

## Shadywood Quilts

### Fabric Measurement Wheel



### Parts List:

Rolotape Model RT204 Measuring Wheel

9" x 1.5 x 3.5 Horizontal 2x4 4.5" x 1.5 x 3.5 Upright 2x4 2.5" 5/8" dia dowel 2.5" Box hinge 4" x 3/8"-16 Hanger bolt 3/8"-16 Wingnut

2" x 1/4" Partial-thread Lag Screw

3/8" Fender washer

#### **Assembly Instructions**

- 1. Remove the attachment screw that secures the handle to the Rolotape and remove the handle.
- 2. Cut the 5/8" dowel 2.5" long.
- 3. Use a grinding wheel to slightly reduce the diameter of one end of the dowel, to fit the hole for the Rolotape handle.
- 4. Cut a common 2x4 board to make two lengths, one 9 inches and the other 4.5 inches. The 9" length will become the horizontal board holding the Rolotape, and the 4.5" length will be the upright.
- 5. When cutting the 4.5" length, on one end only, set your blade angle to create a 2 degree bevel, as shown in the drawings.
- 6. Use a band saw or saber saw to round the end of the 9" board, using a compass to draw a half-circle with a 1.75" radius.
- 7. Measure 3" from the rounded end of the 9" board and drill a 5/8" hole, 3/4" deep in the center of the board. A forstner bit is helpful, since you want a flat-bottomed hole, to receive the dowel.
- 8. Layout the hinge as shown on the plans. If desired, use a router to inset the hinge.
- 9. Layout and drill pilot holes for the 3/8" hanger bolt and the 1/4" lag bolt, in the un-beveled end of the 4-1/5" board, as shown on the plan.
- 10. Install the 2x1/4" lag screw, leaving the unthreaded part of the shaft exposed.
- 11. Use a Dremil tool or hacksaw to cut off the hex head of the lag screw, and then use a grinder to smooth and de-burr the end.
- 12. Install the 4x3/8-16" hanger bolt, leaving enough threads showing so that you can install the wingnut when the device is installed on your cutting table (2" if your cutting table is 1.5" thick).
- 13. Assemble the hinge to the boards, as shown in the drawings.
- 14. Insert the 5/8" dowel into the Rolotape handle hole, and use the handle's screw to secure it.



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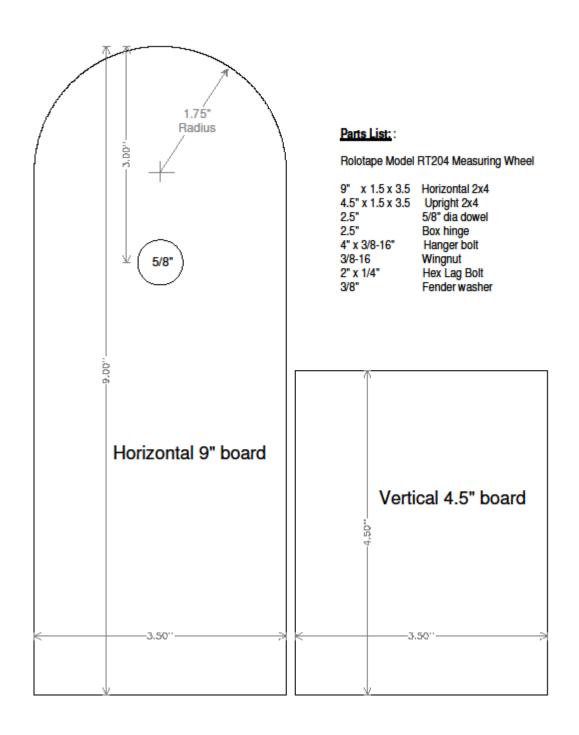
- 15. Insert the other end of the 5/8" dowel into the hole in the horizontal 9" board, to attach the Rolotape, but do not glue it in place yet.
- 16. Drill a 3/8" hole in your cutting table to receive the 3/8" hanger bolt, positioning it so that the upright will align with the end and side of the table. Drill the 1/4" hole just deep enough to receive the cut-off 1/4" lag screw end.
- 17. Glue the 3/8" washer to the bottom of the cutting table, taking care to align it with the 3/8" hole.
- 18. Use the wing nut to install the device on your cutting table. Make sure that the 5/8" Rolotape mounting hole in the horizontal 9" board is deep enough to give you some adjustment room to ensure that both wheels touch the surface of your cutting table equally.
- 19. Disassemble the device and use your router to put a 1/4" round-over on all the edges except the ends of the 4.5" upright. Sand and paint as desired.
- 20. Re-assemble and re-install the device on your cutting table. Adjust the height of the dowel insertion so that both Rolotape wheels make equal contact with the cutting table. Mark it and then remove the dowel; then glue it back in permanently, using the mark as your guide. Be careful to square the Rolotape with the table.

### **Using the Measuring Tool**

- 1. Use a magic marker to highlight a line on your cutting mat, about 6" from the edge.
- 2. Place a TV tray at the end of your cutting table and then lay the bolt of fabric to be cut on the TV tray, with the fabric rolling off from under the bolt on the side nearest the table.
- 3. Open the fabric measuring device and line up the cut edge of the fabric on the line you drew on your cutting mat. Close the device.
- 4. Press the button on the Rolotape to reset the counter.
- 5. The Rolotape measures in feet and inches, so convert your desired measurement accordingly. For instance, if you wish to measure 70 inches, 70 divided by 12 is 5 feet, 10 inches. To do this on a calculator, after dividing by 12, subtract the whole number (5 feet, in this case) from the fraction (5.833...), and then multiply that result by 12, to get the inches.
- 6. Pull the fabric though the device until the calculated feet and inches appears on the Rolotape.
- 7. Cut off the fabric at the line you drew on the cutting mat.

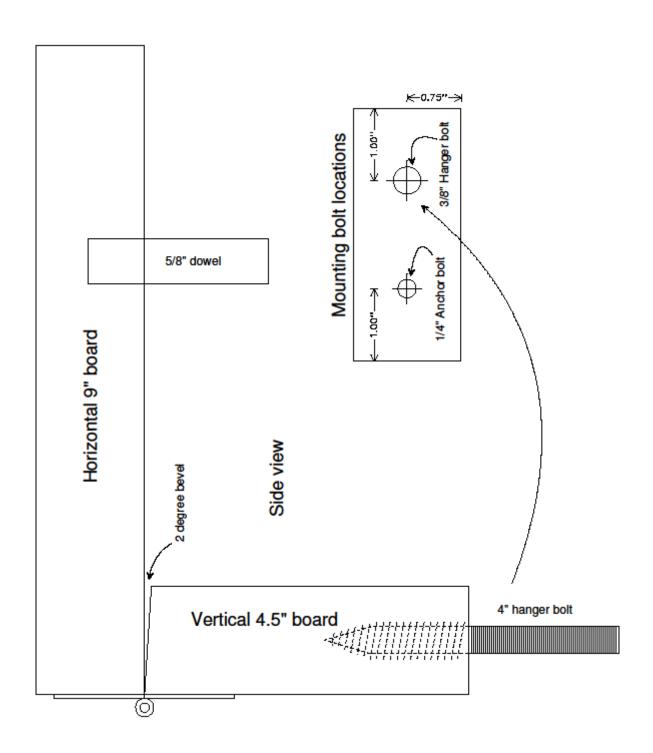


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