

Another Polyethylene featherboard.  
By Don Hart

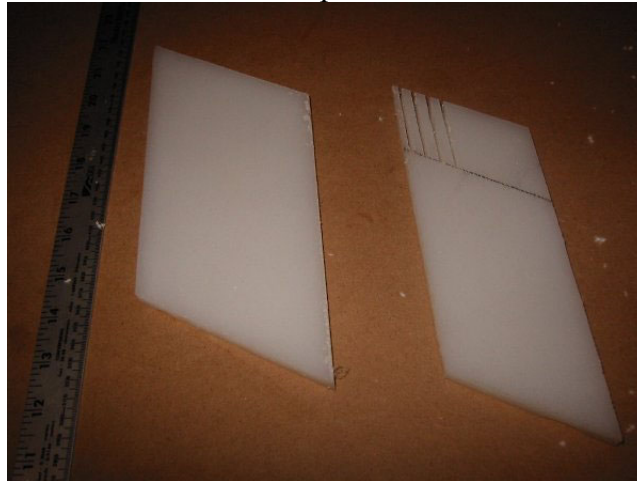
This is the second featherboard I have designed to be made out of a Polyethylene cutting board. The first one was large and used almost the entire cutting board and was designed to mount on the SMT. This one uses less than  $\frac{1}{4}$  of the cutting board and is designed to be able to be mounted to fences of in the miter slot with a Polyethylene slot holder.

The first step in the process is to decide on the length of the featherboard. The length you want will be determined by its application. Since I was building this featherboard to mount in the miter slots I took some measurements from the saw and decided to make the board 7" long.

1. The first step is to cut a piece off the end of the cutting board the length you want the featherboard to be. So you will end up with a piece like this:



2. Then you will want to cut the sides of this piece off at a 30° angle and then cut off a piece the width you would like the featherboard to be. I chose to cut a piece 3" wide.

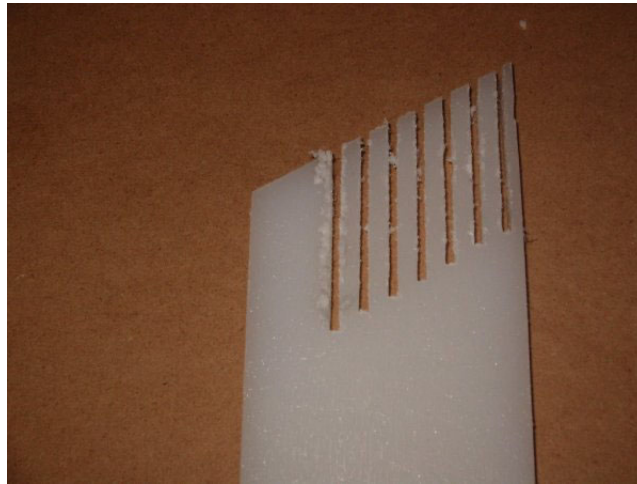


3. Next you will want to cut the slot in the board. First mark the board with where the base of the slots will be. I chose to make 2" fingers on this board. Then using the rip fence cut  $\frac{3}{16}$ " fingers in the end of the board. Start with a cut at  $\frac{3}{16}$ " from the blade and then move the fence  $\frac{5}{16}$ " and make the cuts ( $\frac{3}{16}$ " finger and  $\frac{1}{8}$ " kerf) keep moving the fence and making the cuts until you are finished. You may have to flip the board to cut the last finger if your guard or kickback pawls get in the way. When you get done with the cuts you have something that looks like this:



You may notice that one of my fingers is smaller than the others this is because  $\frac{5}{16}$ " does not go into 3" evenly.

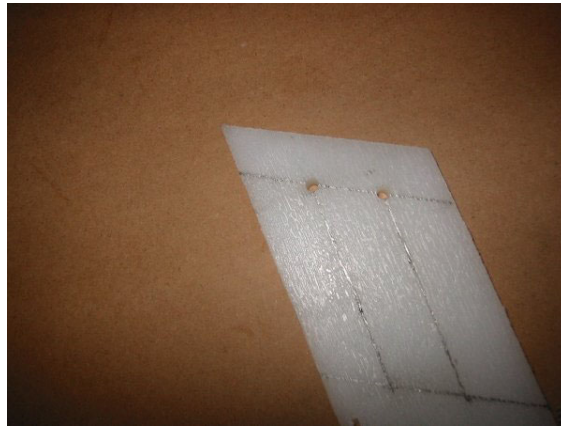
People have asked me if I have any problem cutting poly with the table saw. Well it cuts pretty well but you do get a little melting on the underside of the cut like this



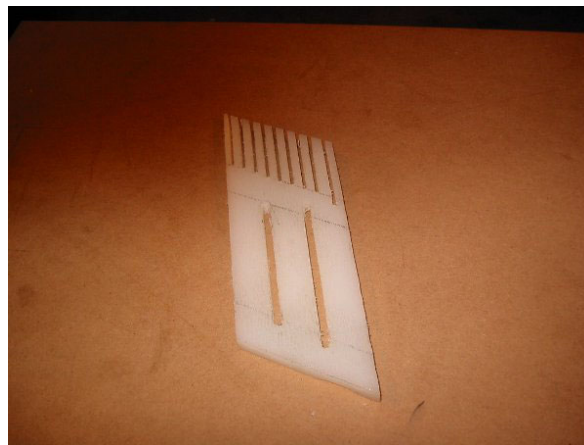
It will scrape off easily with any reasonably sharp scraper. My Weapon of choice for this is the handle 5 in 1 tool sold in the paint dept. at HD shown below.



4. Next you want to mark the board for the slots. You should make them equidistant from the edges of board. Since my board is 3" wide I marked the slots at 1" from the edge. Then drill holes slightly larger than the bit you will cut the slot with. You should end up with something like this:



5. Next using a straight bit in your router cut your mounting slots. Be careful of the router speed as the router can melt the poly. Then clean up the mounting slots. You are finished with the board and it will look something like this:



6. Now we just have to mount the board on the saw. You can mount this in many ways but I am going to mount this one using my miter slot hold down. Here it is on the saw:



That's all there is to it. If you have any questions just post a message in the forums at [www.bt3central.com](http://www.bt3central.com) and I will try to answer them.

Thanks to Sam Conder for running BT3Central one heck of a good site and thanks to all of the guys and gals there for their inspiration