

BUOY

by [Patenteux du Nord](#) on January 22, 2009

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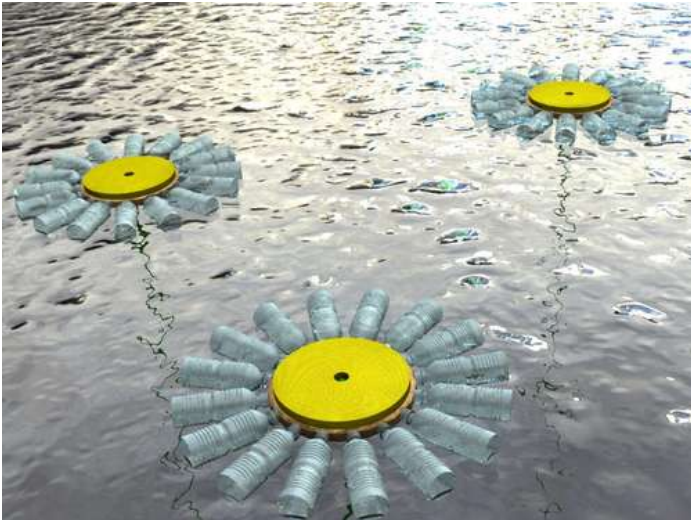
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Intro: BUOY

My parent's cabin does not have drinkable tap water, so we use a lot of water bottles, juice bottles and all kind of bottles (my father prefers beer bottles). There is also no recycling system in this area, so we have to bring all these containers back home. I found a way to reuse them (using only my father's tool box) by turning them into a useful, good looking and entertaining buoy for the lake. They can be used as seats for exhausted swimmers, anchor for your kayak or rock warning... It is also really fun to try to run on them like in a Japanese game show...

p.s. Read the comments to learn how to make it a floating tray, a lantern, a water distiller, an electricity generator (solar or wave motion), a clock, a raft, a floating island, a fishing rope...

Thanks for all your great ideas, Jeff-O, iSmack, Btop and all the others.



Step 1: What you need

You will need:

- A board of wood or plastic at least 0.5 inch thick (no fiberboard)
- A saw
- A plastic rope
- A lighter
- A knife
- 16 Pan Head screws
- 16 water bottles and their caps
- Paint (the color you want)
- A piece of flexible foam (1/2 inch thick and more), like a square of Play Mat (I took my little sister's)
- Teflon tape or silicone tube (optional)
- A drill
- A hot glue gun



Image Notes

1. A saw
2. A piece of flexible foam, like a piece of Play Mat
3. A knife
4. 16 Pan Head screws
5. A lighter
6. Teflon tape or silicone tube (optional)
7. A hot glue gun

8. A drill
9. Paint
10. 16 water bottles and their caps
11. A rope
12. A board of wood or plastic at least 0.5 inch thick

Step 2: Step 1

With a drill or a punch, make a hole (the size of your screw in the middle of the HDPE caps.

p.s Do not use a nail, it would stretch the plastic.



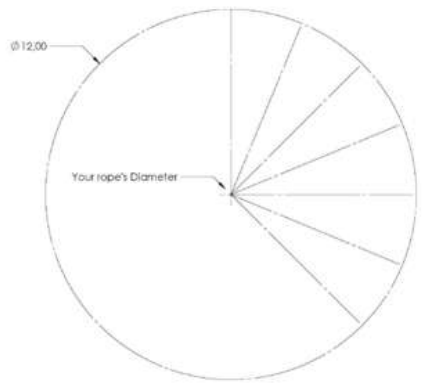
Step 3: Step 2

Cut a circle in your board. The diameter should be about the size of your foot. If you don't have feet, (sorry) make that 12 inches. You can sand or cut 16 equal flat surfaces around the circumference. Drill a hole in the middle, the size of your rope.



Step 4: Be precise

Make sure to mark your board correctly



Step 5: Step 3

Drill 16 holes at equal distance. Make sure the drill is in line with the center of the circle.

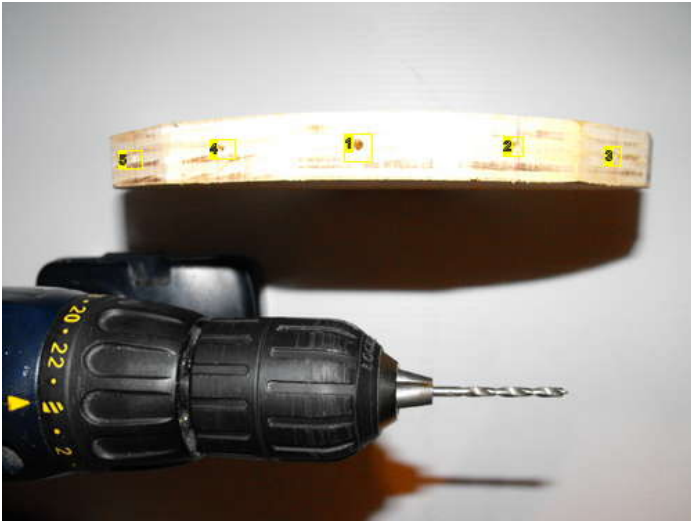
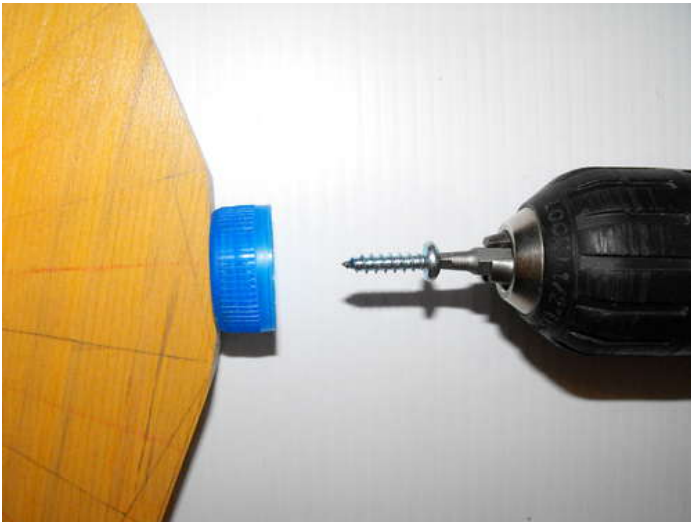


Image Notes

1. hole
2. hole
3. hole
4. hole
5. hole

Step 6: Step 4

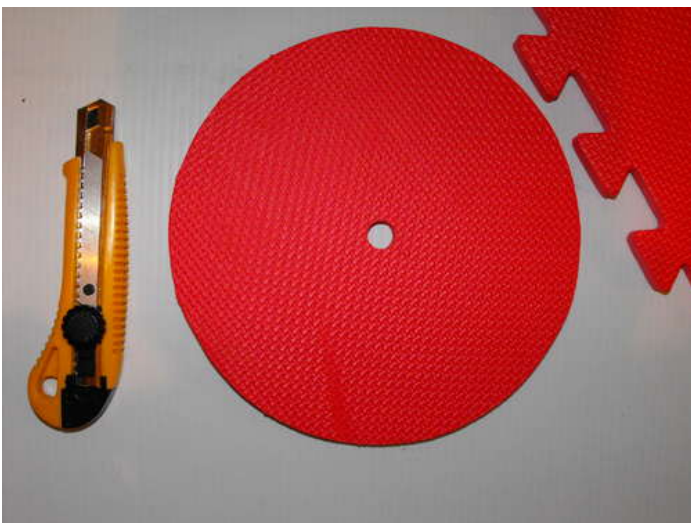
Screw the caps to the center piece. (Adding a drop of silicone in the middle of the hole will make it water tight longer)



Step 7: Step 5
Paint it!

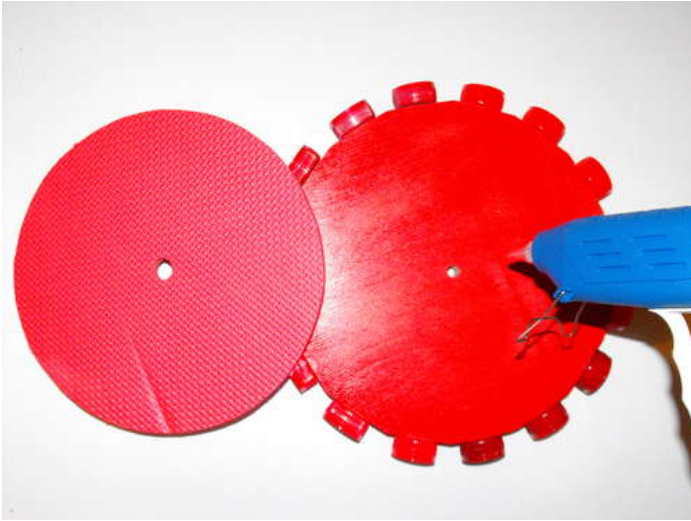


Step 8: Step 6
Cut an 11 inch circle in the foam board. Make a hole in the middle (two times the size of your rope).



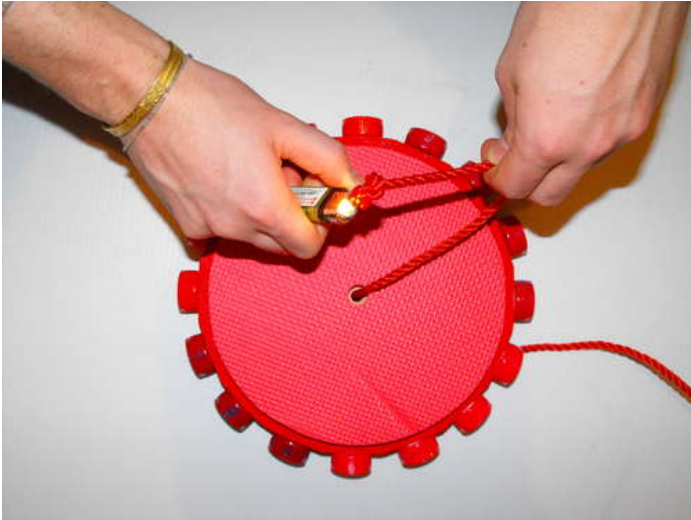
Step 9: Step 7

Glue the foam on the board. (Perfectly centered please)



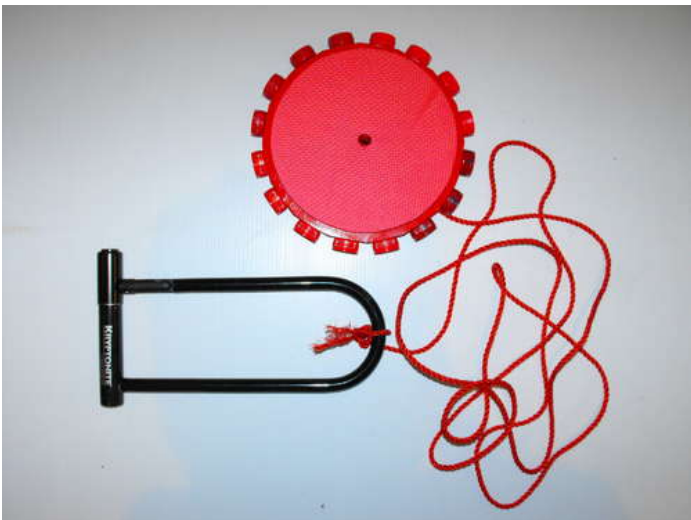
Step 10: Step 8

Make a tight knot in the rope after passing it through the hole. Melt the strings together (do **NOT** breathe the fumes).



Step 11: Step 9

Adjust the length of the rope depending on where you decided to anchor the buoy. Tie the other end to something heavy but easy to carry (like a bike lock that lost its key).



Step 12: Step 10

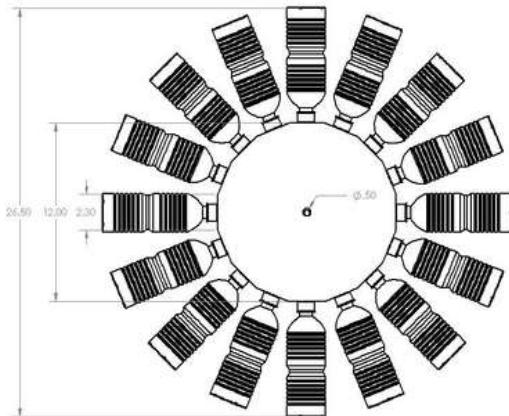
Screw the 16 bottles to the center piece, adding silicone or Teflon tape if you notice any leak, and you got a wonderful multipurpose BUOY. Once you finished and tested the first one, you can keep saving your bottles to make new ones varying in size, shape and colour.



Step 13: Dimensions

Doesn't it look like an uploading icon?

(Just early enough for you to make one this summer!)



Related Instructables



Project rRaft - Building a Raft out of Water Bottles by Weissensteinburg



Rescuing someone fallen overboard from a boat by adaviel



Artificial Fish Habitat by larrynvi



Incredible Soda Bottle Pontoon Boat by deceiver



Water Bottle Raft by mojoeminnich





Fun with bottles by belsey


Comments


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
 **maurice1993** says: Jul 19, 2010. 7:52 PM [REPLY](#)
this just gave me the idea of a crazy trap for fish
just in the place of the good looking red rope, put some heavy duty fish rope, with a fishhook on tip.... must work like a charm! hehehe
next summer I'll try that! (it's winter now here... not much fish to do fishing...)


 **TechDante** says: Apr 17, 2010. 11:15 AM [REPLY](#)
very nice idea. you say swimmers can sit on this, how boyant is this then as 16 2litre bottles must be able to hold up a person

 **kcls** says: Apr 17, 2010. 10:31 AM [REPLY](#)
You could make fifty of them, and put solar panels on top of each. Then, wire 'em all up to a central battery, and power something! Then it would be *truly* green. Are most wires waterproof? could you run them underwater for a long time?

 **knektek** says: Oct 25, 2009. 1:08 PM [REPLY](#)
you can build about 15-20 layers of BUOY and get some pvc piping to connect the Buoy's together and the bottles to make a water butt (obviously with a huge funnel to collect the water). and did the word BUOY come from the word buoyancy...

 **timebandit00** says: Sep 28, 2009. 9:36 PM [REPLY](#)
Love the idea, but I can't try because I don't have a pool or lake nearby.


 **james.mcglashan** says: Sep 11, 2009. 11:06 PM [REPLY](#)
What is this made for? What does it do? How much does it cost? Is this used to collect water?

 **Patenteux du Nord** says: Sep 12, 2009. 5:32 AM [REPLY](#)
The answers to all your questions are all in the project's explanations.... but I'll make it quick -Buoy -Buoy -Absolutly nothing -No Thanks for your interest
Have a nice day.


 **james.mcglashan** says: Sep 12, 2009. 6:36 PM [REPLY](#)
is this just for looks?

 **NatureBoom21** says: Sep 18, 2009. 9:44 PM [REPLY](#)
Maybe.

 **james.mcglashan** says: Sep 12, 2009. 6:35 PM [REPLY](#)
what is a buoy?

 **NatureBoom21** says: Sep 18, 2009. 9:44 PM [REPLY](#)
<http://en.wikipedia.org/wiki/Buoy> A Buoy is a floating devie used for many purposes.

 **james.mcglashan** says: Sep 19, 2009. 10:36 PM [REPLY](#)
aahh ok

 **Patented** says: Aug 10, 2009. 12:32 PM [REPLY](#)
Vraiment cest une bonne idée! Mais est que a la longue les bouteilles vont pas devenir verte? (a cause des algues)

 **Patenteux du Nord** says: Aug 10, 2009. 1:20 PM [REPLY](#)
elles se salissent un peu, mais pas autant qu on pourrais le croire.



thekiss says:

Feb 11, 2009. 12:26 PM [REPLY](#)

Can't wait to try these for my dam at my eco friendly studio!



knexguns656 says:

Mar 24, 2009. 8:23 PM [REPLY](#)

well nice idea and a good idea for recycling bottles.they would work good as platforms for drinks in a hot spring.and im just curious but can you sit on them without making them sink if they were big enough and you were light enough?. again nice idea cheers



Patenteux du Nord says:

Mar 25, 2009. 3:07 PM [REPLY](#)

Merci! You would need a lot of them to sit without sinking at least a few centimeters. The platform would actually be so big that you could almost sleep on it. With 18 bottles, an average man (sitting) has water up his bellybutton, wich is not that bad (but a part of you will be a bit cold).



sjoobbani says:

Jun 21, 2009. 11:00 AM [REPLY](#)

Tres bien, tres bien !!! I took a cot, with an aluminum frame and clothe "matress" and put water bottles all around it, and then another "layer" there are so many, no I can sleep on it, when I go to the lake in the summer and I use the buoy I made to anchor me and hold my drinks, merci beaucoup, c'est un invention qui est necessaire! :P



phucall-fitz says:

Jun 4, 2009. 3:42 PM [REPLY](#)

didn't someone make an island, complete with house and garden. Thought I saw a program about it, he used recycled plastic bottles captured in nets.The possibilities are endless,great instructable. all the best from england uk



matrix43547 says:

Jun 8, 2009. 8:59 AM [REPLY](#)

ya that was awesome, he even had trees growing on it



peoplerstupid says:

Feb 26, 2009. 5:57 PM [REPLY](#)

i saw this featured a while back, i love the idea it looks cool and while it may put plastic in lakes it is still better than a landfill



snowpenguin says:

May 20, 2009. 11:25 AM [REPLY](#)

You don't leave it in the lakes!



ElectricUmbrella says:

Apr 27, 2009. 6:21 PM [REPLY](#)

So many uses, so little time!!! This is brilliant! Nicely done.



L a n a says:

Mar 13, 2009. 8:05 PM [REPLY](#)

hey, just wanted to say congratulations, you deserve it! This project is really great. I can't wait to try it out keep up the good work :)



eRosinski says:

Feb 28, 2009. 12:09 PM [REPLY](#)

Try spraying a color that contrast with the water on the inside of the bottle in a fluorescent color even. But I agree with some other about junk in the lakes but maybe if its kept in top condition its okay.



leufreitas says:

Feb 27, 2009. 5:00 AM [REPLY](#)

good



scoutster says:

Feb 21, 2009. 2:32 AM [REPLY](#)

No offense, but keep the plastics out of the lake. Will you be there to recover the buoys when they break free and float across the lake and end up tangled up on some beach? The sun degrades plastic and your project only adds plastic particles / dust to the lake.. Those buoys lay low in the water, and I would be pretty darn peed off if I hit one in my boat.. I know your intentions are good, but no offense - I don't like your project.



Patenteux du Nord says:

Feb 21, 2009. 7:57 AM [REPLY](#)

No offense, but boats probably is the first cause of pollution on your lake... first step would be to stop driving one. Second, if you take a look at the embankment buoys already on your lake, you'll notice that most of them are already made of HDPE and PET, but I agree that plastic particles could be a long term problem because they take centuries to biodegrade... but it's nothing compare to your boat (unless you were talking about a catamaran). Have a nice day and thanks for the constructive comment.



erikos kostarikos says:

Feb 20, 2009. 7:47 AM [REPLY](#)

maybe if i ask my father for the things i need, i could make it. its a very cool thing and looks funny.

nice done=]



Capt. Fat says:

This is perfect for people in Newfoundland. Would you be able to make a giant one and use it as a raft?

Feb 13, 2009. 5:54 AM [REPLY](#)



Patenteux du Nord says:

I hope It would work, but you'll need a lot of bottles and a big board. You also must raise your platform a bit.

Feb 13, 2009. 6:53 AM [REPLY](#)



Capt. Fat says:

Okay, Thanks

Feb 14, 2009. 5:53 AM [REPLY](#)



thepelton says:

Like I was saying. You would need a Litre bottle for every Kilogram of weight. Two grown men would probably demand over 150 Litres, depending on their size.

Feb 19, 2009. 11:14 PM [REPLY](#)



specopps117 says:

how do you make the island?

Feb 18, 2009. 1:33 PM [REPLY](#)



Emeric Seguin says:

Quel est la charge maximale que les BUYO peuvent supporter ? Possibilite de supporter un corps humain (moyen) ? Merci, -Emeric

Feb 8, 2009. 9:49 AM [REPLY](#)



thepelton says:

I don't know French, but I guess you are asking about how many bottles you would need to make the thing buoyant enough to support a person's weight. Right? You would need at least about as much as would hold the same amount of water as your mass. If you weigh 50 KG, then you would need 25-2 Litre bottles. Correct me if I am wrong. And translate it for Emeric.

Feb 16, 2009. 10:52 PM [REPLY](#)



Emeric Seguin says:

Thanks for your time and the answer you provided. -Emeric

Feb 18, 2009. 10:00 AM [REPLY](#)



Patenteux du Nord says:

I think he speaks english to, but thanks for answering this question. It makes sens. -sam

Feb 17, 2009. 5:29 PM [REPLY](#)



Emeric Seguin says:

You think, hein ?

Feb 18, 2009. 10:01 AM [REPLY](#)



sensoryhouse says:

congrats...i had my vote!

Feb 15, 2009. 7:01 PM [REPLY](#)



kamathln says:

Brilliant !! An LED in each bottle might add function/beauty to this, no? They can proably be powered by multiple sources. simple battery, battery charged by wave motion/solar, or if in salt water, can be powered by salt water itself.

Jan 29, 2009. 9:50 PM [REPLY](#)



thepelton says:

I had been thinking the same thing about sea water. You would just need a little zinc and a little copper piece for the battery poles.

Feb 14, 2009. 11:30 PM [REPLY](#)



thepelton says:

Maybe two different coins might work.

Feb 14, 2009. 11:34 PM [REPLY](#)



clemsonguy1125 says:

where did you you get the foam and how did you cu a circle with a hack saw

Feb 13, 2009. 4:08 PM [REPLY](#)



Patenteux du Nord says:

Feb 14, 2009. 6:33 AM [REPLY](#)

The foam was from a kid playing mat. The circle is really easy to make with a compass, you cut it with an x-acto and finish it with paper 200. Good luck!



clemsonguy1125 says:

Feb 14, 2009. 7:49 AM [REPLY](#)

whats paper 200



Patenteux du Nord says:

Feb 14, 2009. 9:43 AM [REPLY](#)

It is a sanding paper grade. There is different grade (from 40 to 1000) the smaller is the number, the less grain there is, the more material it sands in the way. 40 to 150 is for rough jobs while 400 to 1 000 is for finish. 200 is perfect to do in between. I suggest you buy the black waterproof kind, because it lasts longer if you clean it with water. There are a hundred ways to make a circle in a foam sheet... this just is one. You can also use the hole in the middle as an axis to cut the edges with a vertical electric saw... but you need the equipment. Be creative! Put a nail in the middle attached to a string and then use this string to keep your knife and equal distance of your center... clean, easy and no sanding needed. Have a nice day. -Sam



thepelton says:

Feb 14, 2009. 11:32 PM [REPLY](#)

You can clean sandpaper and extend its life with a crepe rubber eraser.



clemsonguy1125 says:

Feb 14, 2009. 10:43 AM

(removed by author or community request)



Patenteux du Nord says:

Feb 14, 2009. 2:44 PM [REPLY](#)

no, for the wood you use a saw.

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