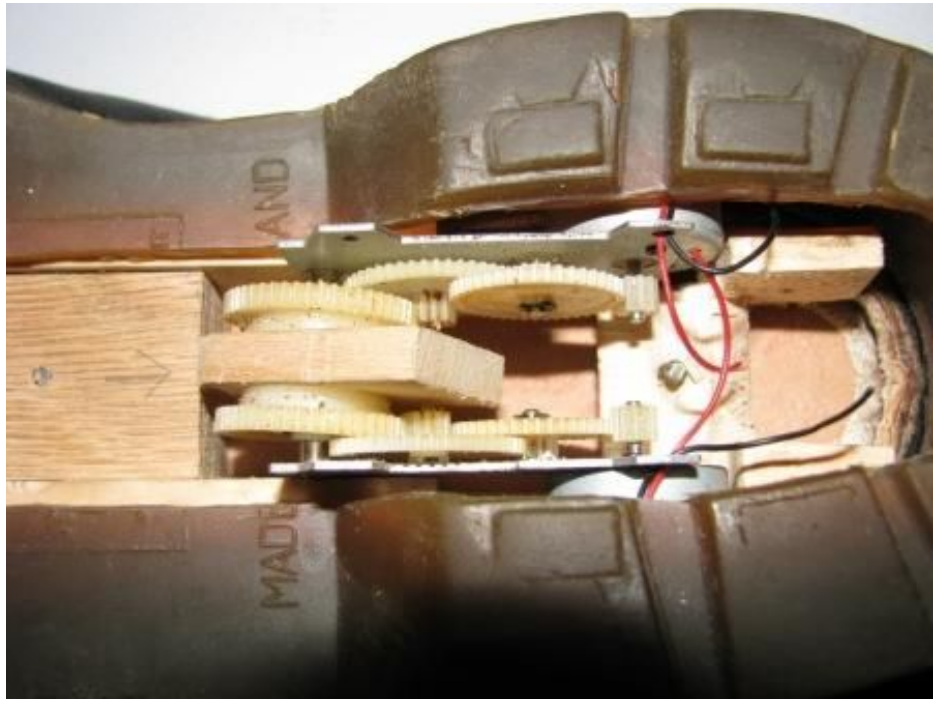
Step 7: The Spring

(http://cdn.instructables.com/FCW/DTY6/FTK8A4SF/FCWDTY6FTK8A4SF.LARGE.jpg)

(http://cdn.instructables.com/F20/0UN7/FTK8A4S5/F200UN7FTK8A4S5.LARGE.jpg)

The spring is used to push the lever back to the starting position after it has been depressed.
I started by cutting a small piece of re-bar and putting a hole in it. This will go in between the two towers of the back block and the wire will go through the hole.
Then, I got a small spring and slid it over the re-bar.
Now the whole thing is ready to together and in the shoe.

Step 8: Putting it all together



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(http://cdn.instructables.com/F1V/IOIU/FTK8A4OZ/F1VIOIUFTK8A4OZ.LARGE.jpg)

Now we have to put it all together. First, connect the back block to the front assembly. Then, slide the whole thing into the shoe and screw it into the sole.

Next, cut t harger and split and strip the ends.
Pass the c e shoe and connect the charger wires
to the gene xposed part of the wires in electrical
tape.
Now for th le of the shoe, about where the holes
in the towe n the shoe, back block, and spring
assembly. to about 1" and just fold it over.
All that is l the lever.

(http://cdn.instructables.com/FHT/DVYQ/FTK8A4TJ/FHTDVYQFTK8A4TJ.LARGE.jpg)

Step 9: The Lever

(http://cdn.instructables.com/FO4/AK2M/FTK8A4TI/FO4AK2MFTK8A4TI.LARGE.jpg)

(http://cdn.instructables.com/FDZ/GQXA/FTK8A4SR/FDZGQXAFTK8A4SR.LARGE.jpg)

Now you connect the lever which is the part which you actually step down on. I drilled a series of hole in one side of a skinny piece of wood, then threaded it onto the spring. Then I connected it to the axle wood with some strips of gutter pipe and some screws. It doesn't look too fancy, but it is actually pretty sturdy.

Step 10: Fininishing Touches/ Conclusion

(http://cdn.instructables.com/FFR/RUQ6/FTK8A4SY/FFRRUQ6FTK8A4SY.LARGE.jpg)

(http://cdn.instructables.com/FDZ/GQXA/FTK8A4SR/FDZGQXAFTK8A4SR.LARGE.jpg)

Now you're finally done. You can add some finishing touches by filling in the extra spaces with clear silicone, smoothing any edges, and giving your shoe a

good shine!
Just in case you're in doubt, the shoe really does create electricity. Even though it doesn't look very fancy, I think its pretty cool that you have an independent and green power source wherever you go. All you have to do is walk.
Again, you will probably have to make adjustments for you model because I doubt your shoe will be like mine, but it should be basically the same.
Good luck with your project and thanks for reading my Instructable.

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I Made it! Add Images Make Comment

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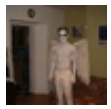

T0BY (/member/T0BY/) 1 month ago Reply

Beautifully done!! You wouldn't want to tread in dog poo though.
(/member/T0BY/)

DanM37 (/member/DanM37/) T0BY 1 month ago Reply

xD
(/member/DanM37/)

Bban (/member/Bban/) 1 month ago Reply

Amazing idea

(/member/Bban/)

kingkaushal (/member/kingkaushal/) 1 month ago Reply

great

(/member/kingkaushal/)

gopalkp (/member/gopalkp/) 3 months ago Reply

it is really good thanks for your time to make this page

(/member/gopalkp/)

very happy .....

Madman146 (/member/Madman146/) 3 months ago Reply

this is really cool what an idea!

(/member/Madman146/)

Jack-ton-of-fun (/member/Jack-ton-of-fun/) 6 months ago Reply

Hello my buddy and I are making this same project for physics. We were wondering if you could contact us and email us some tips on how we can make our project better. Email us at jacksonousley24@gmail.com

(/member/Jack-ton-of-fun/)

amansinghaljpr (/member/amansinghaljpr/) 8 months ago Reply

cool dude !!! contact me on skype my skype name..amansinghal1999

(/member/amansinghaljpr/)

richipitchi (/member/richipitchi/) 11 months ago Reply

very nice, bro.

(/member/richipitchi/)

had the same idea yesterday.

it is useful to google your ideas at first, so you can spare time and work. nice ;D

you could also integrate leds in the shoe :)

MakerHackerBuilder (/member/MakerHackerBuilder/) 11 months ago Reply

This is a creative start. Each step will create a burst of energy. That needs to be filtered and passed along to a battery. You would later charge some device from that battery. Good luck. Question Everything...Stay Curious...

(/member/MakerHackerBuilder/)

om.patel.334491 (/member/om.patel.334491/) 1 year ago Reply

You are genius ..... But what is the amt of electricity generated in one step

(/member/om.patel.334491/)

zishanali (/member/zishanali/) 1 year ago Reply

i buy your project..

(/member/zishanali/)

hamza ilyas (/member/hamza+ilyas/) 1 year ago Reply

http://www.instructables.com/id/Power-Generating-Shoe/step3/Dissect-Flashlights/

(/member/hamza+ilyas/)

hamza ilyas (/member/hamza+ilyas/) 1 year ago Reply

http://www.instructables.com/id/Power-Generating-Shoe/step3/Dissect-Flashlights/

(/member/hamza+ilyas/)

darda (/member/darda/) 1 year ago Reply

can i buy your project? i want to modify it.

(/member/darda/)

Fijvect (/member/Fijvect/) 2 years ago Reply

How much power can this generate (volts and amps if applicable)? And does the motor output DC or AC? I need to know before I attempt this to see if it's even feasible for what I want to do

(/member/Fijvect/)

neehar_nee (/member/neehar_nee/) Fijvect 2 years ago Reply

same doubt....did u get any info on the output of this shoe??

(/member/neehar_nee/)

neehar_nee (/member/neehar_nee/) 2 years ago Reply

hi.....can u pls tell me the (approx.) output voltage of this shoe?... how about implementing the idea using piezoelectic crystals??.....will it be cost effective?

(/member/neehar_nee/)

engr.zainshah (/member/engr.zainshah/) 2 years ago Reply

Can I have this Project I cant Make it I tried It many ways
In Big trouble
i can buy it

(/member/engr.zainshah/)

jonnyd55 (/member/jonnyd55/) 3 years ago Reply

Imagine doing an irish dance in these! you'd get lighting bolts coming out your shoes! :)

(/member/jonnyd55/)

crockman1 (/member/crockman1/) jonnyd55 2 years ago Reply

bahahahahahah yes

(/member/crockman1/)

tinker234 (/member/tinker234/) 3 years ago Reply

so if i had to use this how much would i genrate

(/member/tinker234/)

ANDY! (/member/ANDY%21/) 3 years ago Reply

Real cool!

(/member/ANDY%21/)

olavxxx (/member/olavxxx/) 6 years ago Reply

lol, I have always been thinking about a shoe with a fan inside.. you know those hot days, you really need a small pc fan inside the shoe :-)

(/member/olavxxx/)

mutput7 (/member/mutput7/) olavxxx 4 years ago Reply

"Ohh, I'm so hot..."
takes off shoe, points sole at face
"Ahhhhh"

(Other person)
". . ."

(/member/mutput7/)

nutsandbolts_64 (/member/nutsandbolts_64/) mutput7 4 years ago Reply

(/member/nutsandbolts_64/)

That would be bad because, well, you're pointing an odor filled shoe to your face (unless you used a foot deodorant or something, you're in bad luck).

jimmytvf (/member/jimmytvf/) nutsandbolts_64 3 years ago Reply

(/member/jimmytvf/)

if the problem is the odor, try to put a fan above the shoe, will take all the bad air from your foot ^^

dfedde (/member/dfedde/) olavxxx 4 years ago Reply

(/member/dfedde/)

why bother converting it to electrical energy then just make a machanical fan

Dipanjana (/member/Dipanjana/) 4 years ago Reply

(/member/Dipanjana/)

ohh wow !!! this is awesome ...

Roxas1313 (/member/Roxas1313/) 5 years ago Reply

(/member/Roxas1313/)

hey,2 questions,when you mean rechargeable,do you mean the crank generator?because the picture you have is a hand cranked generator and 2 flashlights.And 2nd,what about the spring,where did you get that and what's its exact name?

survivorwolf (/member/survivorwolf/) Roxas1313 4 years ago Reply

(/member/survivorwolf/)

For the wire question: You can make it as long as you desire but i recommend using a plug that you place wire from the device to the

object being charged

rbond1 (/member/rbond1/) 4 years ago Reply

(/member/rbond1/)

Heyy, I was wondering how you actually get the gears to spin, seeing as they need to be cranked by a handle to get them to turn. Thanks!

soona1991 (/member/soona1991/) 5 years ago Reply

(/member/soona1991/)

hi buddy nice work...
but tell me one thing when we step on it suppose the gen runs in clockwise direction.. but when we remove the gen will move in opp direction...
how to tackle that...

post your ans on rohan.yadav1991@gmail.com

tec_claudio_perez (/member/tec_claudio_perez/) soona1991 4 years ago Reply

(/member/tec_claudio_perez/)

The motor only turns in one direction, when you step down, when you step up the motor doesn't move. This is done using a ratchet wheel.

Phrozexiah (/member/Phrozexiah/) 4 years ago Reply

(/member/Phrozexiah/)

i tried doing the same concept but instead of doing it like this, i used wheels so that the flow of the current is continuous as the user skates. unlike this one that uses stepping that would only make the generator turn back and forth...:))
and i am proud to say it is successful...XD

gunman15 (/member/gunman15/)

what if you hear air escapeing

4 years ago Reply

(/member/gunman15/)

Nadsautin (/member/Nadsautin/) 4 years ago Reply

has anyone tried it before ???

(/member/Nadsautin/)

I and my team wants to imply this as our final term project... please help

L9OBL (/member/L9OBL/) 5 years ago Reply

you use dynamo flashlights. you could also do it with those shake flashlights eh?

(/member/L9OBL/)

Delaney (/member/Delaney/) 5 years ago Reply

I'm not sure if anyone mentioned this, but I would not attempt to go through an airport while wearing those

(/member/Delaney/)

fearme36 (/member/fearme36/) Delaney 5 years ago Reply

Rofl!

(/member/fearme36/)

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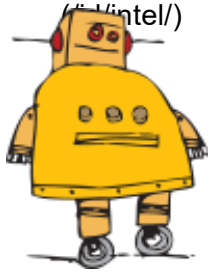

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