

Use A laser level for panel lines

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Written by Ron Peterka

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Using a laser level to layout panel lines

Ron Peterka

There are 50 ways to leave a lover, and at least that many ways to layout panel lines on your model. I have tried using straight edges, string, flexible rulers, tape, cussing, and prayers.

On a flat-sided fuselage or a sheeted wing it's not too big a deal. The trouble comes with a rounded fuselage or across the chord of a tapered wing with its curved surface tapered in two directions. If you lay a flat ruler on a conical surface it will make a very nice curved line right where you wanted a nice straight line.

Finally an easy, I like easy, way to lay out panel lines or even straight line trim patterns came around. It came in the form of a 4-in-1 Laser Level from our good friends at Sears. It was priced at about \$30 and I believe there are other brands at about the same price. It comes in a nice semi-hard case with accessories and even a pair of amber tinted plastic glasses to make the red laser line stand out. Powered by a pair of AA batteries the 2.5 milliWatt laser projects up to 30 feet. The level can be hand held, blocked up, or mounted on a photographic tripod. The single straight -line beam can be projected from a 90 degree vertical line to a 0 degree horizontal line and any angle between the two. Included adapters offer precision adjustments for leveling using the bi-directional bubble levels on the top of the tool.

The accompanying photo shows a set-up for marking a vertical panel line around a curved fuselage. You would have to turn the fuselage 180 degrees to do the matching marks on the opposite side. The level must be at a 90 degree angle relative to the fuselage side and it is easiest to have the fuselage perfectly flat with the reference center line. In the photo you can see the angle gauge mounted at the bottom line of the wing chord which in this aircraft is at zero degrees relative to the center (thrust) line. The red laser line is projected at 90 degrees on the fuselage side and accented with blue trim tape in the photo. With the laser lens at 90 degrees to the centerline the beam should go from the upper centerline to the bottom centerline of a round, or nearly round, fuselage.

By moving the laser line along the side of the fuselage you can then mark the panel line using a very soft pencil, or a felt tip pen with erasable ink. A few marks along the line can then be followed by the masking tape or narrow black panel line tape. Actually making the panel lines is a whole different thing depending on whether you want to depict overlapping aluminum panels, butt joined panels, or are laying out a paint edge. The main thing here is to make a straight mark around the compound or conical surface, or along the side of a curved surface. With the wings mounted you could lay out a perfect trim line along both wing leading edges at one time. You can lay a straight baseline for 'N' numbers or other decorations too. I used the laser level to establish the fuselage side trim on the model in the photo. It was almost fun it was so easy.

You need to be careful NOT to look directly at the laser beam. It can cause permanent eye damage. This could change or eliminate flying RC again. Be careful.

