

Build a Solar Shower

Parts List(get these at any decent hardware store for about \$30)

4 1/2 feet 3 inch diameter black ABS pipe

2 3 inch 90 degree black ABS pipe fittings with 2 female ends

2 3 inch 90 degree fittings with 1 female and 1 male end

1 3 inch T fitting with 2 female 3 inch ends and 1 female 2 inch end

1 3 inch T fitting with 2 female 3 inch ends and 1 1.5 inch end

1 2 inch male to 2 inch female threaded fitting

1 2 inch threaded plug

1 1 1/2 inch male to 1/2 inch threaded female fitting

1 1/2 inch ball valve with 2 female ends

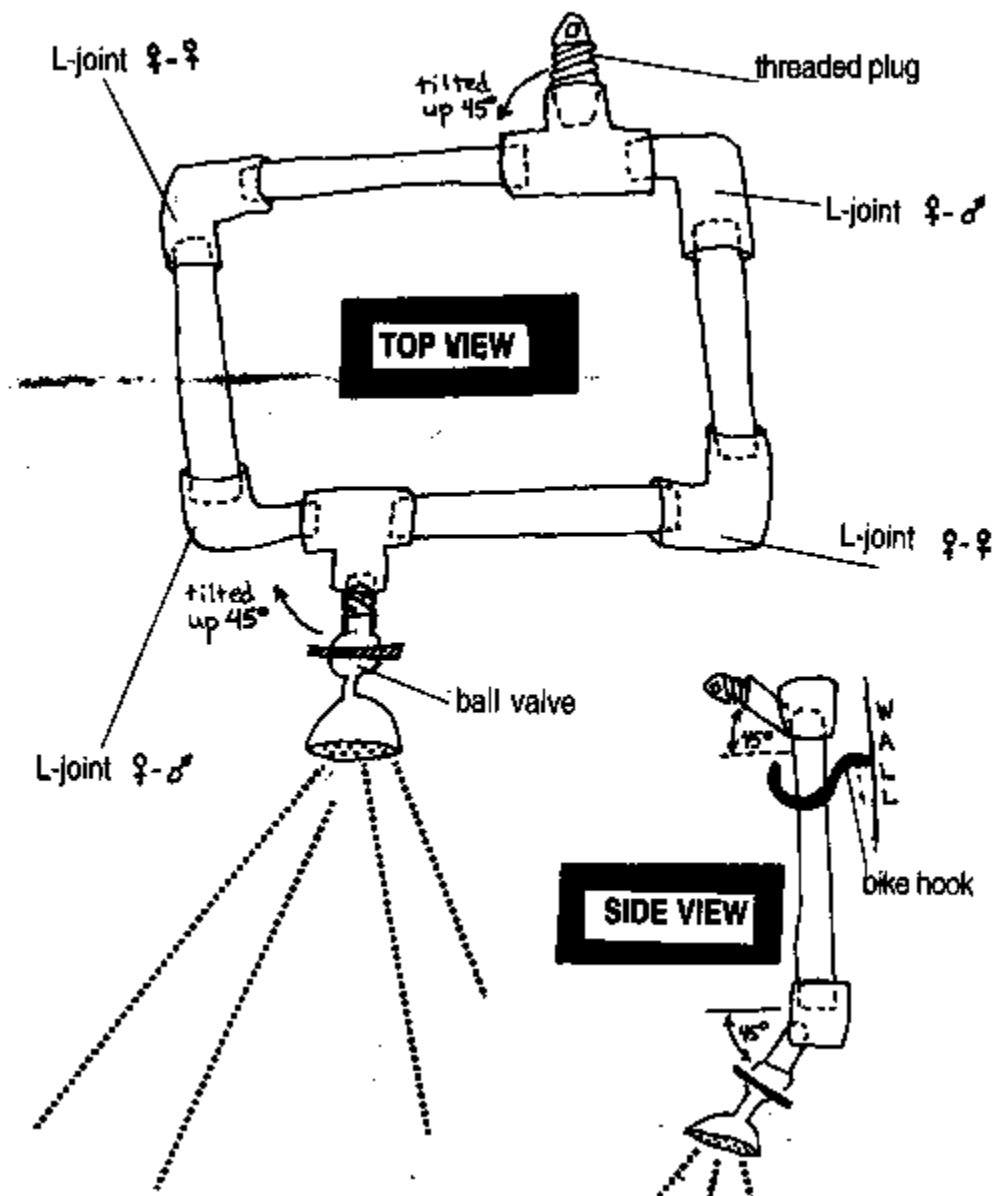
1 1/2 inch male to male threaded fitting

1 1/2 inch 45 degree male to female fitting

1 un-restricted, high flow shower head (I use a plant watering can attachment — a hose fan spray attachment would also work — a low flow showerhead won't work because it requires high water pressure to work, which this system won't create)

Two bike hooks for your shower stall

Multi-purpose plastic pipe cement



You cut the section of pipe into 2 14 inch sections and 2 12 inch sections and then connect all this stuff together with the plastic pipe cement as show in the diagram. Don't glue any of the threaded joints — the one on top is for filling and the one at the bottom is so you can remove the shower head assembly for cleaning, etc. What you have at the end of the process is a square of black pipe that holds about 2 gallons of water — enough for a 5 minute shower.

You fill the shower with a garden hose, etc., through the threaded 2 inch hole, and then screw down the threaded plug. Then set it out flat in the sun for 1-2 hours, depending on the air temperature. The black pipe absorbs the sun's energy and the water inside will get super hot! Then, you screw the two bike hooks into your shower stall (or if you like

outside showers, onto the side of your house, etc.) so that you can hang the shower on the wall. Put the hooks high enough so that the shower head will be above your head, but not so high that you can't actually hang the shower on the wall. Put one hook in slightly above the other, so the thing will hang a little diagonally, with the shower head at the bottom for full draining, and the filling plug at the top so it won't leak when full.

It will weigh about 20 pounds when full, which might seem heavy at first but you'll get used to it (and build upper body strength!) I suggest sort of sliding the thing up the wall and then over the hooks.

Before you take your shower, you have to loosen the filling plug at the top so air can get into the shower as it drains. Then, get naked, stand under the shower, and turn the ball joint. The water will run out the shower head and make a really nice shower running just on gravity.

You can fill it in the morning and leave it out all day for a shower in the afternoon or evening, or if you have a good spot that gets morning sun, you can generally put it out the night before and take a mid-morning shower. If you leave it out all day, the water will get too hot to use, so you'll have to put it in some shade so it can cool down before you use it.

By the way, the shower saves water as well as fossil fuels — about 2 gallons instead of about 8 for a comparable shower. You also save water because most piped in showers require that you run the water while you wait for it to get hot. My shower at home wastes almost as much water waiting for it to get hot as the solar shower uses for the whole shower!