

## **Basic notes on assembling the *Montana Spin Pro* dubbing twister**

*(Note: not all steps may be completely covered.)*

- Right post: Drill a 7/8" hole in the center 1" from top of post just deep enough to insert the rollerblade bearing. Finish through post with 5/16" hole.
- Left post: 1/8" hole centered 1" from top of post for 1/8" tubing.
  - On front edge of the left post, drill 1/4" hole 3/4" deep 3" down from top of post for the threaded insert.
- Drill 7/64" holes in center on bottom of both posts for wood screws.
- Base: In center top of base drill hole for post.
  - 1 1/8" from each end in the center of the base, drill holes for screws that will hold the posts in place. (#8 X 1 1/2" wood screws). Countersink on bottom for screw heads.
  - Drill small pilot hole for screw hook/ wire guide in top of base 1" to the right of the front right corner of left post and about 1/4" toward front of base.
- File or grind a flat side on the 5/16" bolt to seat the thumb screws.
  - Cut bolt to length 2 1/2" from the top of the threads. Smooth edges of cut.
- Drill pilot holes for the feet 3/4" in from each corner on bottom of base.
- Mark and drill pilot holes for lamp crossbar in bottom of tray using the lamp bracket for guide. Be careful to not drill all the way through the tray.
- Sand and glue together all wood parts except the tray.
  - Check before gluing that all holes face in the correct direction!
  - Screw posts to the base with #8 wood screws.
  - Glue in 1 1/2" triangles centered on inside bottom of posts for support.
- Paint or stain the wood parts.
- Screw the threaded insert into the left post. A little wax makes it screw in easier.
- Thread the top of the copper tubing and tighten into the lamp cross bar.
  - It's probably a good idea to put a drop of epoxy on the threads to keep the cross bar from turning when finished
  - File off any excess threads on top of the tubing.
- Thread nut onto the 5/16" bolt to top of thread. Insert the 5/16" bolt into the base through the washer. Approximately align the flattened side slightly to the left or right depending on where you want to position the tightening knob. (about 30° left or right depending on preference)  
Hand tighten the nut on the bottom of the bolt.

- Slide the shaft collar onto the copper tubing. Position the screw hole over the flattened side of the post/bolt. Mark the position of the collar and screw hole on copper tube.
- Drill 1/4" hole in tubing for the lock screw. Smooth edges of the hole.
- Screw the locking knob into the collar.
- Epoxy the collar to the copper tubing centering the lock screw in the hole and making sure to not get epoxy near the locking knob hole.
- Screw the lamp crossbar to the tray. You should be able to position the screws in the center of the slide holes for positioning later.
- Slide the tubing over the post and make sure that the lamp crossbar is parallel to the base. If not, rotate the post/bolt to correct position. Tighten the nut on bottom of post.
- Cut 8" of 1" aluminum channel. Same length as the tray. Round and smooth corners of the channel. Paint if desired. Glue non-skid shelf covering to bottom of channel.
- Cut the hobby knife handle 2" above the collet. Thread the cut end using 5/16" X 18TPI die.
- Slide the rollerblade bearing onto the knife handle. Insert the knife handle into a vise between two pieces of wood. One piece of wood should have a hole for the knife handle to press into. Carefully press the bearing onto the knurled part of the knife handle. Leave about 1/2" of the collet end sticking out of the bearing.
- Put a small amount of epoxy on the outside of the bearing and insert into the right post with collet end toward center. Be careful to not get epoxy on the bearing. When epoxy has dried, screw on the 5/16" spinning knob.
- Open the end of the #2 eyebolt enough to form a hook. Tighten the hook into the collet.
- Cut 1" of 1/8" tubing. Ream the inside of the tubing with a 3/32" drill bit. Press the tubing into the 1/8" hole on the left post. Leave just enough tubing sticking out on the left side to slide a small washer over tubing. Use a drop of super glue to hold the washer and tubing in place.
- Put the lock nut on the #2 x 56 TPI rod and slide the compression spring up to the nut. Insert the rod through the 1/8" tubing. Compress the spring just slightly and cut the rod long enough to form a hook on the inside of the rod. Bend the rod down slightly at the end of the tubing and cut and form a hook. Smooth the end.
- Position the #10 nylon spacer over the threaded insert on the left post. Epoxy the spacer to the post. Screw in the clamping knob. Be careful not to get epoxy on the threads.
- Screw the stationary hook into the base near the left post with opening toward front. A bit of epoxy on the threads won't hurt.