

Hand Molding PVC Pipe, Version 1.1

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Sometimes I will make something just for the experience. The elegant way to say this is “*The journey is the destination.*” I also enjoy turning a “*sow’s ear into a silk purse.*”

Here you see an attachment for the throttle on my eBike. Someone is selling a much nicer-looking version that is 3D printed. Although I haven’t been interested in owning this attachment, I was curious how easy it would be to make one.



I started with a 2-inch piece of PVC pipe that most sane people would toss in the trash. I ended up with a functional throttle clip.

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The trick is to heat the plastic up with a hot air gun until it is pliable like thick leather. Then it can be molded by hand. I use my bare hands, but if you are sensitive to heat, gloves are enough to protect you.

Once molded, I spray the plastic with water. It will almost instantly become hard.

If you are not sure of the final shape, make it out of paper first. Then use this model to mark out the pipe.



This is an early model. Notice that the inside diameter is distorted. I just need to remold it.



Using a piece of 1½ inch diameter round stock as my mandrel, I heated up the plastic while holding it with pliers.



Once the plastic became soft, I squeezed it onto the mandrel and then sprayed on the water.



The part is now a close fit to the mandrel.

When done, wash the PVC with acetone and let air dry. This cleans off most of those black marks. The surface will also accept paint better.

I don't expect many people to make this throttle attachment, but maybe it will get you thinking about ways to use the technique. I used it to create [clips](#) to hold my kayak paddles together.

I welcome your comments and questions.

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