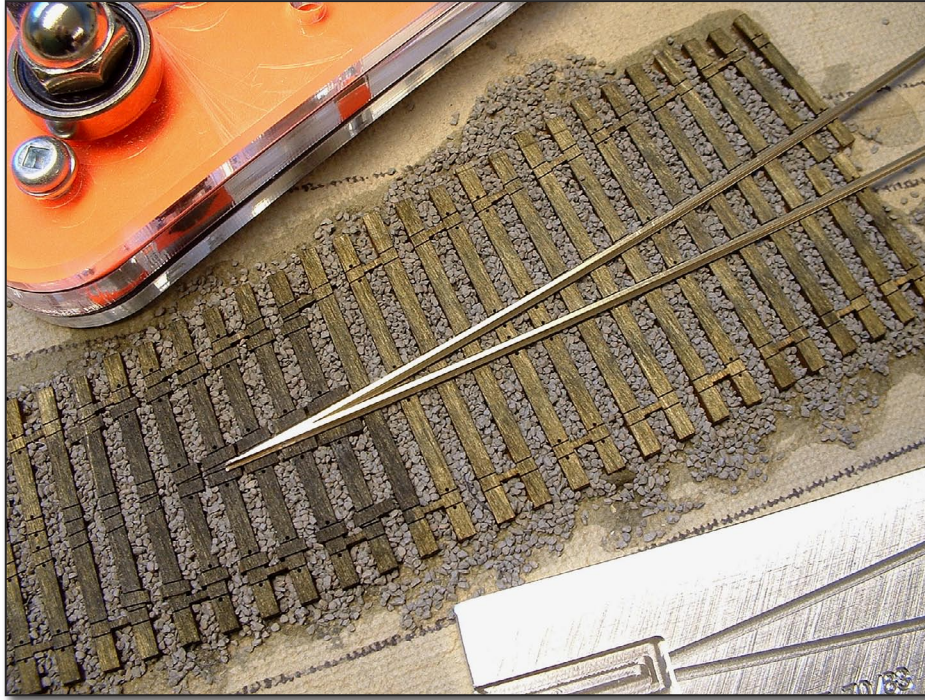


USERS' GUIDE

Using the Frog Helper To Build Curved Turnout Frog Points (UG15)



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Fast Tracks Frog Helper Users' Guide

The Frog Helper soldering jig is used to pre-solder the two halves of a frog point together. The tool is designed to hold the rails at a very precise angle, and includes ample clearance below the area being soldered to ensure that the heat from soldering iron remains focused on the points.

The Frog Helper can be used to solder points for both straight and curved turnouts. This guide covers curved turnouts. For straight turnouts please refer to UG14.

To create a properly performing curved turnout it is essential that the points of the frog be carefully curved throughout the entire length of the frog. Even a slight misalignment at the frog point can cause endless trouble. Using the Frog Helper tool along with the Fast Tracks Rail Roller will help you create curved frog points that virtually guarantee a smooth running curved turnout.

Larger, printable versions of the images in this manual are supplied with the documentation CD that is included with any track construction tools that you purchase from Fast Tracks. Look for the Documentation Images link on the CD menu.

The latest version of this guide is always available for download from the Fast Tracks website at www.fast-tracks.net/documents

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What You Will Need

In addition to rail and the Frog Helper you will need the following tools:

- 35W (or larger) soldering iron with pencil style tip.
- Small diameter solder (.010" to .015" diameter)
- PointForm point filing tool (Optional, but highly recommended)
- Rail Roller rail bending tool (Optional, but highly recommended)
- Soldering flux
- Small brush

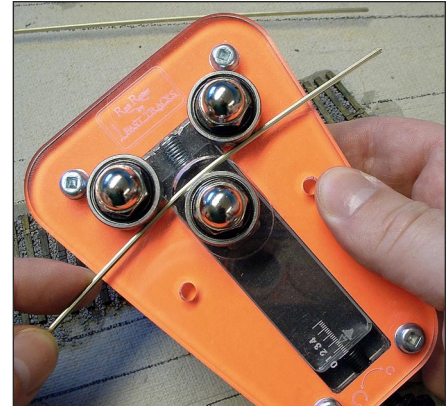
The PointForm tool is available on our website at www.fast-tracks.net/pointform.

The Rail Roller rail bending tool is available at www.fast-tracks.net/railroller.

Step 1

Using the Fast Tracks Rail Roller tool, or the method that you prefer, prebend a length of rail to match one of the two radii of your curved turnout. (Image 1)

Image 1



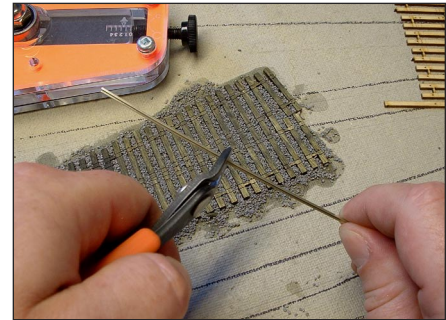
Step 2

The first 1 or 2 inches of the curved rail will not have a consistent radius in it, cut this off and set it aside. (Image 2)

Step 3

Confirm that the radius of the rail matches the radius of the turnout by placing it onto the ties. If it does not match, re-adjust the radius. Absolute accuracy is not required, just get it close. (Image 3)

Image 2



Step 4

Repeat this process for the other radius in the frog. (Image 4)

Image 3

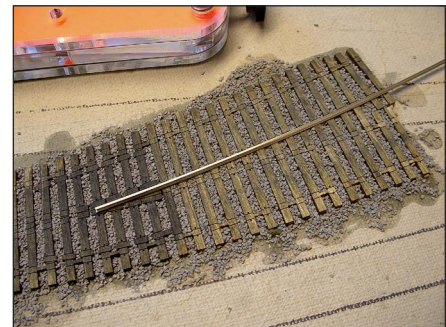
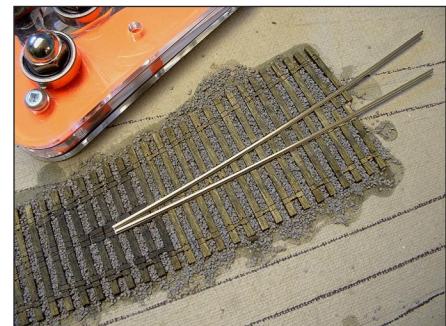


Image 4



Step 5

Using the PointForm tool create the two halves of the frog points. (Image 5)

The key to building turnouts is to produce the longest, sharpest frog points possible. This will not only give you smooth running turnout, but will set your trackwork apart from ready-to-run track.

Curved rail can easily be filed in the PointForm tool, just ensure that it is firmly held against the side of the tool when it is clamped ensuring that it is flush with the edge.

You can file the points by hand, but for fast and flawless results we recommend that you use a PointForm tool.



Image 5

Step 6

Insert the two rails into the Frog Helper base side down sliding them forward until they meet with the ends of both pieces in line with each other. Slide the rails as far forward as possible, but not so far as to “tip” the pieces over. (Image 6)

Inserting the rail into the slot will force them straight. Don’t worry, they will return to their original shape when you remove them from the jig.

A weight can be placed onto the rails to keep them in place for the next step. A PointForm tool works well for this. 😊



Image 6

Step 7

Using a small brush, apply a bit of flux onto the top of the rails (Image 7)



Image 7

Step 8

Apply heat to the top of the rails and solder the two halves together. Keeping the iron at a slight angle will increase the area the iron will contact the rail, making soldering easier. (Image 8)

Wipe away any excess solder while it is still hot.



Image 8

Step 9

Once the solder has cooled, remove the points from the Frog Helper. The rails will return to their original curved shape. (Image 9)

Step 10

The point of the frog will be pre-stressed into the proper curve, however the tail end of the frog rails may not precisely match the curvature of the turnout. Don't worry about this as you will be able to curve the tail end when the rails are spiked in place. (Image 10)

Image 9

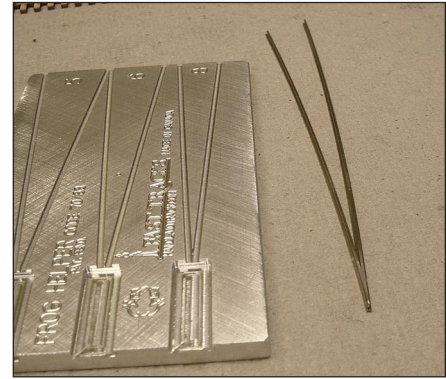


Image 10

