

# Club Field Safety Benches

## How To Do It

By Joe Di Prima and Charlie Meyer Photos by Joe Di Prima. Drawings by John DeSena.

As seen in the August 2002 issue of *Model Aviation*.

The Meroke RC Club (an AMA Gold Leader Club), with 125 members, flies at Cedar Creek Aerodrome, which is a Nassau County park in Wantagh NY on Long Island. More than 500 permits to fly are issued each year. The Aerodrome is a busy flying site that has been in use since the mid-1970s.

Because of budget restraints, Nassau County has not been able to provide many amenities. We had a few old, broken-down picnic tables to rest our airplanes on, so last year club member Charlie Meyer and his brother Bob Meyer decided to form the volunteer group "Friends of Cedar Creek Aerodrome" to make some improvements at the field. The team consists of club members and nonmembers. One of their major concerns is safety at the field.



*Logical thinking by the members of the Meroke RC Club resulted in the production of this safety-bench design. It looks as though they thought of everything!*

The team has been working with Nassau County Legislator David Denenberg to get materials and make some changes. We needed benches to hold our airplanes rather than use the few cumbersome picnic tables provided by the county.



*The bench-building crew consisted of, from left to right, Tim Murphy, Peter Heinz, Bob Meyer, Hank Rheil, and Charlie Meyer. Ya done good, guys*

After collecting donations from the fliers, Charlie designed and built a prototype bench. It was given immediate approval by all who used it. We decided to build five more benches using leftover wood from a member who had built a deck. But since we have two runways, six benches were not enough; we needed more.



*Here are several benches in use at the Meroke club's Long Island field. Robert Meyer prepares his RC sport model for a flight.*

Being the busy guy that he is, Charlie asked me to coordinate the next building project. I asked the Meroke RC Club's board of directors to allocate \$150 to build five more benches. After getting the money, I was ready to purchase the lumber.

Fred Abeles, our club treasurer, suggested that I try to get a discount at the local lumber supplier. I wrote to the company, and instead of a discount we got a donation of enough lumber to build the five benches. I immediately wrote to four other suppliers in the area; we got lucky and received more lumber donations—enough to build five more benches.

The new benches at the field are always grabbed first. The guys love them. They are a convenient and safe design, are easy to build, and are inexpensive enough, even if you have to pay for all the supplies.



*Charlie Meyer demonstrates the use of the bench while adjusting the needle valve from behind the propeller. There's no need to lean over to pick up the model!*

This is a great club project and can involve several members, which fosters teamwork and camaraderie.

## **Design:**

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This bench's design promotes safety. With the strong 2 x 4-inch vertical wing restraints, the airplane cannot move forward—even with the engine at full throttle. However, we do not recommend running full throttle at any time without holding the airplane by hand.

The bench provides a place to put the transmitter, starter, and glow-starter battery. It also allows the pilot to stand behind the engine, close to the airplane, when making adjustments to the running engine. The pilot does not have to lean over the model to pick it up and carry it to the runway. You can leave that heavy field box at home and take a small, portable one to hang on one of the extensions. There is a good, safe feeling when using these strong, sturdy benches.

The materials for each bench cost approximately \$38 in the Long Island area. You can attempt to get a discount or a donation from your local building suppliers. Money can be raised by collecting donations from club members, holding a raffle, or putting a donation can at the field.

## **Materials for Each Bench:**

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All lumber is in eight-foot lengths and is CCA (chromated copper arsenate) pressure-treated.

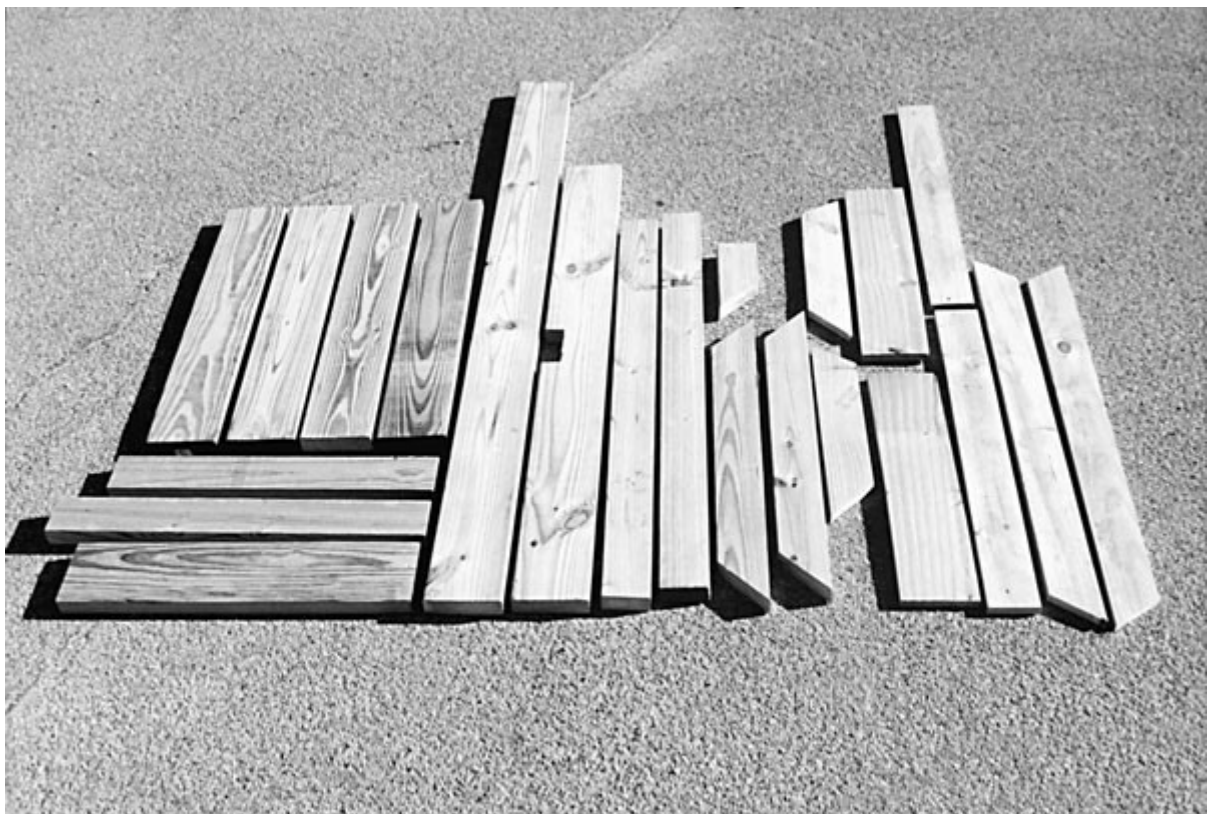
<i>Quantity</i>	<i>Size</i>
3	2 x 6 inches
1.5	2 x 4 inches
1.5	1 x 4 inches
.5	1 x 6 inches

- 1/2 pound #8 deck screws, three inches long
- 1/8 pound #8 deck screws, two inches long
- Scrap carpet
- T-50 staples

Tools needed for construction are a tape measure, a hammer, a wood chisel, a framing square, pencils, a Skil saw, a nine-inch chop saw, an electric drill, a 7/64 drill bit, an electric screwdriver, extension cords, a T-50 staple gun, and a utility knife.

## Assembly:

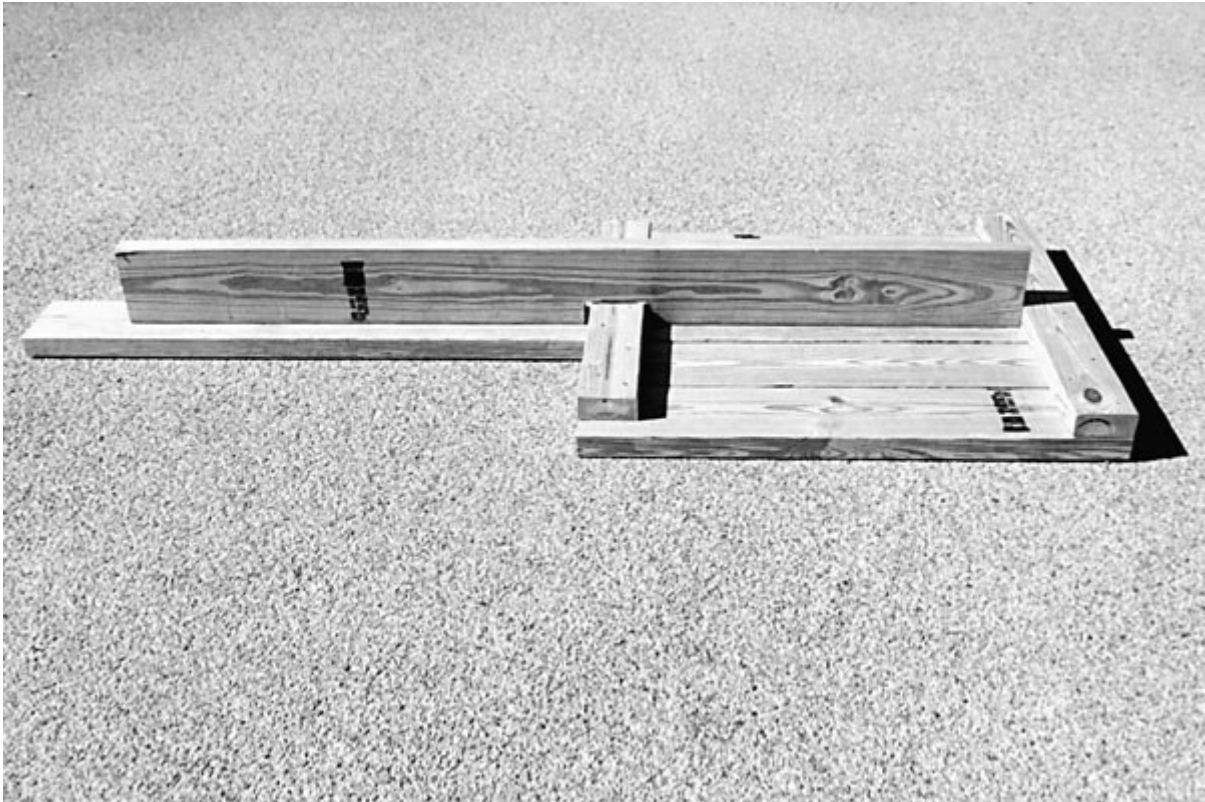
We built five benches at a time and made templates of all the pieces to be used for building more tables in the future. The wood for all five tables was precut.



*The builders found it easier to make several precut kits for the safety benches than to assemble them one at a time.*

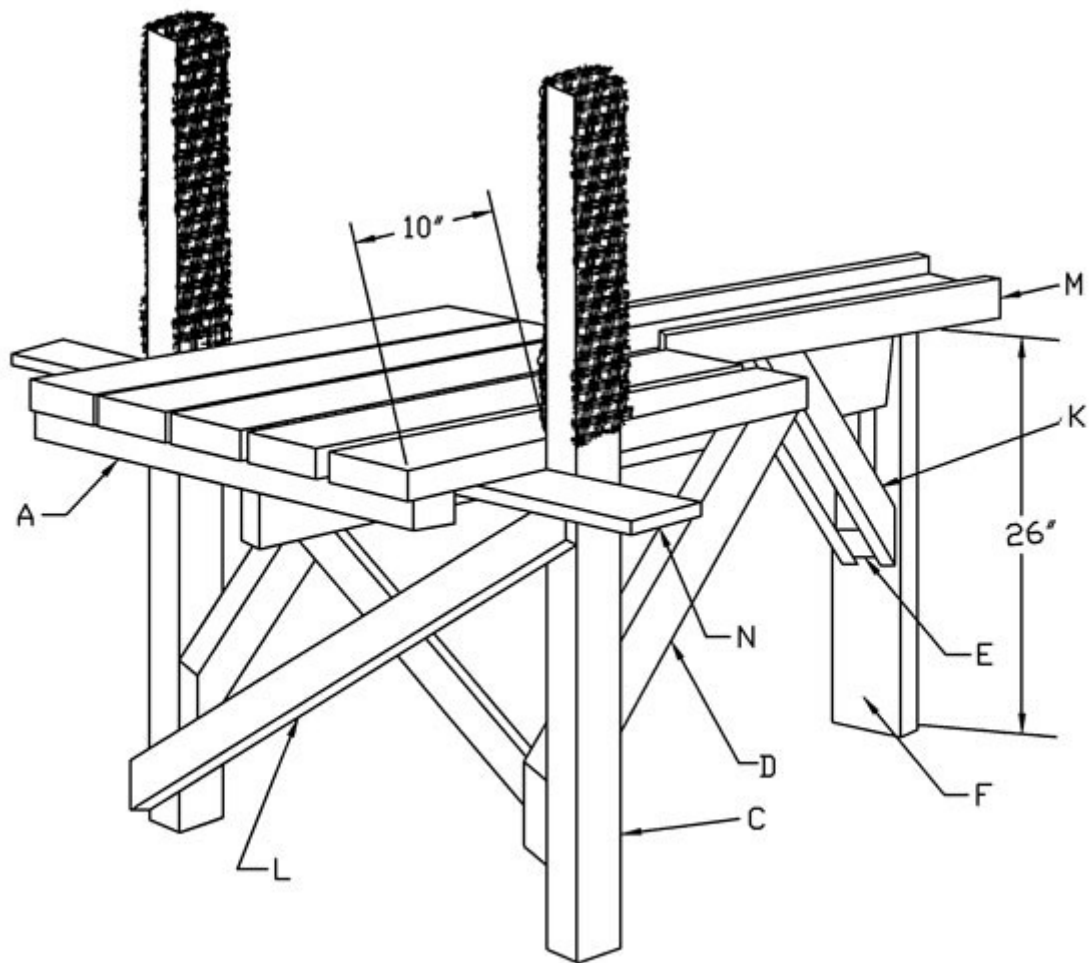
Construct the bench tops first. Pre-drill all screw holes with a 7/64 drill to prevent the wood from splitting. Lay the 2 x 6s over the two 2 x 4 crossbraces. Note that the rear crossbrace is inset the width of a 2 x 4 on each side. After spacing the top pieces evenly, insert one screw in each corner of the top pieces. Square the whole thing with the

framing square, and screw in the other screws on each piece. Use two screws on each end.



*A view of the underside of the bench-top assembly. It's clear that these benches are built to last and remain sturdy.*

After the top is constructed, add the horizontal spine centered under the middle, long 2 x 6 top piece. The spine must be notched where it meets the rear crossbrace. This notch does not have to be precise; it can be cut with a Skil saw then knocked out with a hammer. Make several cuts before knocking it out. You can use a chisel if you prefer. Use six evenly spaced screws to fasten the spine.

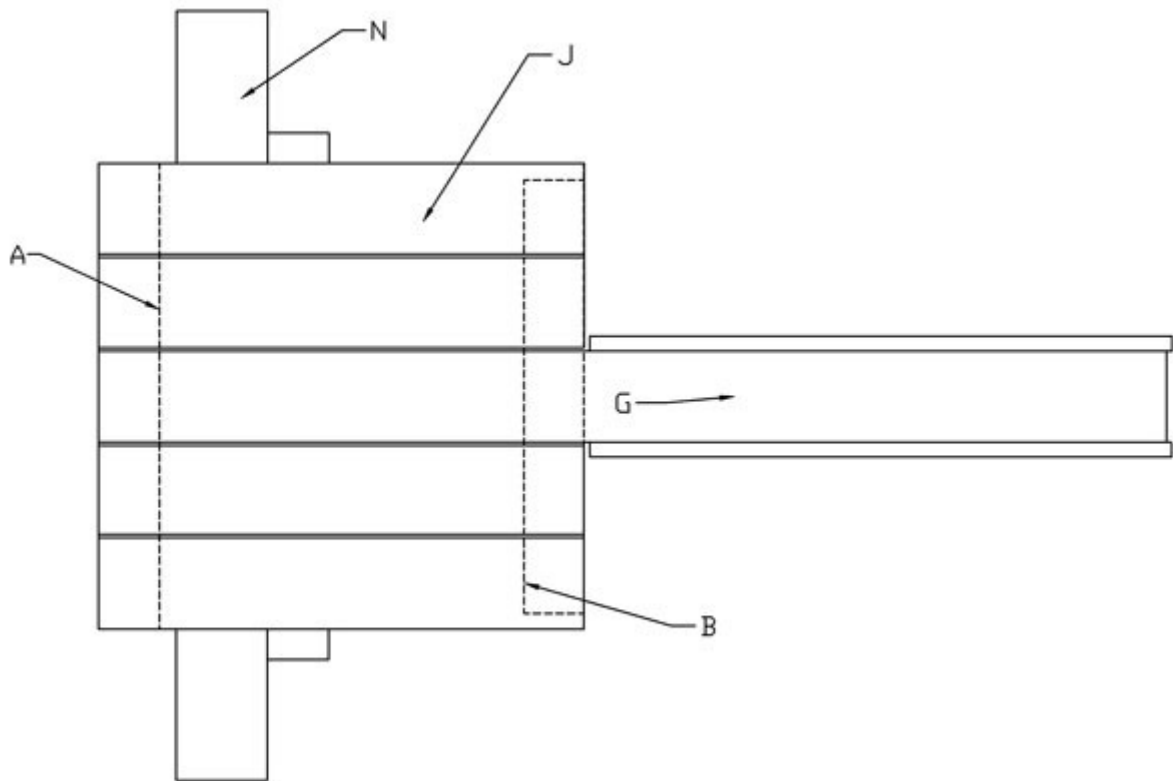


*This drawing shows the assembled bench and provides a key to the location of the various parts. You can modify the bench to suit you or your club's special needs. (Click above image for larger version)*

Add the 2 x 4 front legs. Use two screws on each. Draw guidelines across both legs at 26 inches and 27-1/2 inches. The legs are attached 10 inches back from the front of the top and with the top centered between the guidelines. Make sure the 26-inch length is toward the bottom.

Turn the table upside down, and add the 1 x 6 x 24 field-box supports. These should be butted against the spine and back against the leg. Use at least seven screws on each support. Add the 2 x 4 angled side braces next with the two screws on each end. Make sure to square the legs before screwing in the braces.

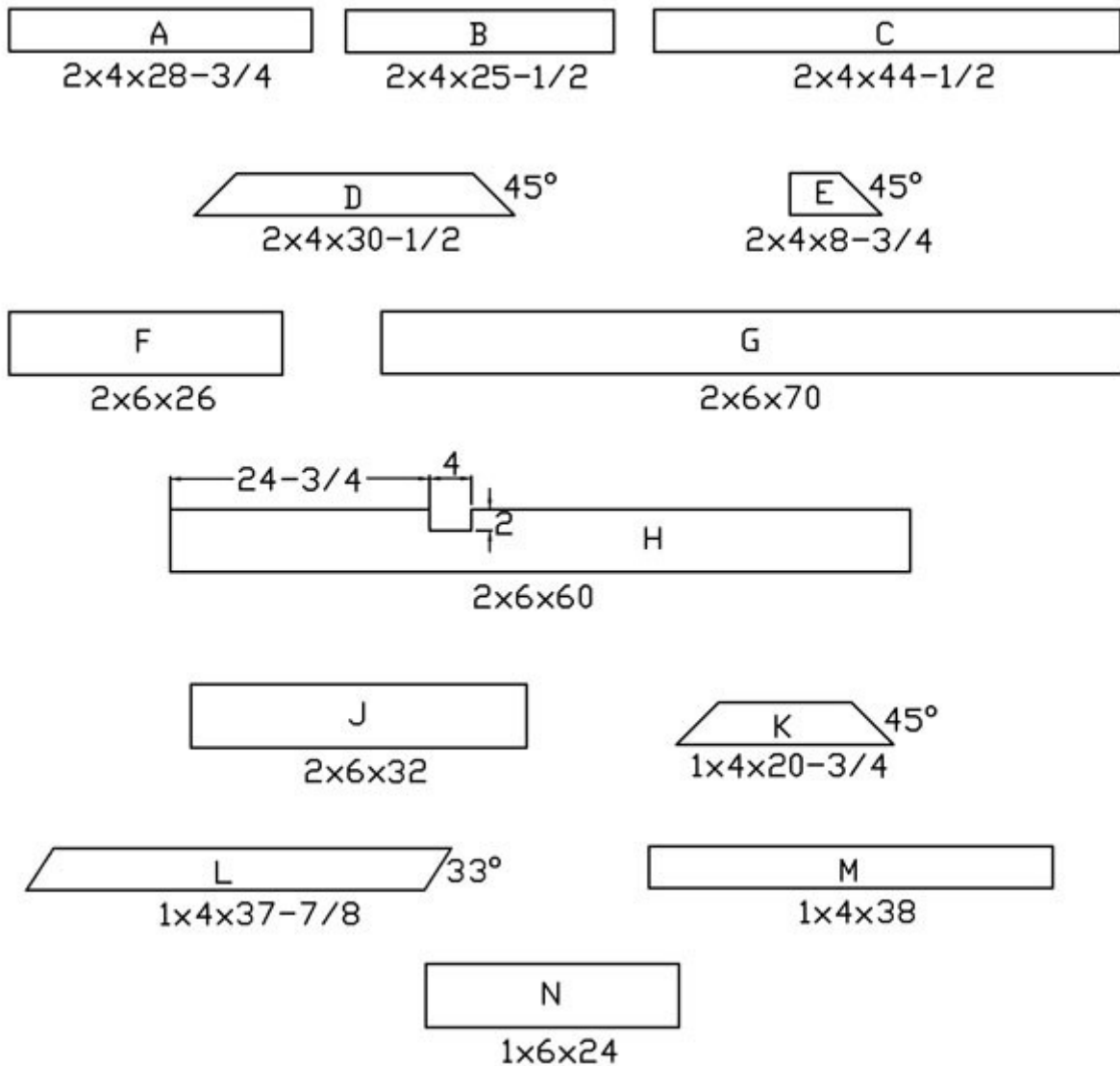




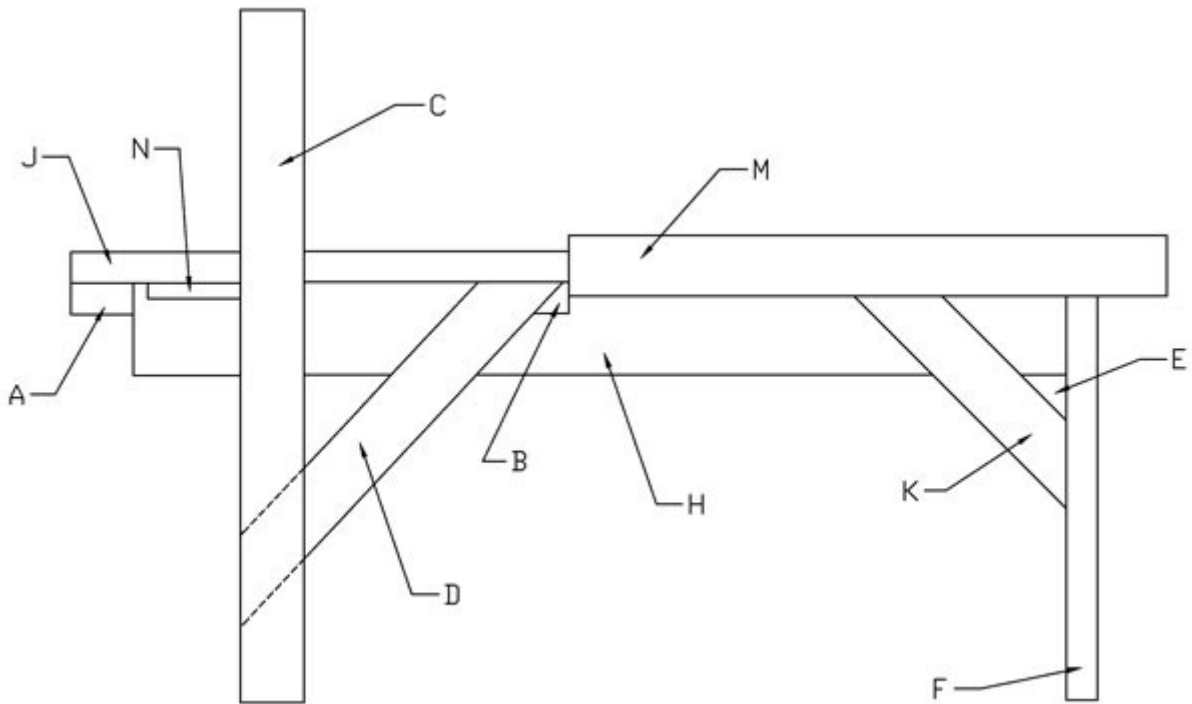
*This is the parts key for the bench-top assembly, which is depicted in this drawing. (Click above image for larger version)*

Add the front 1 x 4 angled braces. Screw in the bottom of the front one first, then square the other leg left to right before screwing in the top screws. Repeat with the other brace.

The rear leg is attached by butting it against the spine end. Use two screws in the spine. Add the short 2 x 4 angled brace in the same manner. Attach the 1 x 4 small angled braces on each side. Turn the table right-side up. Insert three more screws through the middle top piece into the rear leg and two screws on each rear corner of the top into the 2 x 4 angled brace that was previously installed.



*These are the individual parts that are combined to make a safety bench. Notice that all the required dimensions are included. (Click above image for larger version)*  
 Attach the 1 x 4 topside rails on both sides. Use a piece of scrap 1 x 4 as a height guide. Add scrap carpet to the airplane wing restraints using 1/2-inch T-50 staples or 3/4-inch roofing nails. The carpet protects the wing from dings while the airplane is on the bench.



*This is the parts key for the side view of the safety bench. Why not make this a priority club project this year? (Click above image for larger version)*

## Variations:

We built a bench for Giant Scale airplanes by lowering the top height by seven inches and extending the center top piece by six inches. The 2 x 4 leg/restraint lengths are not changed, so the restraint height is increased by seven inches. The rear leg is 19 inches. If a wider top is needed to accommodate wider landing gear, additional top pieces can be added. This Giant Scale bench is well liked.

Wheels can be added to the front legs so that one person can move the table more easily. If wheels are added, the rear leg will have to be extended to make up the difference of the wheel height.

Cup hooks on which to hang a transmitter can be added to the edge of the bench or the box supports.