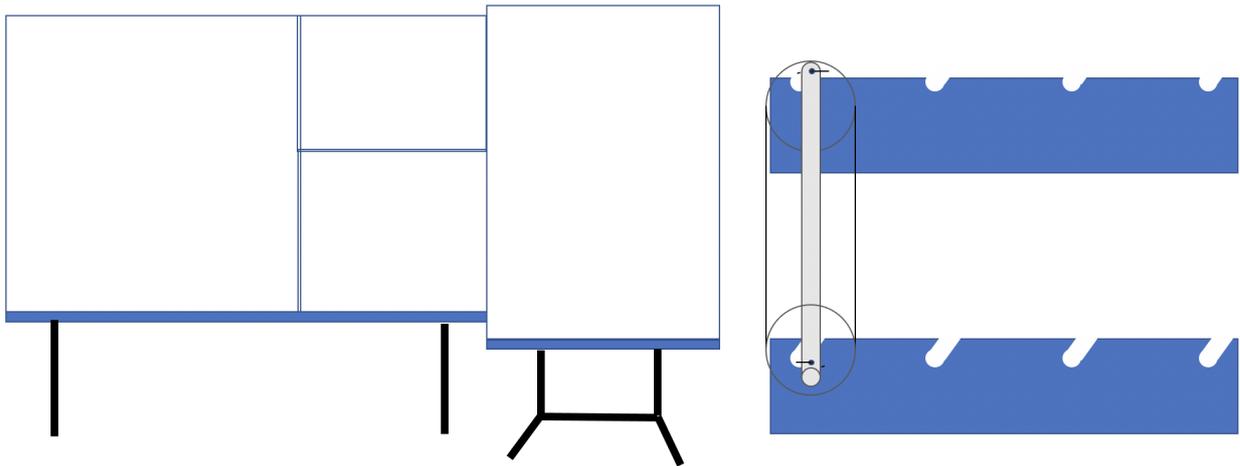


## Tools – Part 4 of 11

This time we are going to talk through some hacks and cheats for reducing your tooling cost. The reality is unless you are a repair station, Mechanic or build a lot of envelopes the likelihood of using special tools again are not very high.

Here are a few things we use that are more useful for other things.



### **Portable/layout table Cutting Table-**

#### **Materials**

3 folding tables 1ea 6'x30in 2ea 30in x 8ft

Small box of ¾-1" drywall screws

1 Roll of 2-3" Masking tape

2 sheets of ¼" plywood

1. Setup the tables 2 8ft side by side and the 6ft at the end
2. Cut the plywood into 2ea 5ft wide x 4 ft sections and 1ea 3ft x 2ft section and 1ea 2ft x 2ft section
3. Organize the plywood so that the plywood seams do not match the table seams. The long ways the plywood should be just slightly shorter, than the length of the folding tables. The table should be exposed on the side where your rolls of fabric will be. The soft taped edge will keep from nicking the fabric as you unroll it.
4. Screw the plywood to the table, if you have one, a countersink bit will help make sure the screw heads are below the surface
5. Tape all of the seams, cover all the screw heads and put at a least 3 layers of tape around the edges. Especially tape the end with the exposed table to make a soft ramp of tape to pull against.
6. Measure and mark on the table 2 points to add screws to later for your cables we will get into this in detail during the assembly discussion.
7. When you finish discard the tape remove the screws and return them to the box and fold up the tables for something else in your garage or basement later.

## **Fabric/Cable/Cord Reel**

Most fabric is between 48-65" wide and comes on rolls that average 12" diameter at most. Thus this should work as a temporary fabric roller.

### **Materials**

1ea 1x6x96" board pine or whatever is cheapest unless you have a strong preference.

3 to 4 3/4-1" x 72" wooden dowels or broom handles

Wire coat hanger

1. Cut the board in half
2. Measure and mark four points 2 in from the long edge 3in from each end spaced evenly between on each board.
3. Use a hole saw to drill a hole that is 1/4" larger than the dowel size at each of the 8 points
4. Use a hacksaw or electric saw to cut an opening diagonal to the hole but the same diameter as the whole. When finished you should be able to drop the dowel into the hole easily not need to slide it in. Repeat for the other 8 holes.
5. Drill a hole 1/8-1/4 in diameter cross ways through the end of each dowel
6. Cut eight 3in pieces of coat hanger and insert in each dowel hole and bend it over so it doesn't fall out. 1 end can be permanent the other end should be easily removable but not fall out when the dowel is rotated.
7. Install the dowel into the roll of fabric and insert the coat hanger pins
8. Place the 2 boards on the floor parallel to your cutting table on the end that is slightly wider.
9. Drop the ends of the dowel into the board slots. With the opening facing up and away from the table.
10. Personally I install my fabric so that the coated side faces down toward the table when unrolled.

Quick tip you can tell the coated side from the uncoated with a sharpie. Make an x on one side and an L on the other about 1 in apart. The non-coated side when flipped over will look like it bled completely through, because it did. The Coated side when flipped over will be visible, but distinctly more faded looking and dull.

Other uses, garage cable or rope reels and a decent outdoor towel rack.

### **Weight Bags**

#### **Materials**

1/3 of yard Any tightly woven fabric scraps of envelope bag material or balloon material is best, but ziploc bags and dirt will work as well.

1. Cut at least 4 pieces 6in wide by 12in long (I personally like having 6 to 8 weight bags.)
2. Fold the fabric in half and sew 2 sides together. Inside out the bag.
3. Fill the bag with shot, pellets or sand.
4. Fold the end and sew the bag shut.

Alt options, ziplocks are good, they make cool cornhole bags for a little more challenge.

Rotary Cutter \$60

[https://www.amazon.com/Circular-Electric-Scissors-Cutting-Machine/dp/B00JGOORGE/ref=asc\\_df\\_B00JGOORGE/?tag=hyprod-20&linkCode=df0&hvadid=219561413405&hvpos=&hvnetw=g&hvrand=15817506116004781670&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmld=&hvlocint=&hvlocphy=9011893&hvtargid=pla-364867201096&psc=1](https://www.amazon.com/Circular-Electric-Scissors-Cutting-Machine/dp/B00JGOORGE/ref=asc_df_B00JGOORGE/?tag=hyprod-20&linkCode=df0&hvadid=219561413405&hvpos=&hvnetw=g&hvrand=15817506116004781670&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmld=&hvlocint=&hvlocphy=9011893&hvtargid=pla-364867201096&psc=1)

Swage tools

[https://www.aircraftspruce.com/catalog/topages/swagingtool\\_12-0000.php?clickkey=6674](https://www.aircraftspruce.com/catalog/topages/swagingtool_12-0000.php?clickkey=6674)

<https://www.aircraftspruce.com/catalog/topages/gonogo.php>

If you are not up to making your own cables, any A&P should be comfortable doing it or aircraft spruce will make, test and ship them to you including a certification form if you like.

Mini Torch

Great for clearing frayed ends of load tape and nylon webbing

[https://www.autozone.com/test-scan-and-specialty-tools/torch-and-supplies/dorman-conduct-tite-electrical-mini-torch/238730\\_0\\_0?spps.s=4482&cmpid=LIA:US:EN:AD:NL:1000000:ELC:71700000060662503&gclid=Cj0KCQiA7NKBBhDBARIsAHbXCB7J67C1sA-bBoD7-CmyxoJBwMX\\_8sWEQhnd0O3CasFea0hUoK4bDPIaAsj9EALw\\_wcB&gclsrc=aw.ds](https://www.autozone.com/test-scan-and-specialty-tools/torch-and-supplies/dorman-conduct-tite-electrical-mini-torch/238730_0_0?spps.s=4482&cmpid=LIA:US:EN:AD:NL:1000000:ELC:71700000060662503&gclid=Cj0KCQiA7NKBBhDBARIsAHbXCB7J67C1sA-bBoD7-CmyxoJBwMX_8sWEQhnd0O3CasFea0hUoK4bDPIaAsj9EALw_wcB&gclsrc=aw.ds)

Mini Hanging Scale

Great for weight and balance and load testing your swaged cables.

[https://www.amazon.com/Outmate-Digital-Crane-600lbs-Plastic/dp/B06X1GY9K4/ref=sr\\_1\\_16?dchild=1&keywords=hanging%2Bscale&qid=1614113760&sr=8-16&th=1](https://www.amazon.com/Outmate-Digital-Crane-600lbs-Plastic/dp/B06X1GY9K4/ref=sr_1_16?dchild=1&keywords=hanging%2Bscale&qid=1614113760&sr=8-16&th=1)

Other uses luggage, fish scale, shipping