

12/28/12

Open Segment Assembly Jig building instructions

Material

Spindle open segment spindle with nut and washer
Arm, stop & pointer 3/4" alum angle 15"
T track 10 1/2" T track with bolt and wing nut or knob
Small clamp for stop & small spring clamp for wheel
Index wheel layout downloaded from <http://www.smithart.us/>

Wheel	1	1/8" x 7 3/4" disk	hard board or plastic
base	1	1 1/2" x 6" x 10"	lumber
spindle base	1	3/8" x 2" x 2"	plywood
wheel clamp platform	1	1/8" x 2" x 2"	plywood, hard board or plastic
platform base	1	3/4" x 1 1/2" x 1 1/2"	lumber
column	1	1 1/2" x 2" x 12"	lumber
arm support	1	3/8 x 3" x 3 1/2"	plywood
guides	2	3/8" x 3/4" x 3"	plywood

- 1 Mill and assemble base as shown. Do not drill for spindle or add the pointer at this time
- 2 Mill column with dado to fit T track and tenon to fit notch in base, assemble to base.
- 3 Assemble arm unit making sure that guide pieces fit along sides of column and hole lines up with T track, arm support is notched for the alum angle. With arm on column
- 4 Mark the hole location in the base so that it lines up with the end of the arm. Remove arm and drill hole.
- 5 After downloading the index wheel layout you want to use cut out the wheel from hardboard or plastic and attach the layout with spray adhesive then add several coats of lacquer or lamination film
- 6 Drill a 1" or 1 3/4" hole for your spindle in the center of the wheel and assemble the spindle.
- 7 Place the wheel assembly in the hole of the base and attach the pointer so that it lines up with the lines on the layout. You may want to add a spacer under the pointer to bring it up to the level of the wheel.
- 8 Start your open segment project.

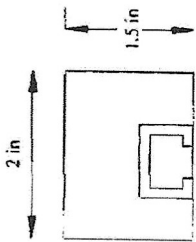
If you plan to do large projects the index wheels can be photo enlarged and the jig scaled up as required.

If you have any questions you can call me at 714 772 9006

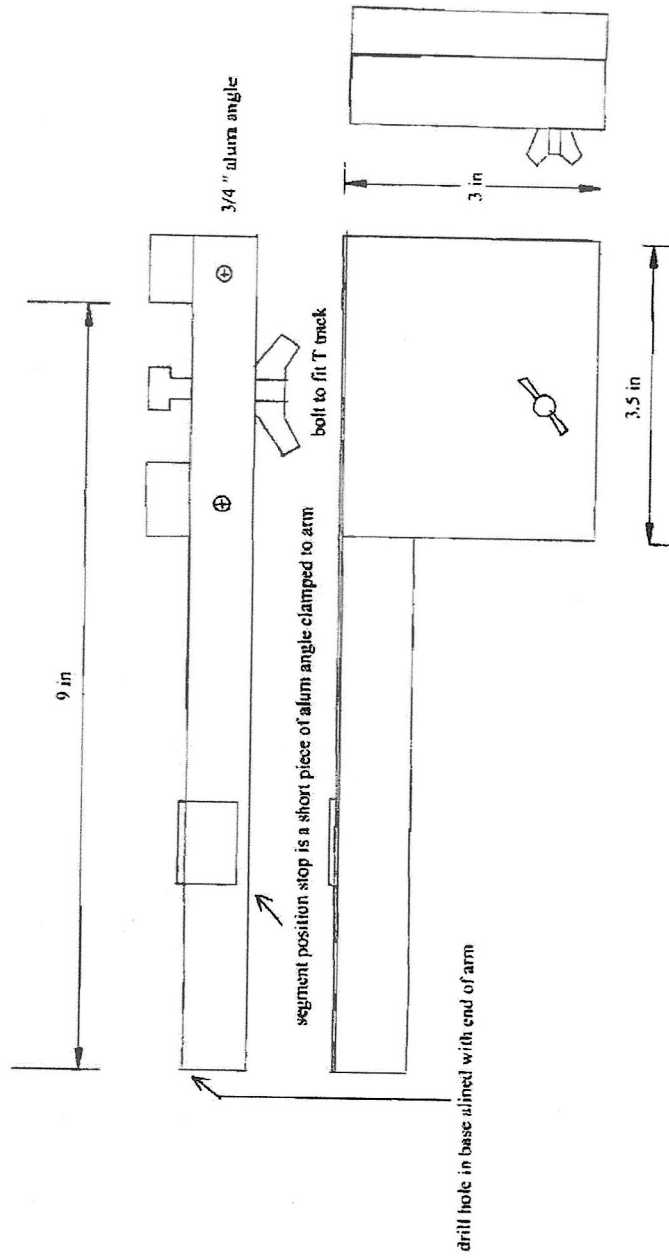
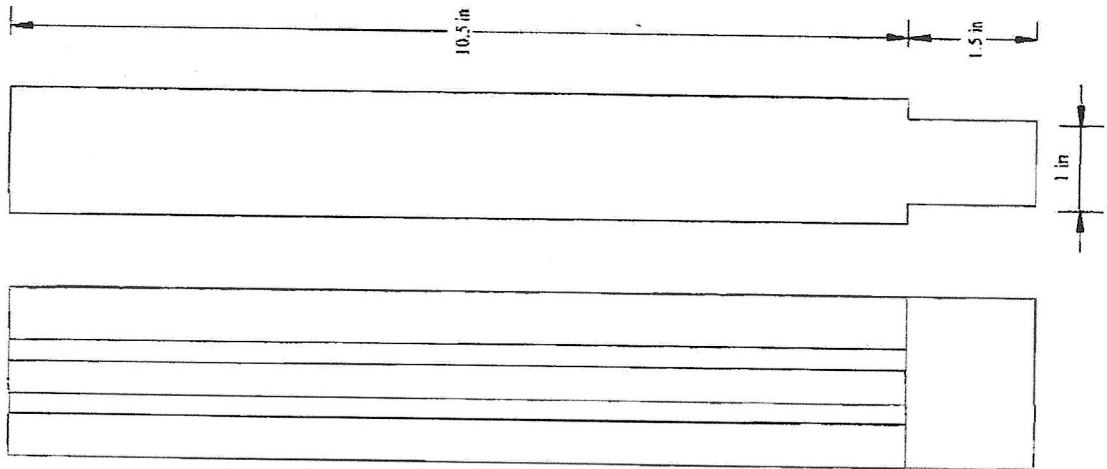
Thank You Jim Driskell

Note: A modification has been developed that increases accuracy and ease of use.

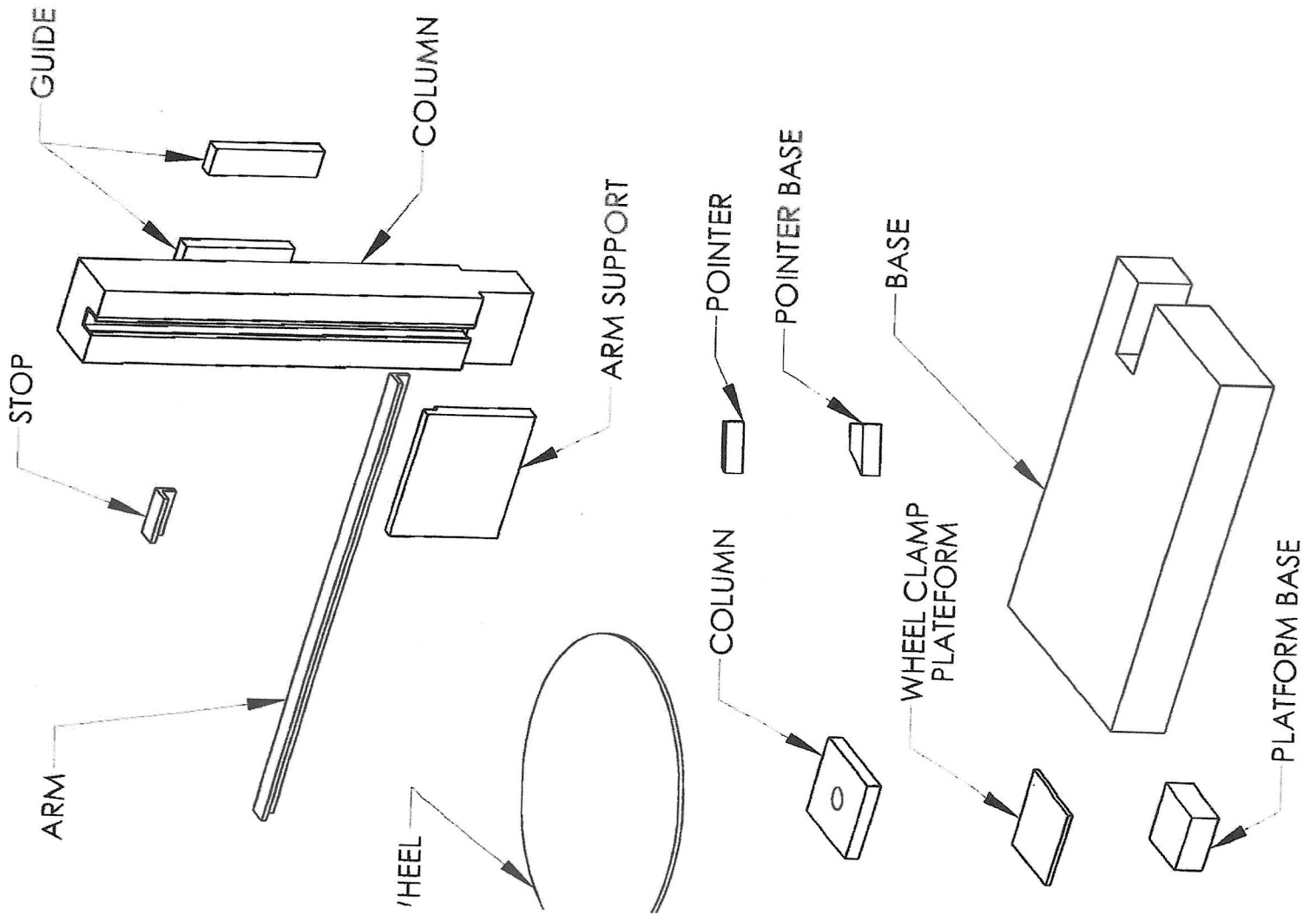
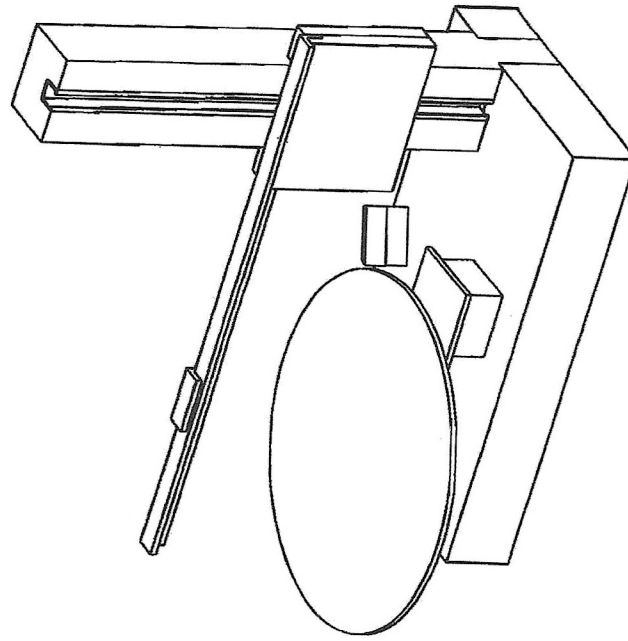
It involves cutting notches at each index line on the index wheel with the band saw and adding a pivoting stop to the index pointer. See the last 2 pictures. The stop is cut from the same aluminum angle used for the arm and pointer the leading edge of the stop is tapered to go into the notches on the index wheel



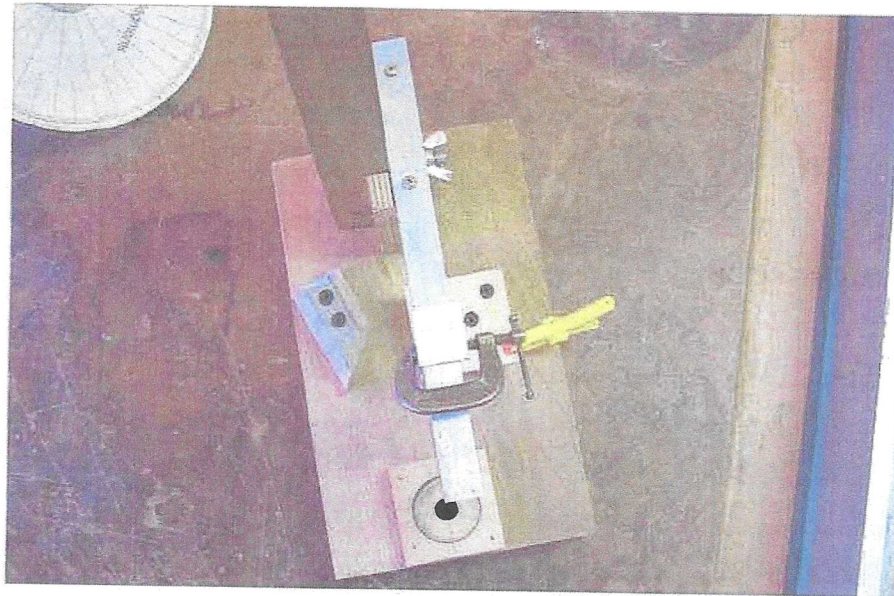
dado for T track

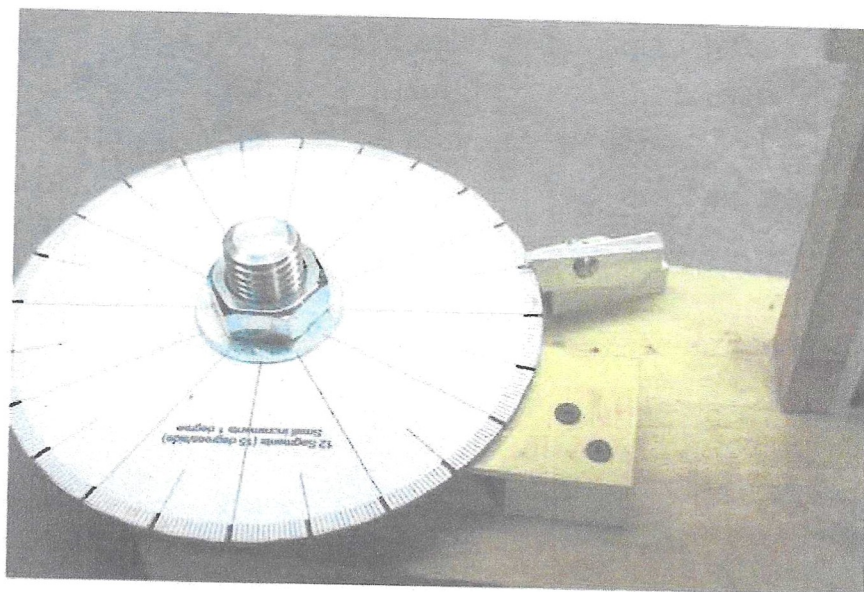
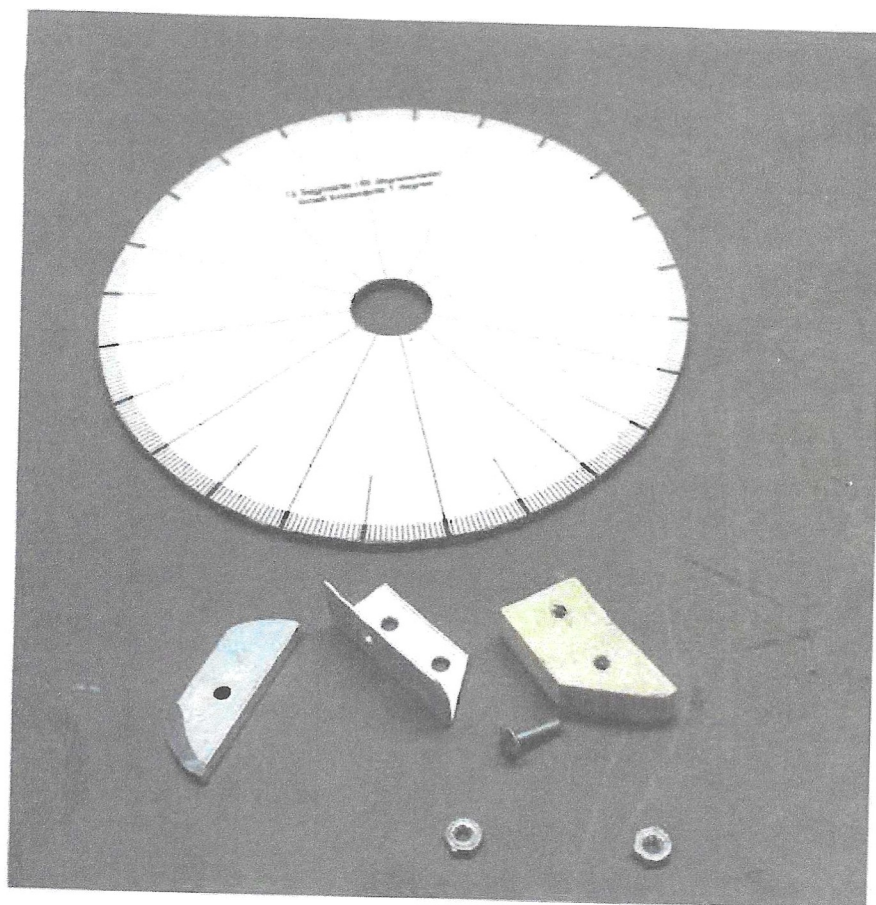


open segment assembly jig
column and arm









modifications for better accuracy and ease of use