

Uncle John's portable solar water distiller (For Survival)

by **scouttster** on September 6, 2009

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Intro: Uncle John's portable solar water distiller (For Survival)

This is something I made on a whim.

Its very simple to do and the pictures pretty much self-describe the directions to make it. Any old 2 liter plastic soda bottle will work. I made a 2 liter small one and a larger jumbo 3 liter.. But you can even use a 1 pint plastic soda bottle or even a larger water bottle of some type. The options are endless. (elongated design) The key with this is the flip back catch edge trough that collects the water.

Materials:
2 liter soda bottle
utility knife
lighter
Black rag

Step 1 - cut the bottle in half using the utility knife

Step 2 - fold a 1" or 2" lip back into the inside of the bottle (this is the trough) Use the lighter if you need some heat to help it bend back in. Sometimes, you can do it without the lighter.

Step 3 - wet down the black rag with the nastiest water (urine?) you can find and set it in the sun. The nasty water will evaporate and condense on the inside sides of the bottle and find its way down into the trough.

Step 4 - when you notice enough water has collected in the trough, carefully remove the bottle from the nasty black rag and flip it over quickly.. The water now flows the other way and ends up in the cap.. Carefully remove the cap and drink the water.









Step 1: Cut the bottle in half

Remove the labeling and mark the bottle about halfway. Next, cut the bottle in half using the utility knife or scissors.





Step 2: Creating the trough

Fold a 1" or 2" lip back into the inside of the bottle (this is the water trough) Use the lighter if you need some heat to help it bend back and in. Sometimes, you can do it without the lighter. The lighter isnt always necessary.



Step 3: Making Clean Water

Wet down the black rag with the nastiest water (urine?) you can find and set it in the sun. The nasty water will evaporate and condense on the inside sides of the bottle and find its way down into the trough. When you notice enough water has collected in the trough, carefully pickup the bottle from the nasty black rag and flip it over quickly.. The water in the trough now flows the other way and ends up in the cap.. Carefully remove the cap and drink the water.





Related Instructables



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(Photos) by Computothought



Cheap and Easy Passive Solar Water Heater for your Home.
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Solar Car Battery Charger DIY by TimAnderson



Care and Feeding of Fog Machines by Tiller



using Solar Cells, To make Glass frame DIY Solar Panel by EARTHFOR SOLAR

Comments

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skippingrocks says:

Do you know if there is any concern about the plastic leaking chemicals into the distilled water? This is a fantastic idea. I guess I am just paranoid with all the talk about chemicals being leaked from plastics into food and water when the plastics are heated.

Apr 28, 2010. 11:00 PM [REPLY](#)



scoutster says:

There could be a concern for that.. I really dont know.

I think if it was being used in an emergency situatuon and people were desperate for water - BPA (Bisphenol) would be the last worry.

You could try to make one out of glass

Apr 29, 2010. 4:13 PM [REPLY](#)



bethg761 says:

great instructable, seems like a very good idea

Oct 27, 2009. 4:39 PM [REPLY](#)



bears0 says:
I can't believe it would actually distill pee

Sep 25, 2009. 4:20 PM [REPLY](#)



scouttster says:
Maybe you could WIKI " urine " and read all about what urine actually is..... FYI, urine is 95% water

Sep 28, 2009. 2:22 AM [REPLY](#)



jtobako says:
So...how many are you going to need per person when you really need to distill water?

Sep 8, 2009. 3:22 PM [REPLY](#)



scouttster says:
I think it was Steve Callahan that said he survived an ordeal at sea on 4 or 5 oz of water a day for 50 or 60 days before he spotted land and was rescued. He mixed about 3 oz of fresh water (sometimes from a solar distiller) with an oz of sea water and sometimes an oz of urine and drank away. Sure, his body slowly withered away, but this small amount sustained him and kept him holding on another day longer.. Without any water, most die in 3 or 4 days. I think the larger unit could easily produce 4 or 5oz of water in a 10 hour day in the tropics.

Sep 9, 2009. 8:32 AM [REPLY](#)



maxman says:
Excellent Instructable ! Thank you.

Sep 7, 2009. 8:08 PM [REPLY](#)



ac1D says:
Genius! Really good idea, really good instruction. Was able to do it on my own after I seen the introduction. Good job on this instructables!

Sep 7, 2009. 8:56 AM [REPLY](#)



fegundez1 says:
living in hurricane Florida I have built distiller type devices for kits for a long time. But this is a great idea that even the most tool/diy challenged can make good use of! Great idea!

Sep 7, 2009. 5:01 AM [REPLY](#)



Transquesta says:
No kidding, dude. This is the kind of thing which will get you honorable mention in the bye and bye if nothing else. The bigger the bottle, the better the idea!

Sep 6, 2009. 7:32 PM [REPLY](#)



srohwer says:
Utterly, freakin' brilliant. You could even put a small can painted black in it.

Sep 6, 2009. 6:06 PM [REPLY](#)



Megax29 says:
good Instructable and just think that you might save a life someday in an emergency

Sep 6, 2009. 5:41 PM [REPLY](#)



IdahoDavid says:
very clever.

Sep 6, 2009. 1:53 PM [REPLY](#)