

Poor Man's Ultrasonic Cleaner

By: John Ream

Here is a real simple way to make an Ultrasonic Cleaner. It's not as nice as a professional unit but a lot cheaper.

Parts List (Fig 1):

- **Palm Sander**
- **Coffee Can**
- **Foam**
- **Bucket**
- **Tape**

Please refer to the attached pictures to guide you. Make sure to remove any sandpaper they're maybe attached to the palm sander. Without plugging in the sander turn it on. You won't have easy access to the on/off switch when done. Tape the palm sander to the bottom of the coffee can (Fig 2). Make sure to keep the sander tight against the coffee can. You want to transmit the vibration into the can.



Figure 1

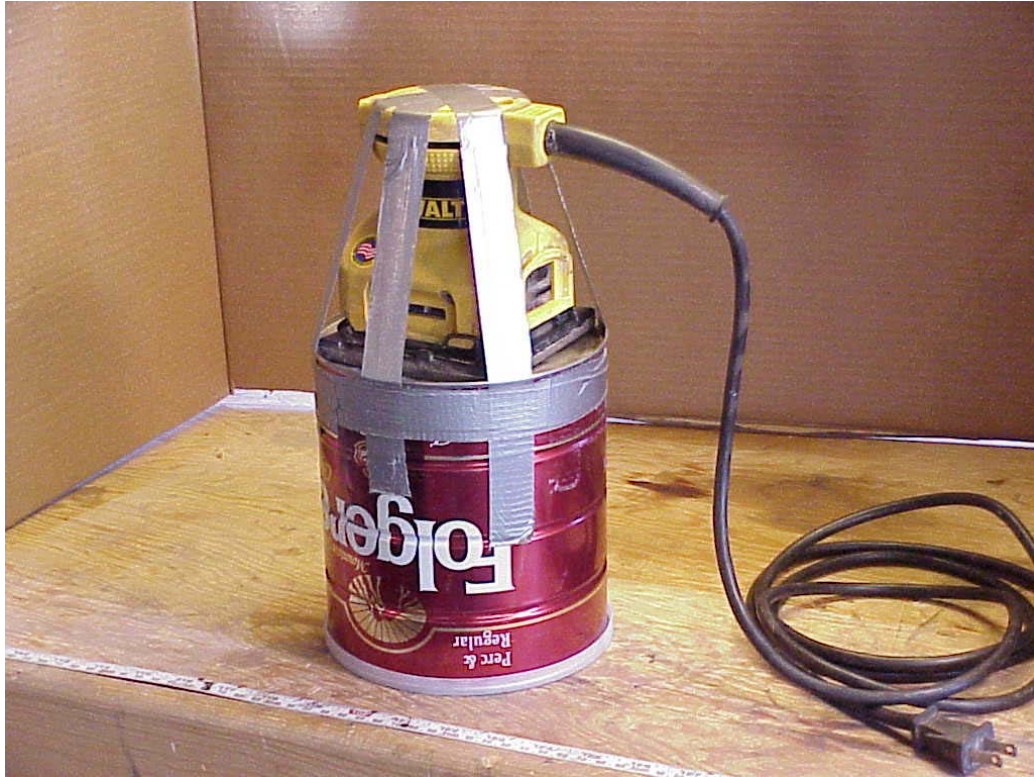


Figure 2

Next, place a piece of foam into the bottom of the five-gallon bucket. This is to isolate the vibration so you will vibrate the can and not the bucket. Then take four pieces of foam (fold them if necessary) and wedge them between the bucket and can (Fig 3). Space them evenly. You can vary the thickness and density of the foam to change the vibration characteristics. Guess what, your done. To test put some water into the can and plug the sander into your wall outlet.



Figure 3

I bet you are saying, “What about the heat“? Well, after a few minutes of run time, heat from the sander will move into the coffee can. You could also cut doors into the bottom sides of the five-gallon bucket and open close them to control air flow (like your Webber BBQ).

For a screen basket I have tried two things. First I purchased some kitchen strainers (\$3-\$5 each) and second I purchased some SST screen and made my own basket (fig 4). Both worked.



Figure 4

I don't know how long the palm sander will last. It wasn't designed for this application. But let's face it, the most expensive item here is the palm sander. They typically last for years and at approximately \$45.00 (or less) you could replace it without much heartache. Also, you can purchase a simple plug-in timer. This would keep you from forgetting and thus not leave the sander going for too long. The only thing I purchased was the screen but a smart shopper could buy all the items for this design for well under a \$100.00.

