



## **RAILROAD MODEL COMPETITION**

## **TRACK PLAN CREATION BOOKLET**

**FRESNO STATE**<sup>®</sup>

Transportation Institute



# TRACK PLAN CREATION

## TRACK PLAN CREATION BOOKLET

### ▶ CREATING RADIUS TEMPLATE

#### Materials Needed:

- Cardstock
- Ruler
- Scissors
- Marker



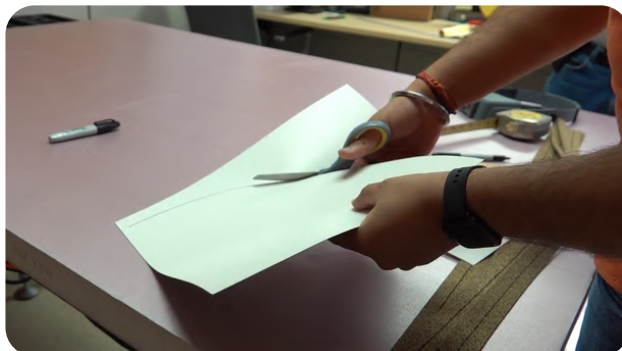
1. Place the ruler on top of the cardstock with one end of the ruler in line with a corner of the cardstock

[ [Video 1, 4:17](#) ]



2. Using the marker, draw an arc while rotating the ruler about a corner of the cardstock by holding the end in place when sketching  
**\*Minimum Radius = 12 in.**

[ [Video 1, 4:33](#) ]

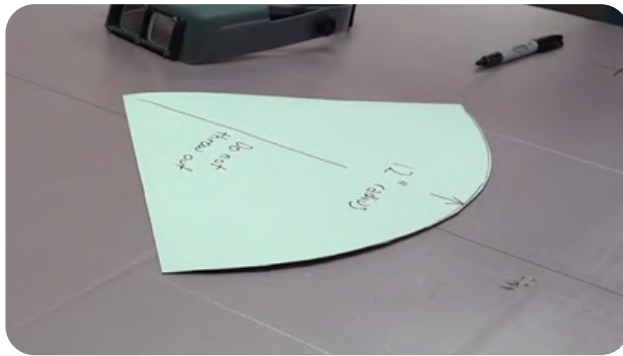


3. Cut the cardstock along the sketched line to create the radius template

[ [Video 1, 5:40](#) ]

# TRACK PLAN CREATION

## ▶ CREATING RADIUS TEMPLATE



4. Recommended labels to write on the template: "12 inches" and "Do Not Throw Away"

[ [Video 1](#), 6:00 ]

## ▶ SKETCHING CURVES



1. Use a flexible ruler to connect two endpoints of the curve

[ [Video 1](#), 7:08 ]

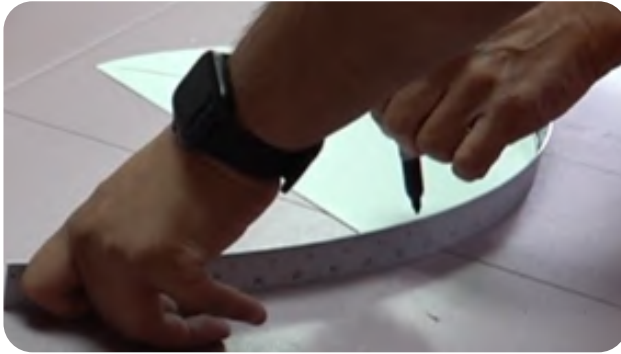


2. Use a radius template on the sharpest part of the curve

[ [Video 1](#), 8:35 ]

# TRACK PLAN CREATION

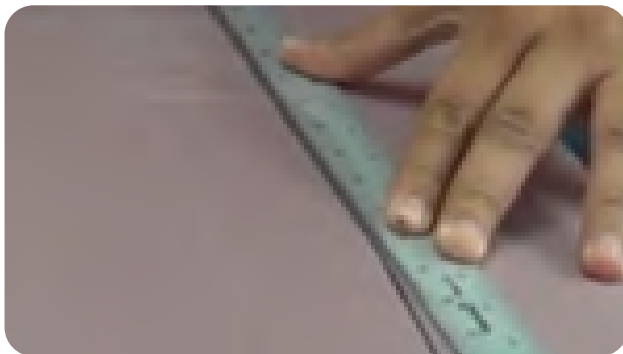
## ▶ SKETCHING CURVES



3. Mark the curve created by the ruler around the radius template  
**Note: If bigger than the radius, you are good. If less than the radius, make the ruler wider and mark it**

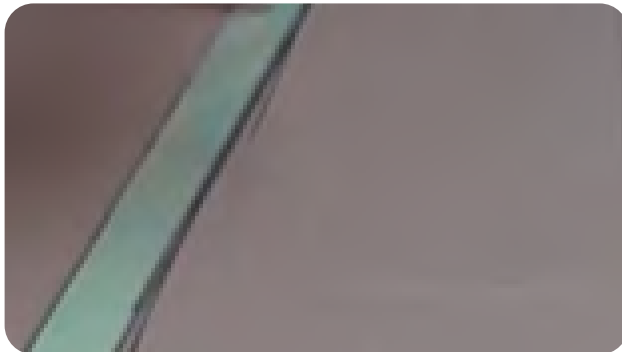
[ [Video 1](#), 8:50 ]

## ▶ SKETCHING STRAIGHT SECTIONS



1. Align the ruler with the previous part of the sketch and make the ruler straight where you want a straight section

[ [Video 1](#), 12:00 ]



2. Draw a line using the ruler as a guide

[ [Video 1](#), 16:10 ]

# TRACK PLAN CREATION

## ▶ CORK ROADBED PREPARATION

### Materials Needed:

- Corkbed
- Caulk
- T-Pins
- Scissors



1. Separate the cork roadbeds into two piles: the flat side and the beveled side

**\*Two sides to each roadbed piece**  
[ [Video 1, 18:17](#) ]



2. Cut the caulk tube at a diagonal to help spread out the caulk  
[ [Video 1, 21:25](#) ]

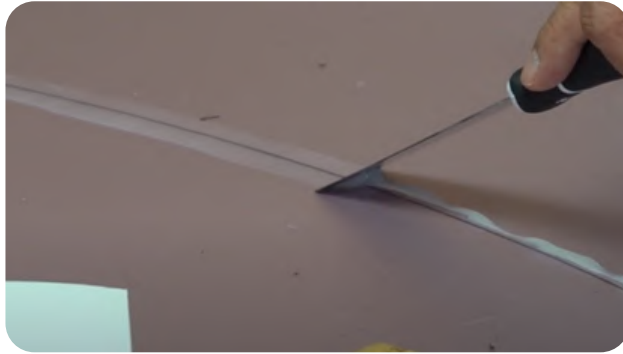


3. Put caulk over the drawn line and spread it using a putty knife  
[ [Video 1, 21:38](#) ]

# TRACK PLAN CREATION

## TRACK PLAN CREATION BOOKLET

### ▶ LAYING THE CORK ROADBED



4. Put enough caulk down on a piece of cork roadbed (about 3 ft long)

[ [Video 1, 22:20](#) ]



5. Lay down the edge and pin it down, adjusting the cork roadbed to lay on the side of the line. Pin as you go (About every 6 inches).

[ [Video 1, 22:32](#) ]



6. Take another cork roadbed and lay it on the other half of the line. **\*Do not match up the ends for both cork roadbeds; start a little farther down than the other one.**

[ [Video 1, 25:27](#) ]



7. Repeat the pinning process **\*Make sure the cork bed pieces are lying side-to-side**

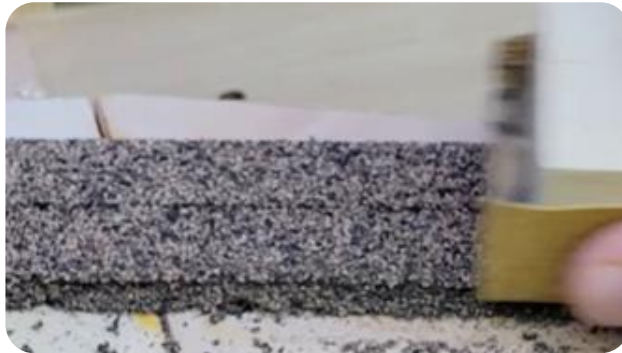
[ [Video 1, 26:06](#) ]

# TRACK PLAN CREATION

## ▶ LAYING THE CORK ROADBED



8. Use a roller on the cork roadbed gently to get it firm, and then let it set for 1-2 days  
[ [Video 1, 18:30](#) ]



9. After the cork roadbed has set, sand the cork roadbed to make it smooth (Preferably with 120 grit sandpaper)  
[ [Video U, 0:30](#) ]

# TRACK PLAN CREATION

## ▶ CUTTING TRACKS

### Materials Needed:

- Tracks
- Track Cutters
- T-Pins
- Track Jointers



1.  
You can use the track cutters' flat side on the rail where you want to cut **\*Flat side is for the part you want to keep, while the diagonal is to get rid of**  
[ [Video 2, 26:40](#) ]



2.  
There are little notches on the back side of the track where you cut with the track cutters' backside  
[ [Video 2, 26:50](#) ]



3.  
To get rid of the plastic tracks, clip the back of the track to separate the railing from the plastic.  
[ [Video 2, 27:20](#) ]



# TRACK PLAN CREATION

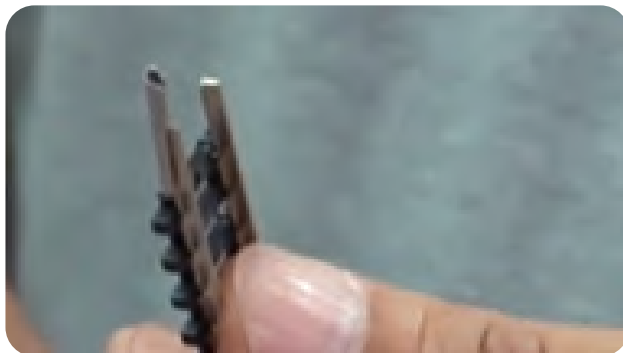
## ▶ CUTTING TRACKS



4. If the railing is blunt or deformed, file the rail down so the joint can go into it smoothly.  
[ [Video 2, 28:32](#) ]



5. Clip both ends of the jointers using the back side of the track cutter to make it easier to go in and not have to cut an extra webbing from the track.  
[ [Video 2, 25:45](#) ]



6. Slide down the jointer on the track and prepare for soldering.  
[ [Video 2, 29:15](#) ]



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