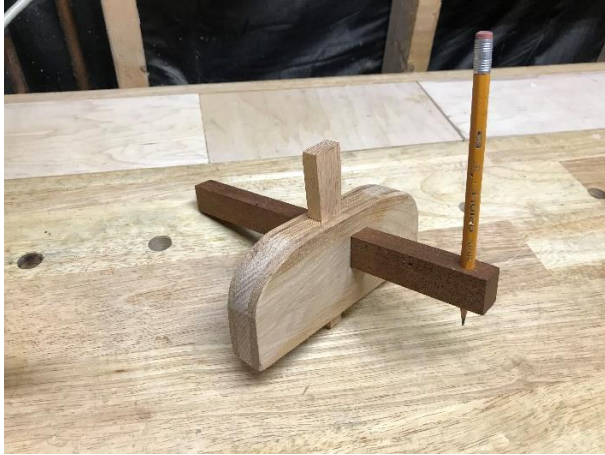


Japanese Pencil Marking Gauge

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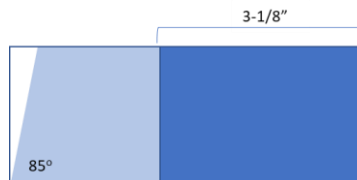


Materials

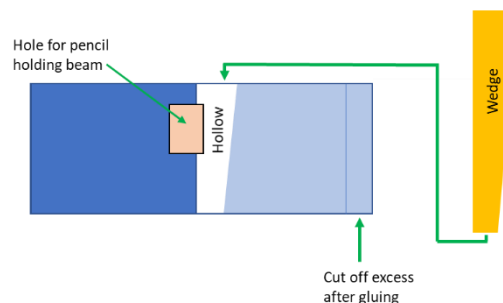
Sizes shown are approximate. Adjust sizes as you like.

- Face board (2) $6 \frac{1}{4}'' \times 2 \frac{1}{2}''$, $\frac{1}{4}'' - \frac{3}{8}''$ thick
- Core (1) $6 \frac{1}{4}'' \times 2 \frac{1}{2}''$, $\frac{3}{8}'' - \frac{7}{16}''$ thick
- Beam (1) $\frac{5}{8}'' \times \frac{7}{8}''$, $7 \frac{1}{2}''$ long
- Wedge (1) $4 \frac{3}{4}'' \times \frac{7}{8}''$, same thickness as core

1. Sand glue surfaces of the face board and core board.
2. Cut one side of the core board at 85° angle with miter saw, then cut into two pieces as shown in the figure below.



3. Mark 85° line on the wedge. Place firmly on a scrap board with double sided tape. Cut with band saw. Save the scrap piece for use in step 5. Sand.
4. To form the headstock (the part held in your hand), sandwich the two core boards between the face boards using the wedge as a spacer. Glue as shown in the figure below and clamp. After clamping remove the wedge. Leave overnight to let the glue dry.



5. Mark beam position in the headstock by tracing its profile. Position the hole offset towards the top of the headstock (towards the wide end of the hollow). When putting the marking gauge to use, this will permit greater contact with the piece being marked. Also, position the hole offset about 1mm (1/32") towards the straight side of the wedge. This will cause the wedge to make contact with the beam and hold it in place. Drill a hole with Fostner bit (optional). Choose the bit size close to shorter side of the beam cross section.
6. Chisel out the hole for beam (pink portion shown in step 4), supporting the hollow edge with scrap wood (from step 3) to prevent tearout. It is easier to adjust beam size to fit the hole rather than making hole to the exact size.
7. Use band saw to shape the core board, cut off excess that is sticking out and round the top.
8. Drill a pencil holding hole on the beam.

Some additional tips:

- Headstock can be bigger or smaller. Make the size comfortable to your hand.
- Paste a small piece of sand paper on headstock with double sided tape.
- Add adhesive scale on the beam.
- Make pencil hole bigger than the diameter of pencil, drill a hole at the end and use screw to tighten the pencil.