

BRAIDING A ONE-LOOP MOTOR

by George White

I've seen a few articles written about how to braid a multi-loop motor, but none on the "fine" art of braiding a single loop. For what it's worth, here's how I do it.

1. Measure out rubber to whatever length you want your motor to be, adding about 4 inches to each strand for knot tying purposes.

2. Find the center of the rubber and double it over. If you intend to use an "O" ring for a crochet hook, be sure to place it at this midpoint at this step. If you are going to use a conventional crochet hook, create a small loop about 1" in diameter at the midpoint and in either case tie that with a small dental rubber band as shown in photo #1.

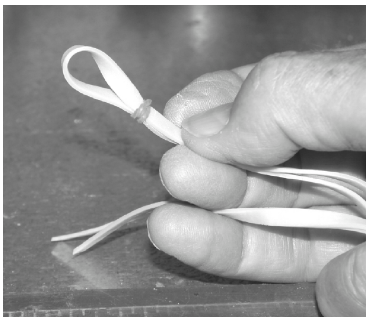


Photo #1

3. Hook the loop or O ring around a nail, peg or whatever you have handy. Then grip each of the two tag ends of the motor with a binder clip such as may be found in any office supply store. Find another nail, peg or other suitable device which is a distance from the end containing the loop or O ring equal to a few inches short of the original length of the motor before braiding. Secure one of the clips to that peg.

4. Attach one of the legs of the binder clip holding the other strand to a winder. The cheap, indoor plastic winders shown in photo #2 are very useful for doing this. Notice in the photo that the other strand in the background to the left is just hanging over a peg, with a clip attached to it.



Photo #2

5. Turn the winder in the same direction you would use if you were winding the motor to fly the model. There's an old wives tale which says that a good rule for determining how

many turns to put into a braided motor should equal 4 turns per each inch of the unbraided motor length. Some folks use less, some more, depending upon how short you want the finished motor to be. You do lose a few turns when braiding a motor — the more you braid the more you lose.

6. When you've twisted the desired number of turns into the first strand, unhook that binder clip from the winder and secure it to the peg you had used to hold the clip attached to the other strand. Repeat the same process with the other strand. When you've finished you've got two strands twisted as shown in photo #3.

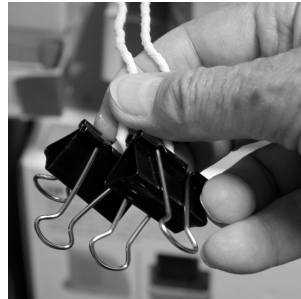


Photo #3

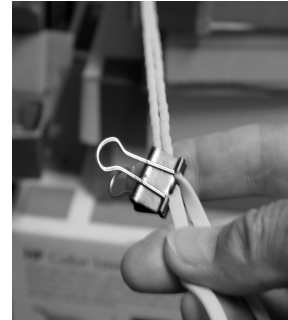


Photo #4

7. Grab the two twisted strands, using the binder clips to keep them from unwinding. Place a third binder clip about 3" into the motor length from the first two binder clips. While holding that binder clip, remove the two clips you used to wind the strands and you have something which looks like photo #4.

8. While that clip holds the strands together and prevents them from becoming unwound, tie a square knot in the two tag ends which have become unwound, and pull it very tight. Then, with the remaining tag ends, tie an overhand knot. Pull the two tag ends from the overhand knot tightly until that knot slides down onto the square knot. That knot combination will not come untied — provided you didn't lubricate the motor beforehand. The finished product is shown in photo #5. Trim the tag ends, run your fingers up and down the twisted mess and you've got a nice braided motor.



Photo #5