

Northern Virginia NTRAK "How-To" Article

INSTALLING WOODEN LEGS USING "EASY LEGS"
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BY
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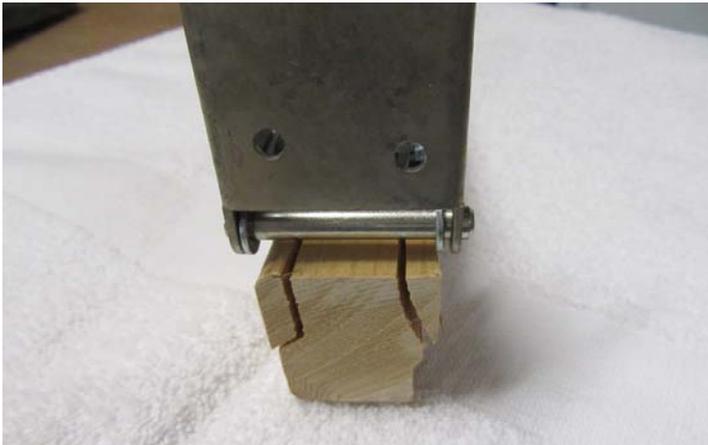
If you are going to have folding wooden legs on your NTRAK module you need some sort of hinge. The Company Store has dealt with some donated modules with wooden legs. Here are some observations that may help. The examples are from modules with "Easy Leg" hinges. The concepts discussed apply to any hinge type.

How to ensure legs are loose and wobbly!

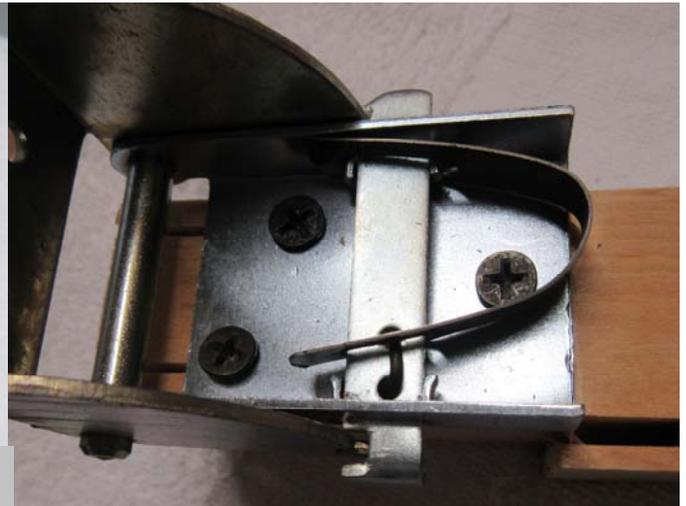
First: Use the cheap wood with lots of knots, inclusions, and grain that is not straight. This will ensure the legs twist and warp into strange shapes as they dry. You cannot buy truly dry wood at Home Depot or Lows.

Second: Don't use the right screws for the hinge that you have selected. Use dry wall screws, they are cheap and fast.

Third: Do not drill pilot holes for the screws. It takes too long and the wood does not always crack.



This picture is from a set of "Easy Legs" from a real module, not props dreamed up for this article.



The dry wall screws used here do not fit the holes tightly and have split the wood.

Most of the 2 inch by 2 inch dimensional (1.5 inch square) pine you see is best suited for staking tomatoes. There may be some good quality out there but it is hard to find. One approach is to use two pieces of good quality 1 inch by 2 inch dimensional lumber and glue the pieces together to make a 1.5 inch square leg.

Using the correct screws will help prevent looseness between the hinge and leg. Hinges are made from sheet metal, so we need a screw designed for sheet metal.

The wood screw on the right is designed to hold two pieces of wood together so it is missing some threads. The dry wall screw on the left has the wrong pitch and head shape. Some hinges have beveled edges to take a flat head sheet metal screw. The Easy Leg hinge is made of material too thin to bevel, so it requires the pan head sheet metal screw.



Dry Wall Screw

Pan Head Sheet Metal Screws

Flat Head Sheet Metal Screws

Wood Screw

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Finally we need to get the right screw size. Should it be a size number 6, 8, or 10. On the left is a No. 6 and on the right a No 10 in the “Easy Leg”. There is a lot of space in the hole around the no 6 screw. In this case a number 10 is the right size.

A Pilot hole also needs to be drilled, very carefully centered in the hinge hole.



Dry wall screw does not fill the hole.



A number 10 sheet metal screw is the correct size.



A poorly designed support for the legs is not attached to the frame.

As a separate issue, the module support for the wooden legs needs to be robust. Shown is a leg support system that is totally supported by the one-quarter inch deck. It should be tied into the sides and ends of the module for increased stability.

Folding wooden legs take up a lot of space under the module, which limits what can be done on the module. For example, tortoise controlled turnouts would not be possible with the arrangement shown.

The two cross braces on this module are too narrow. A three or four inch piece of one-quarter inch plywood would provide more support against sideways wobble.



Module using easy-legs.



Another view of an easy-leg assembly..

A regular hinge can also be used for legs. When this is done a separate method of holding the legs in the stored position and in the down position will be needed.

In some cases a bolt will better than a screw for attaching the legs to the hinges. It depends on the clearance at the back side of the leg for the nut and bolt expansion. .



A regular hinge used for another set of wooden legs.