

# Don't Measure! Version 1.1

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By R. G. Sparber

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I am in the middle of a rather large project that requires me to drill a hole approximately every 8 inches along a square aluminum tube. The hole must be  $\frac{1}{4}$  inch from the corner. If I only needed to drill one or two holes, I would use my tape measure to locate the holes. But this project has me drilling over 100 holes. Time to make two custom tools.



The first tool is a length of coat hanger. The ends are bent such that the corners are 8 inches apart. I mark the location of my first hole and then use this tool to mark the next hole. Moving down the tube, I can mark each locations in less 2 seconds. These holes were let me pass a length of stainless steel wire through in order to secure 4 strands of LED rope lights. The distance between holes is not that critical and it doesn't matter that there will be accumulated error.



Then out comes my second tool. It isn't much fancier than my first tool yet works just as well.

I drilled two holes in this scrap piece of steel. They are the same distance from the top face and in the same distance from the side edges. This is my drill guide.

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I line up the right edge of the drill guide with my tick mark. Then with the guide contacting both the top and side face, I start to drill the hole.

Once it gets started, I remove the guide so I can use both hands to support the drill.

When this hole is done, I can either continue to drill and get through the other side or flip the guide over, align the other edge of the guide, and drill from the opposite side.



The finished hole is located just below the top face's inside surface.

The work goes fast yet the results are consistent.

The next time you are faced with a task that must be done more than a few times, you might want to consider making one or more custom tools.

### **Acknowledgement**

Thanks to Jerry Feldman for pointing out that my 8 inch tool will have accumulated error and there are plenty of applications where this will be a problem.

I welcome your comments and questions.

If you wish to be contacted each time I publish an article, email me with just "Article Alias" in the subject line.

Rick Sparber

[Rgsparber.ha@gmail.com](mailto:Rgsparber.ha@gmail.com)

[Rick.Sparber.org](http://Rick.Sparber.org)

