



# **Bob's Miniatures**

**Specializing in Model Railroad Stuff**



**My name is Bob  
and I am a Model  
Railroader.**

**I'm also a 3D  
Model Designer**



**The purpose of this presentation is to show you how to build an HO Scale Barbed Wire Livestock Fence. I will acquaint you with my fencing products which provides quite a few of fencing options. These options include a variety of fence sections to build your great looking fence. We will organize and order the fence parts we need and collect some basic support materials.**

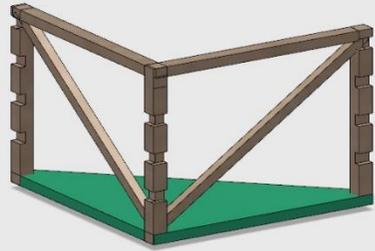


The following instructions are geared for the beginner or the layman with new bench work. You seasoned model railroaders have built, torn down layouts, built again and already pretty much know what you are doing. But tag along anyway, you may glean something.

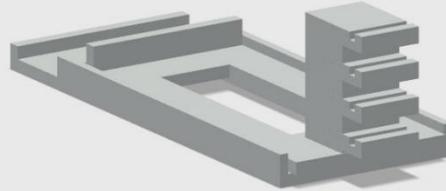
Don't worry if the video gets a little too fast for taking notes. It is available on my information website as an Adobe .pdf file that you can down-load and print.

<https://bobsminiatures.com/>

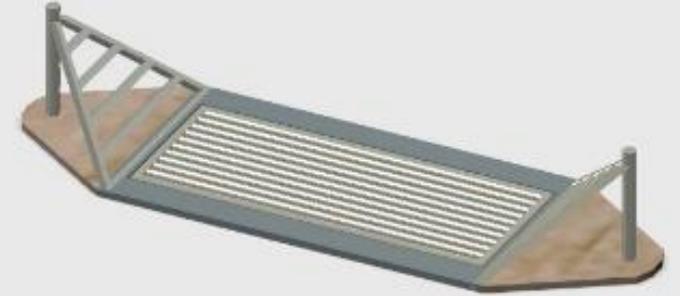
## Suggested parts for this project



Barbed Wire Fence  
Outside Corner  
Part # BWF-004  
[bobsminiatures.com](http://bobsminiatures.com)



Barbed Wire Fence Jig (3-pk.)  
Part # BWF-005  
[bobsminiatures.com](http://bobsminiatures.com)

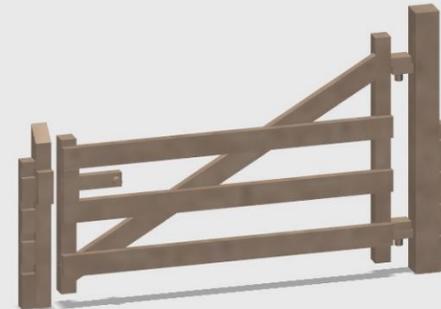


Cattle Guard  
Part # CG-001  
[bobsminiatures.com](http://bobsminiatures.com)



Barbed Wire Fence - Round Posts  
(Part # BWF-001)  
or Square Posts  
(Part # BWF-002)  
[bobsminiatures.com](http://bobsminiatures.com)

**And/Or**



Wooden Gate  
For Barbed Wire Fence  
Part # BWF-004  
[bobsminiatures.com](http://bobsminiatures.com)

# Suggested materials for this project



White Glue  
(Most Hardware Stores)



32 Gauge Artistic Wire  
(I found it on Amazon)



Rust-oleum 2x  
Brown  
(Most Hardware Stores)



Rust-oleum 2x  
Medium Gray  
(Most Hardware Stores)



Model Glue  
(with a fine tip applicator)



1/2" x 12" x 12" Pieces of  
Foam Insulation  
(Builders Supply)



1" or 1 1/2" wide Blue  
Painter's Tape  
(Most Hardware Stores)

- Make a dimensional sketch of your fence line and use it to list the parts needed, figuring 1 3/8" on center between posts.
- You can select corner assemblies as left and right inside and left or right outside. Remember that the wire faces the livestock.
- You can order the Parts you need from my website at:

<https://bobsminiatures.com/>

- Here, you can see the part numbers and the prices for each item. This website will also take you to my shop at Shapway.com

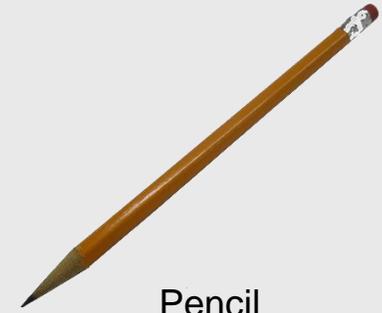
## Suggested tools for this project



Artist's Tweezers  
(I found them on Amazon)



Wooden Clothes Pins



Pencil



Exacto Knife



Jewelry Wire Cutters  
(I found them on Amazon)



Sharpie



Variable speed electric drill  
(Fitted with an eye screw)

At this time you should pretty much have received all of your fence parts and have your support material at hand.

So, let's get to work and build a fence.

First, prepare a painting board to paint your fence parts as shown on the next slide . . .

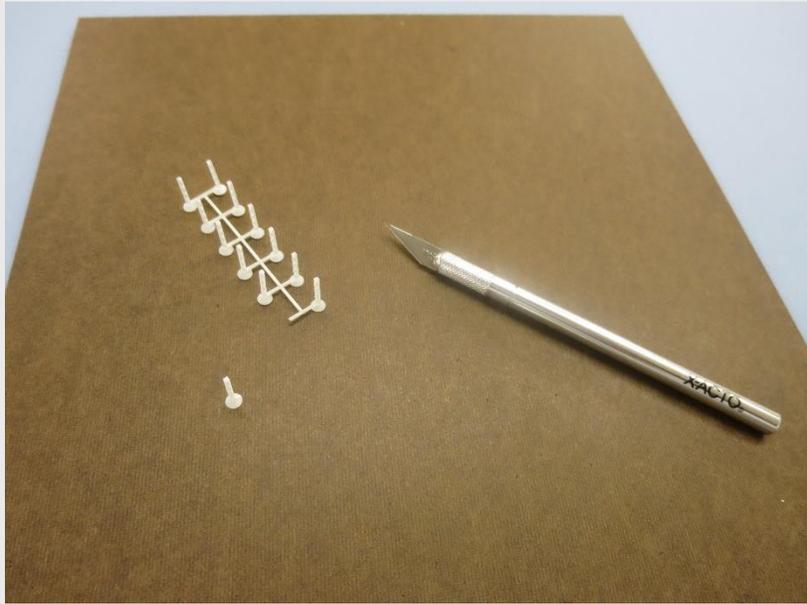
## Paint Board



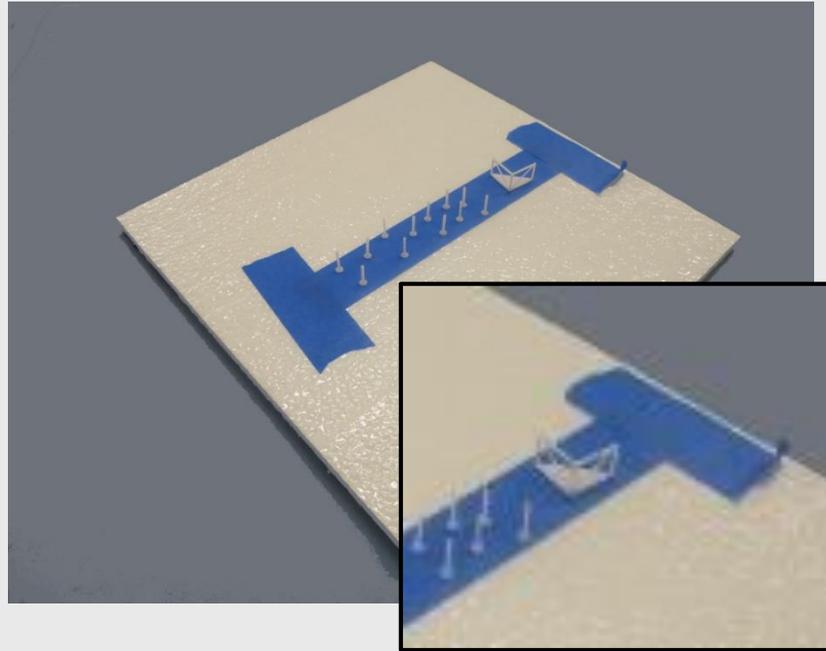
This is my way of painting fence posts and corners:

- Cut out a couple pieces of  $\frac{1}{2}$ " foam insulation about 12" wide x 12" long to use as a part holder while painting your fence. Lay one of the pieces flat on your work bench.
- Only prepare the number of strips that you need as they become unusable after painting. In this example, I'll prepare 3 of the tack strips. Tear off about 6 pieces of 1" wide blue painter's tape that are about 3" long and tack them to the edge of your work bench.
- Tear off a piece of blue tape about 7-8" long and place it along the middle of the piece of insulation with the sticky side up. Using one of the short pieces of tape, tape one end down onto the insulation. Stretch the long tape across the center and tape the other end down with another short piece of tape. Tear off two more pieces of blue tape about 7-8" long and repeat the process, placing them parallel to the first piece and somewhere between it and the edge of the insulation.
- Now you have a sticky surface to hold your work while you spray paint.

## Prepare Your Fencing



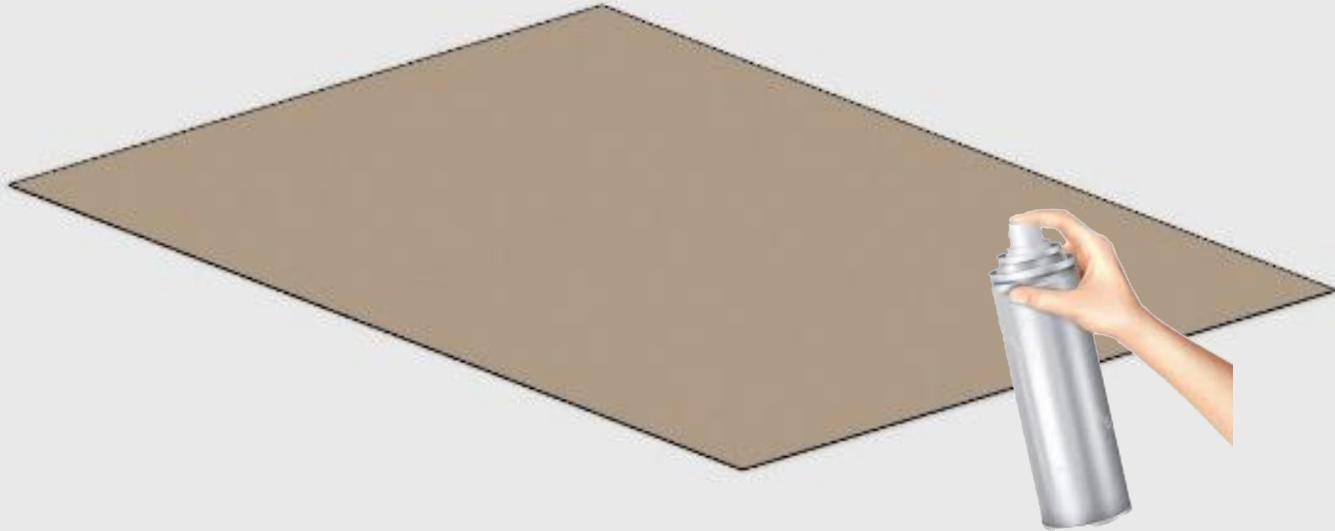
- Cut each post away from the disposable frame on which they are attached with an Exacto Knife. Scrape off any burs on the post left by the cut.



- Press the base of each post and the corner section onto the inverted strip of tape as suggest in the previous slide.

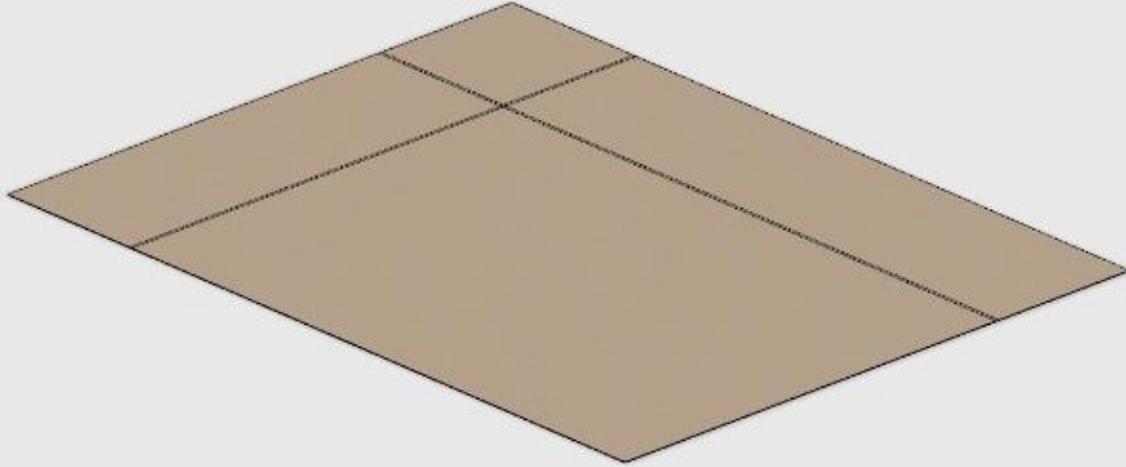


- Step outside or where ever you paint and give the posts a light to moderate coat of flat or satin brown paint. Avoid caking the paint into the small notches as they receive the wire.

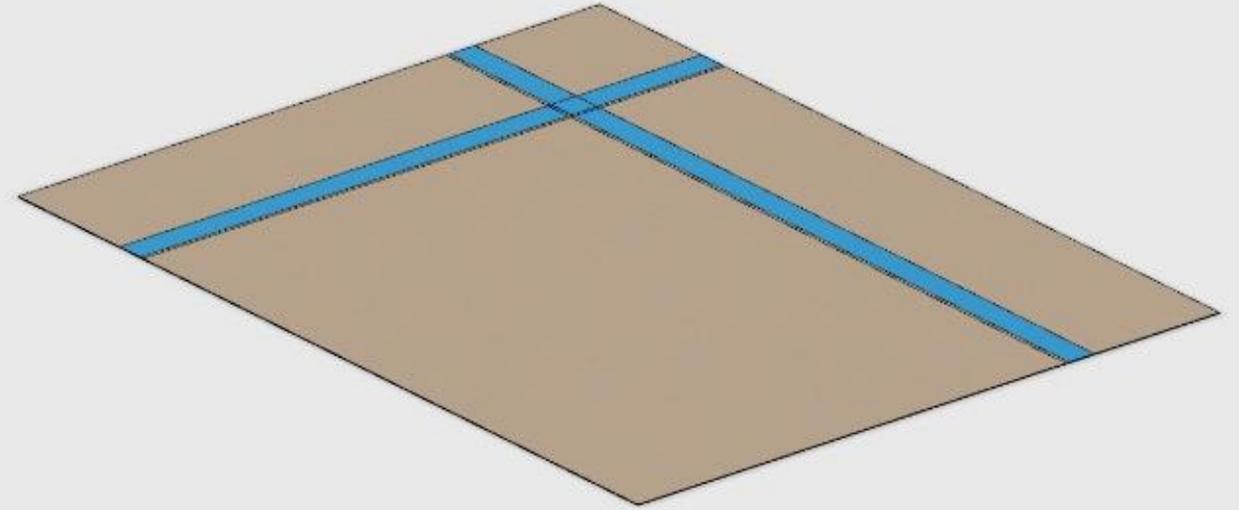


- I don't need another Barbed Wire fence at this time, so I have prepared a scrap of hard board for a presentation diorama. I'm not much of a photographer, so I digitized most of the detail views.
- I painted my board tan for contrast.

## Prepare Your Layout for the Fencing

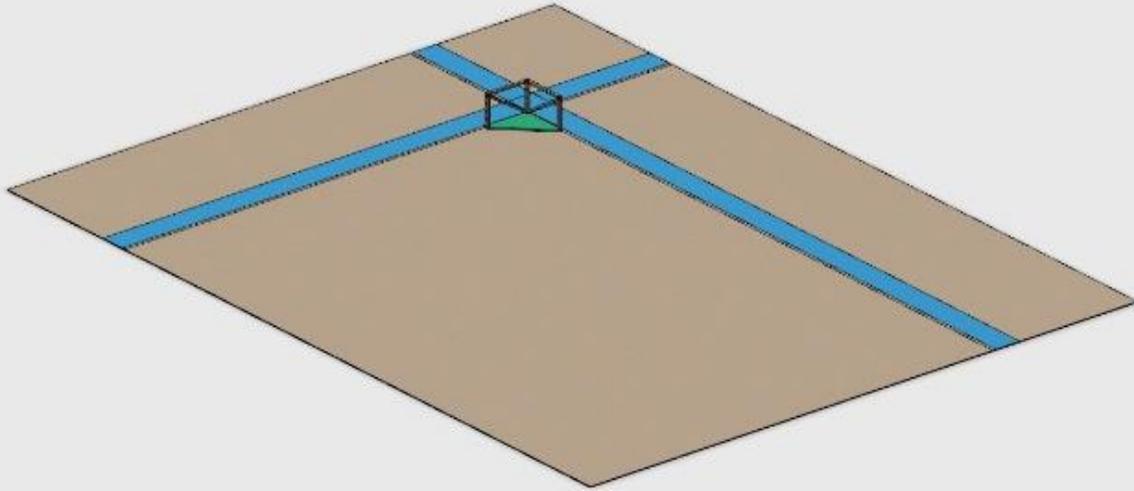


- Begin with the perimeter of your fence for your corner sections by drawing it onto your layout with a pencil.
- Then, draw a second line  $1/16$ " outside and parallel to the first line. This line is for installing the fence posts (This creates the proper off-set to align each single post with the corner posts.)

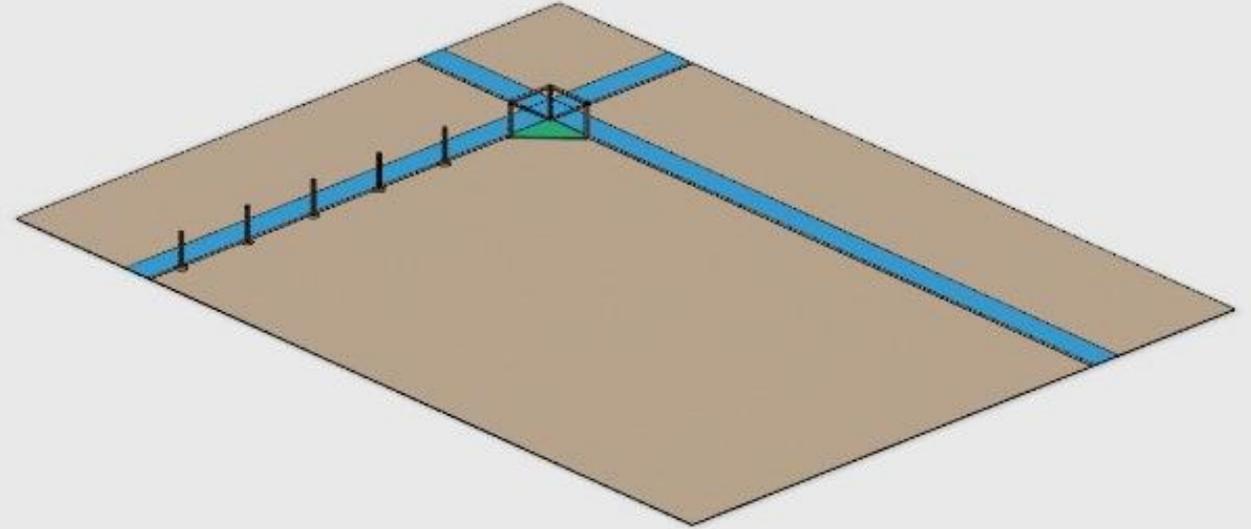


- Apply a  $1/2$ " wide strip of blue painter's tape along the edge of the outside line. This will provide a "bump-up-against" edge for the bases of your fence posts to keep them accurately aligned.

## Installing Your Fence Parts

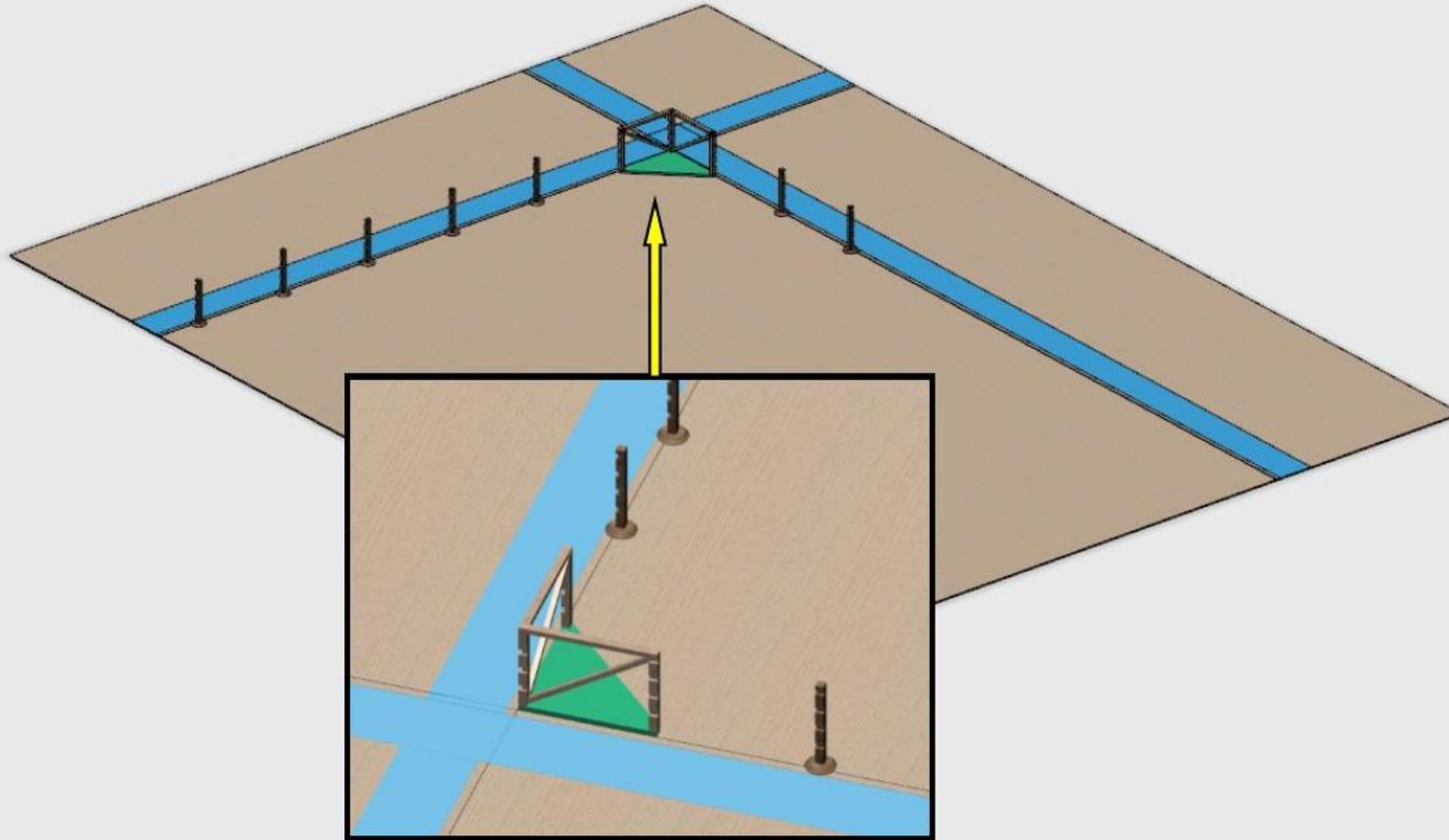


- Use a white glue to install the corner post assembly along the inside line. Doesn't need much glue. I use either Elmer's or Woodland Scenics Scenic Glue.



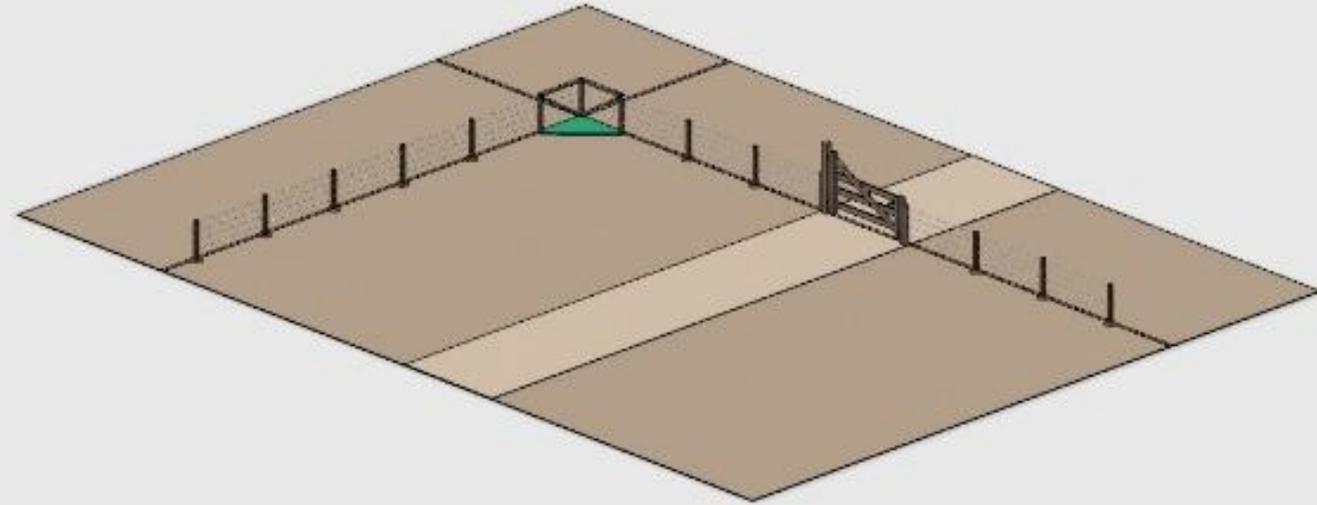
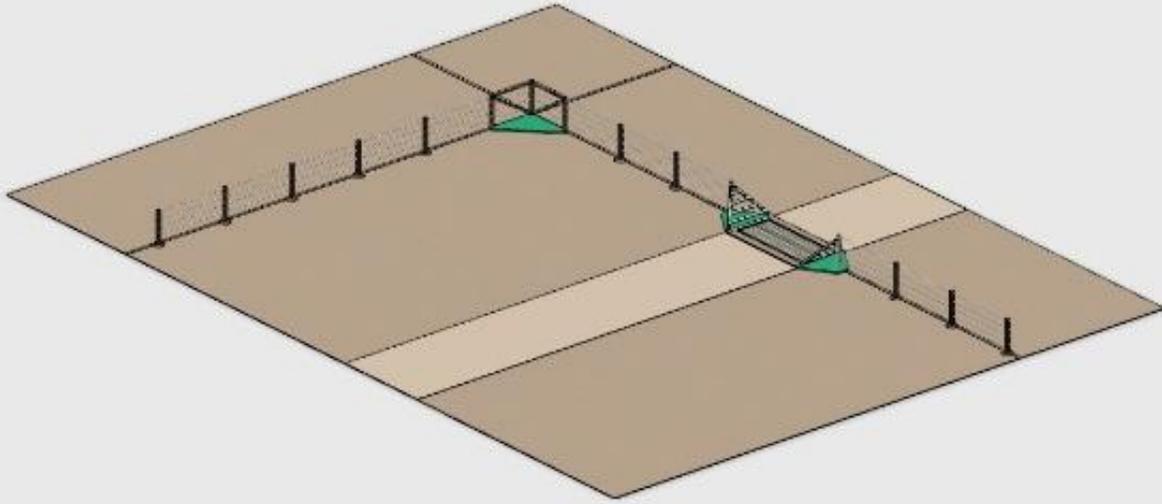
- I'll use square posts for this diorama. Use a white glue to install the single posts along the outside line. Doesn't need much. Use a piece of paper with a couple of drops of glue and dip bottom of the bases lightly into the glue. Fence posts are installed about 8 - 10 ft. apart, so I would place them each at 1 3/8" on center (which about 10 ft. in HO scale). Be sure the notches are facing the livestock side of the fence.

## Proper Alignment



- This inset shows the proper arrangement of the corners and single posts.
- If adding a Cattle Guard, install the number of posts required to its desired location along the fence line.
- At this time, remove all of the Painter's Tape.

## Add a Road



- Add construction lines for a road through your cattle guard. . .

. . .Or through your Wooden swing gate.

- Now lets make some barbed wire . . .  
Actually there are no barbs, however  
it looks good.

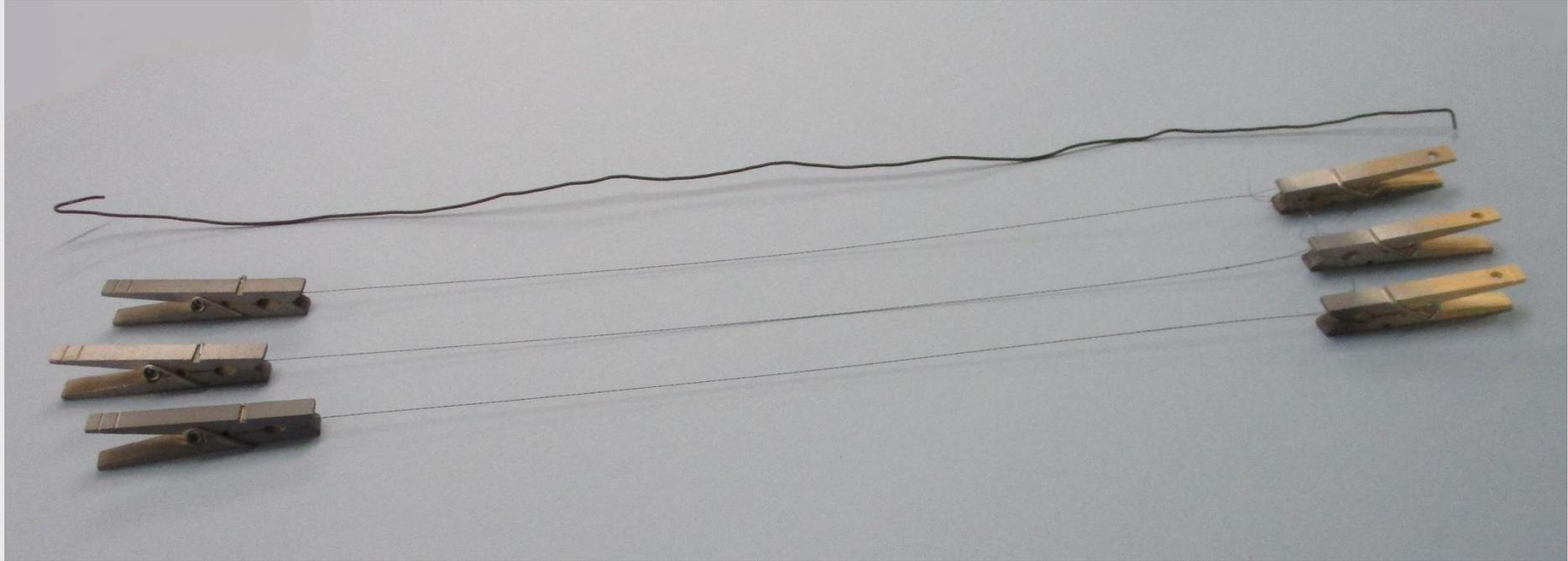
## Cut Some Wire



Let's add 4-strands of barbed wire our fence posts.

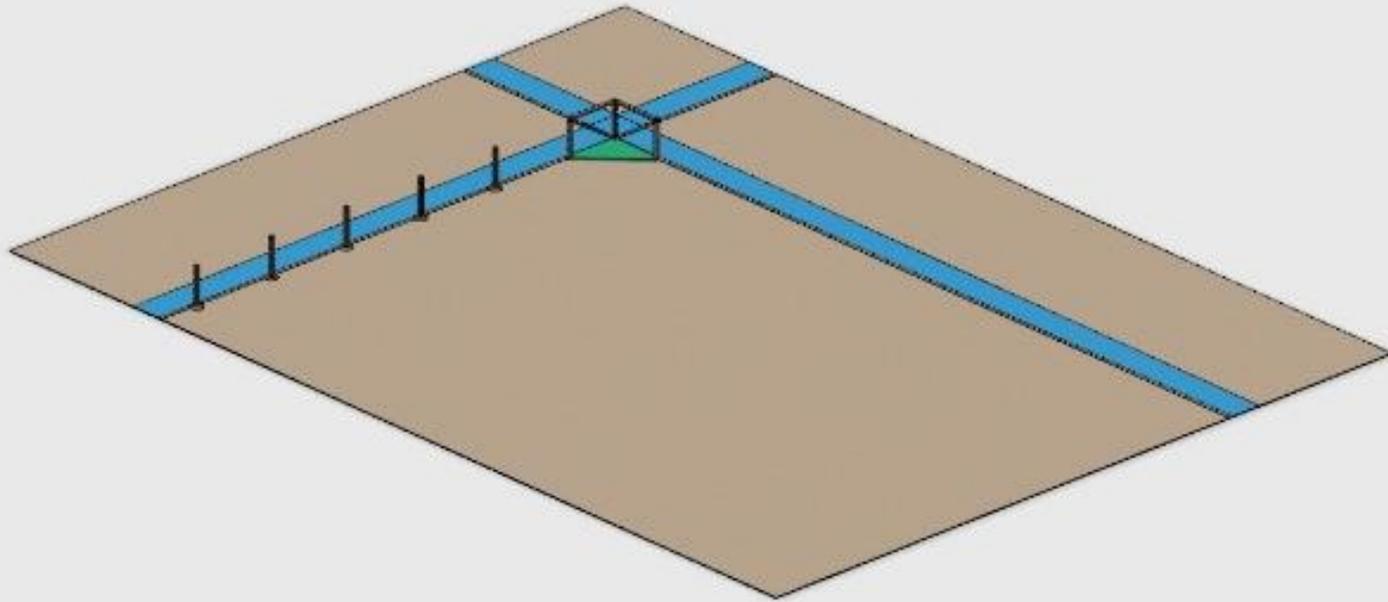
- Install a screw eye into the chuck of an electric drill.
- Cut an approx. 40" length of 32 gauge jeweler's wire, feed an end through the screw eye and then twist the ends together.
- Feed a dowel or pencil through the loop at the twisted ends.
- While holding the drill and dowel so that the wire is taut, activate the drill, and let the two wires twist together uniformly. Don't over-twist or the wire will curl.
- Cut the wire from the drill and dowel and lay aside.
- Repeat this procedure until you have at least enough "barbed wire" to go around your fence perimeter 4-times.

## Paint the wire



- Attach a clothes pin to each end of the wire. While holding one clothes pin as a handle, step outside and spray each wire with a moderate coat of gray paint.
- I hang each painted assembly on my garage door rail with a piece of utility wire to dry.

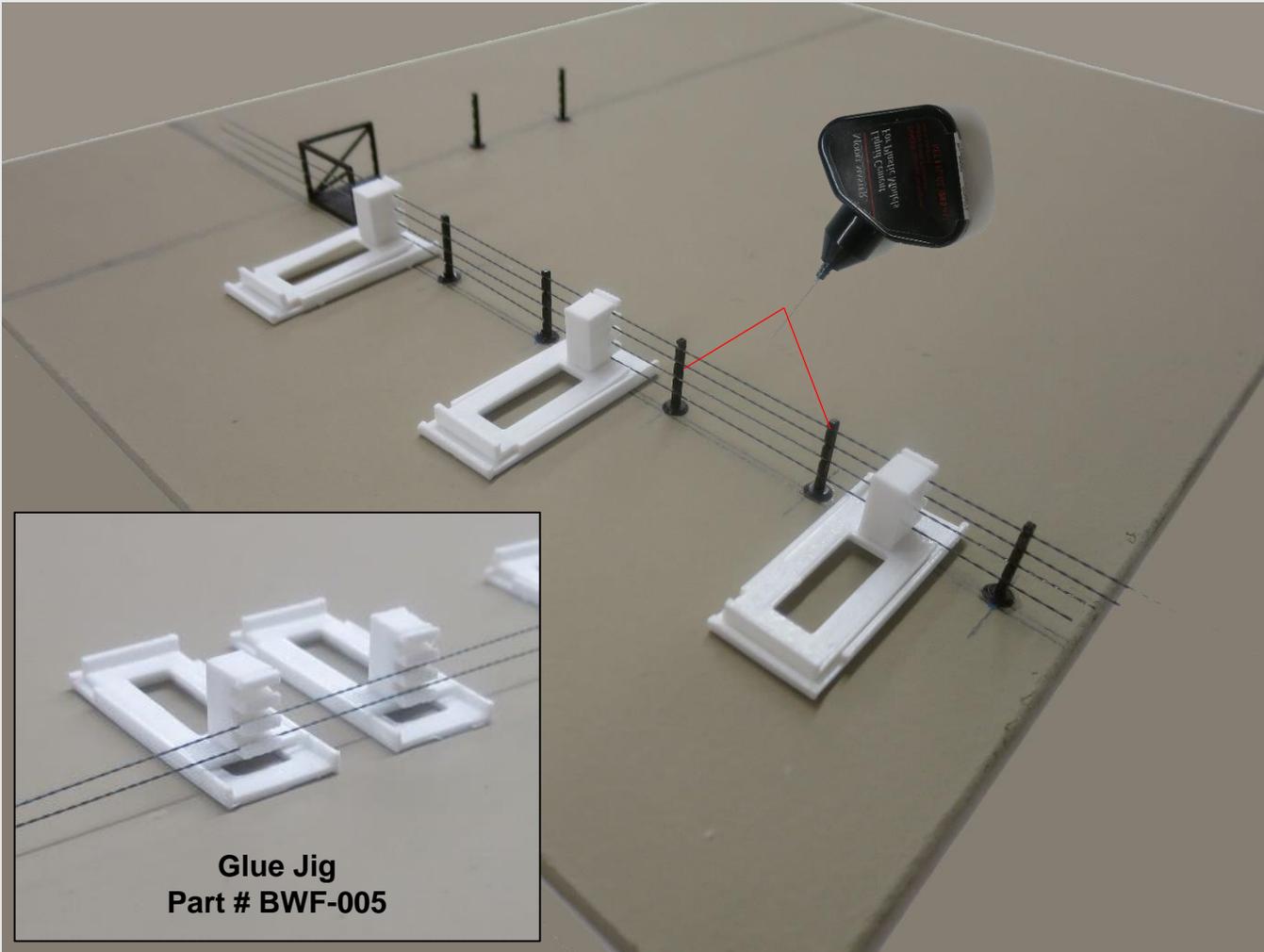
## Cut Some Wire



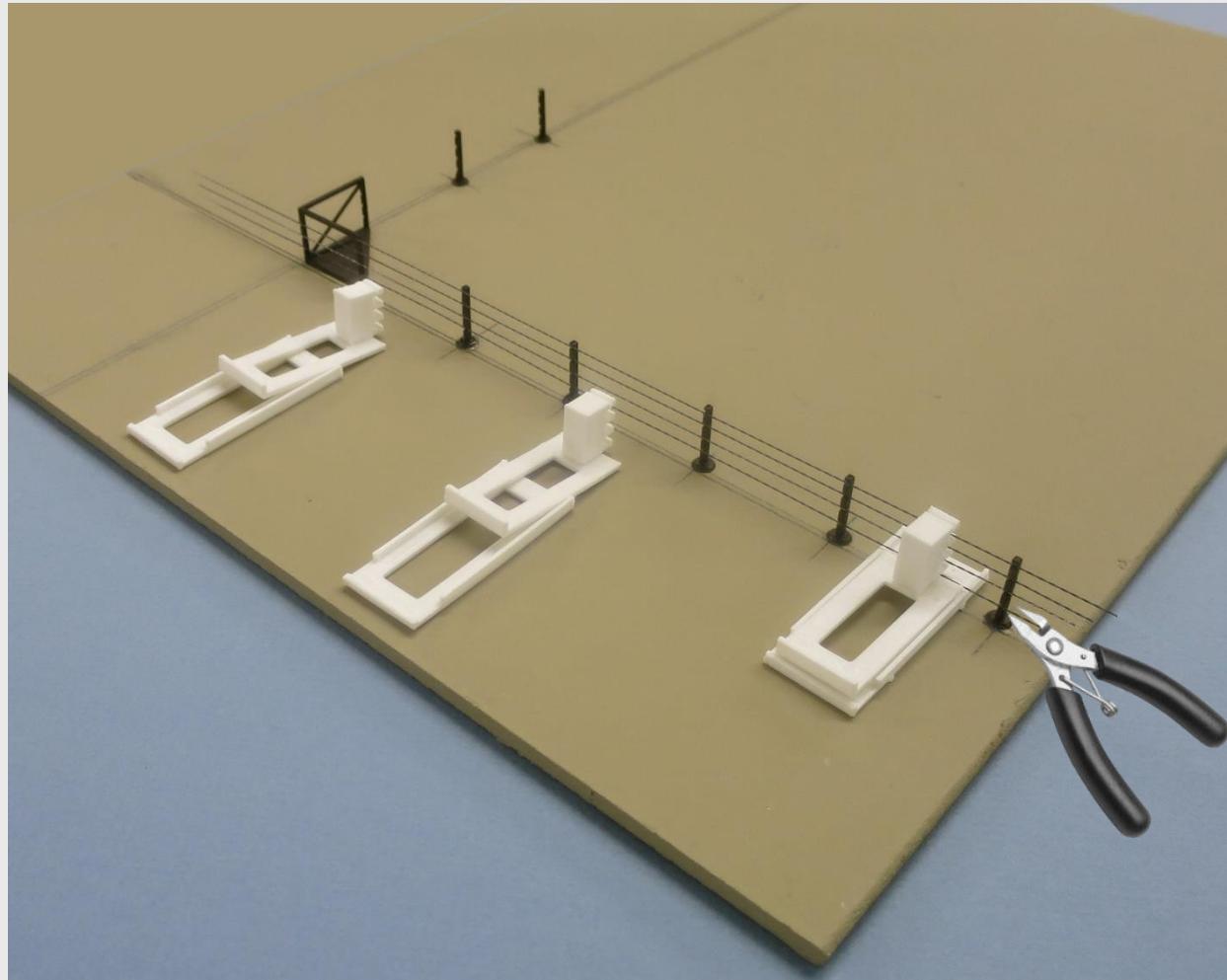
- Choose a fence line that you wish to begin. I have chosen the section of fence without the cattle guard.
- Measure the distance from the Corner Post to last post and cut a length of the twisted wire that is at least 2" longer than the measured distance.
- **\*Note\*** Be careful while handling each strip of wire as they bend easily and are difficult to bend straight again. Wire runs need to be straight and uniform. However they become less delicate once they are glued into place.

## Install Some Wire

- Refer to the inset and mount 4-strands of painted wire onto the jig shelves with a pair of tweezers. Note the slot on each shelf that hold the wire in place.
- **Be Patient.** Loading the wire onto the jigs can be frustrating. The jigs come in pretty handy, though in the next steps.
- Use a thin scrap of wood or wooden paint stirrer behind the jigs to slide the assembly of jigs and wire lightly against the fence posts, where only the wire engages the posts. Guide each row of wire into and against the back of the notches on each fence post using a pair of tweezers or an Exacto knife.
- Add a drop of model glue to each notch. Be sure the wire is secured into each notch. Let the glue dry thoroughly before proceeding.

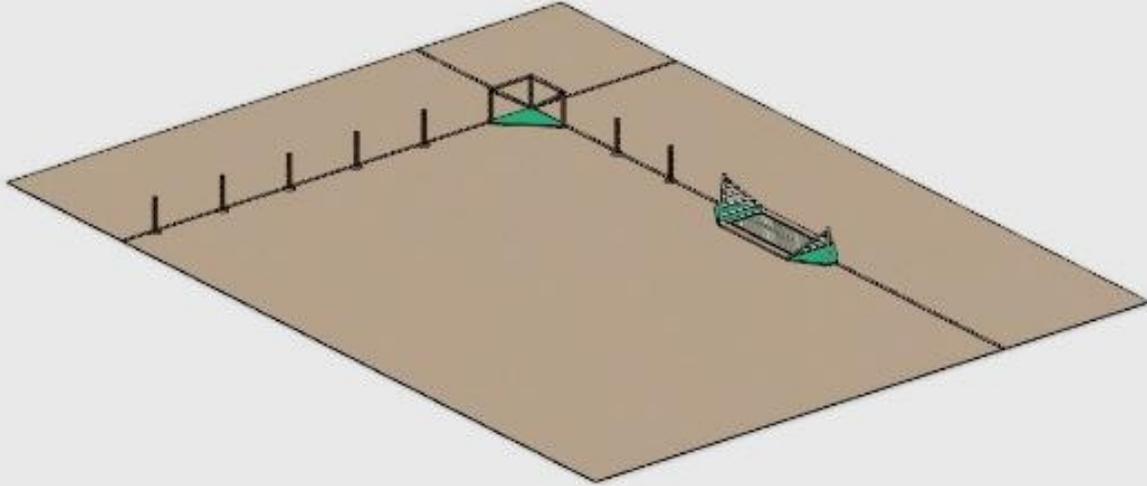


## Trim Some Wire

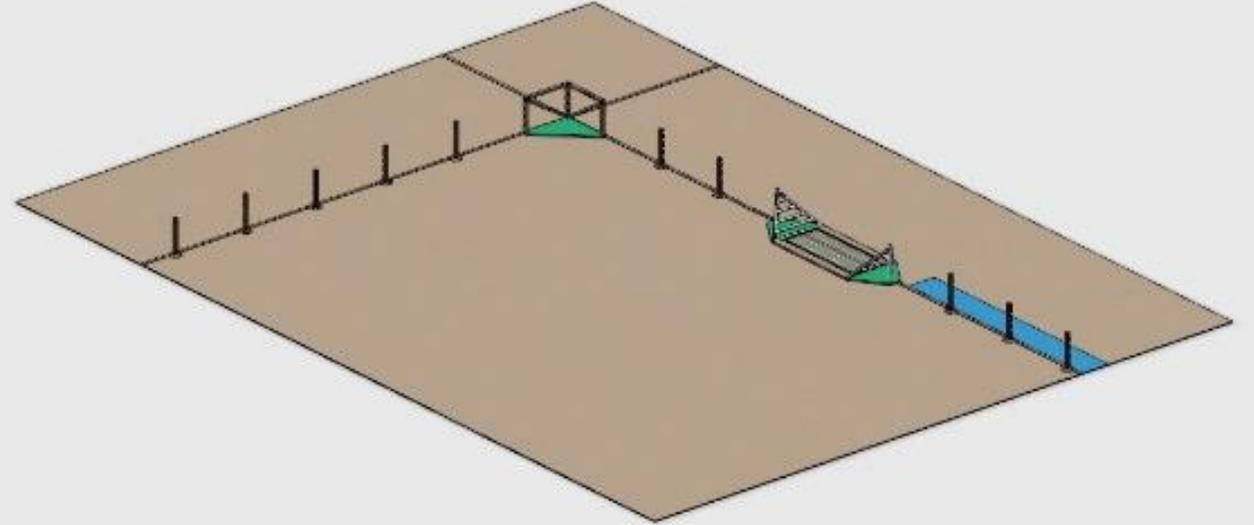


- When the glue is well dried, remove each jig by gently pulling the base out from under the wire shelf assembly. This allows the wire shelf to drop below the wire and the jig to be pulled away from the fence.
- With a pair of jewelry wire cutters, carefully nip off each piece of extra wire hanging over the outside posts.
- **Now it's time to install more posts and the cattle guard.**

## Adding a Cattle Guard

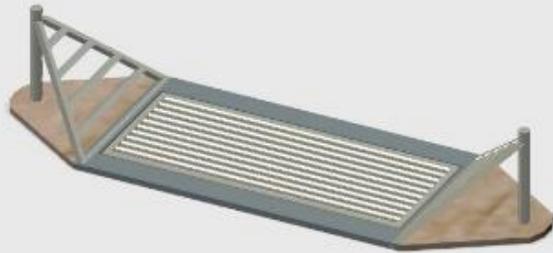


- If desired, install a cattle guard (part # CG-001) or a single wooden gate (part # WG-003). Glue it in place with white glue, centered on the fence line and equal distance as the post settings. Be sure the notches on the posts align with the other posts as you will be installing a strip of straight wire onto them.



- Add more tape and posts as needed for completing your planned perimeter.

## Adding a Cattle Guard or Gate

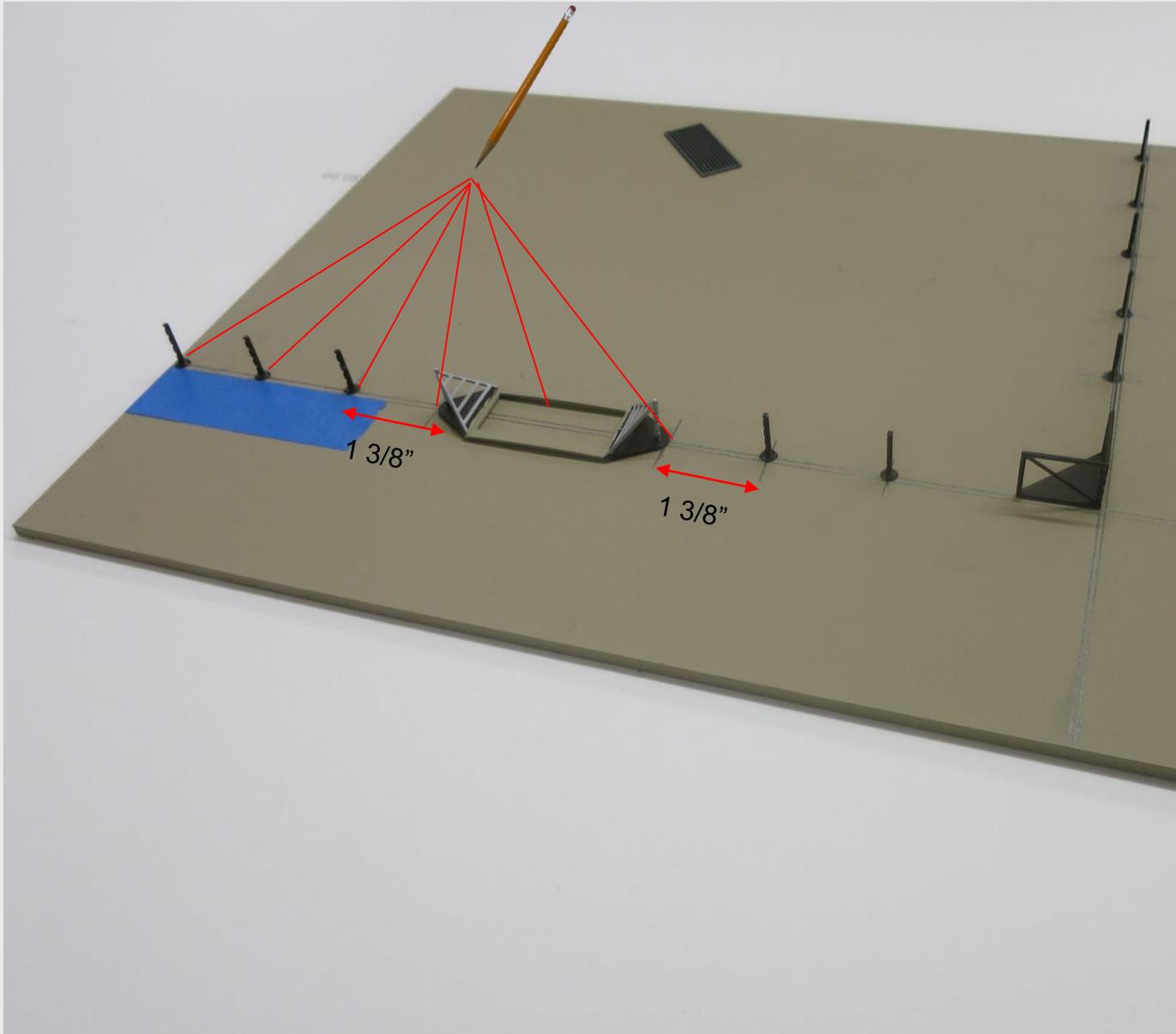


- The Cattle Guard and the Gate need special finishing. Go to my website at:

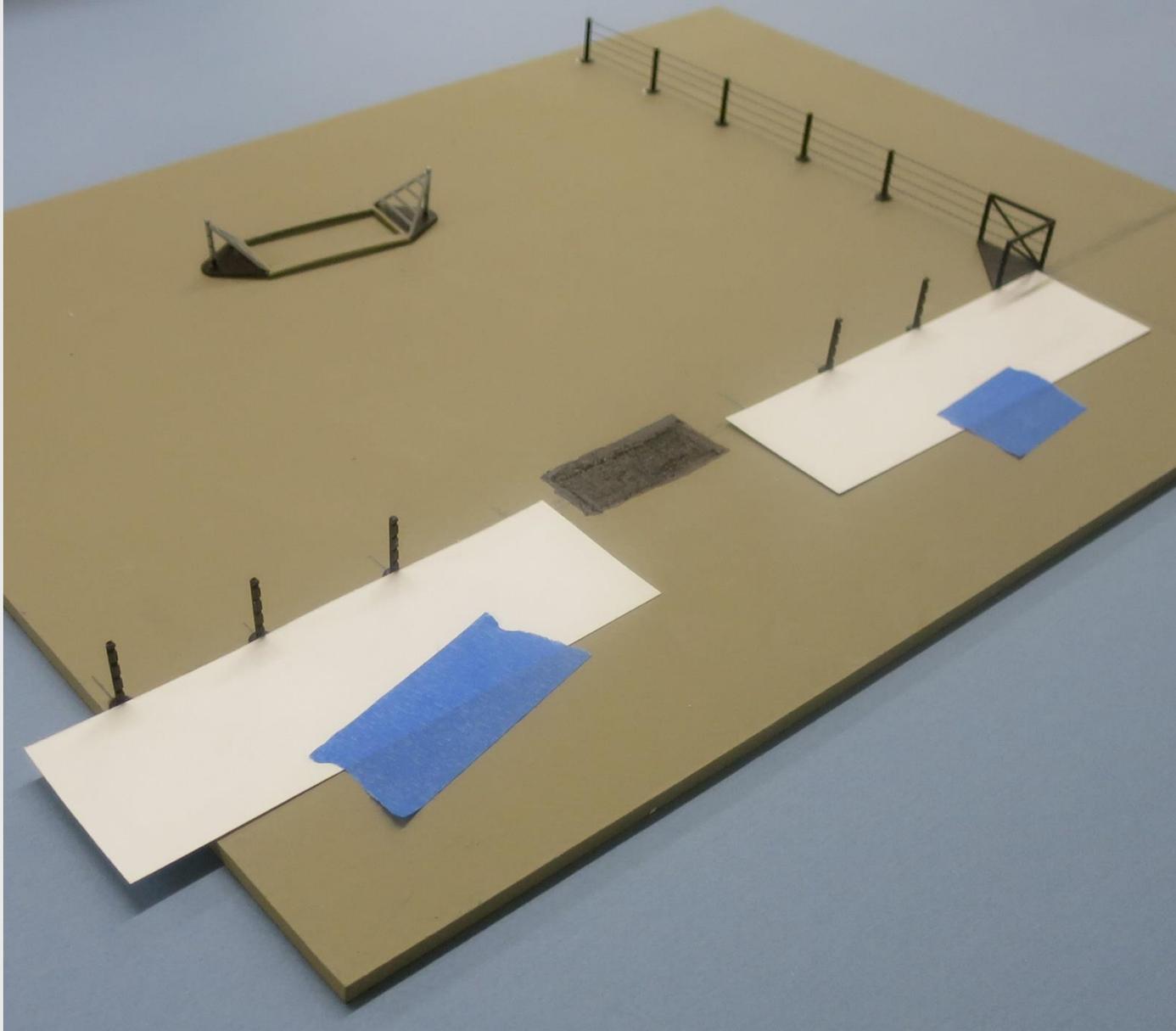
[bobsminiatures.com](http://bobsminiatures.com)

and review the finishing suggestions.

## Install a Cattle Guard

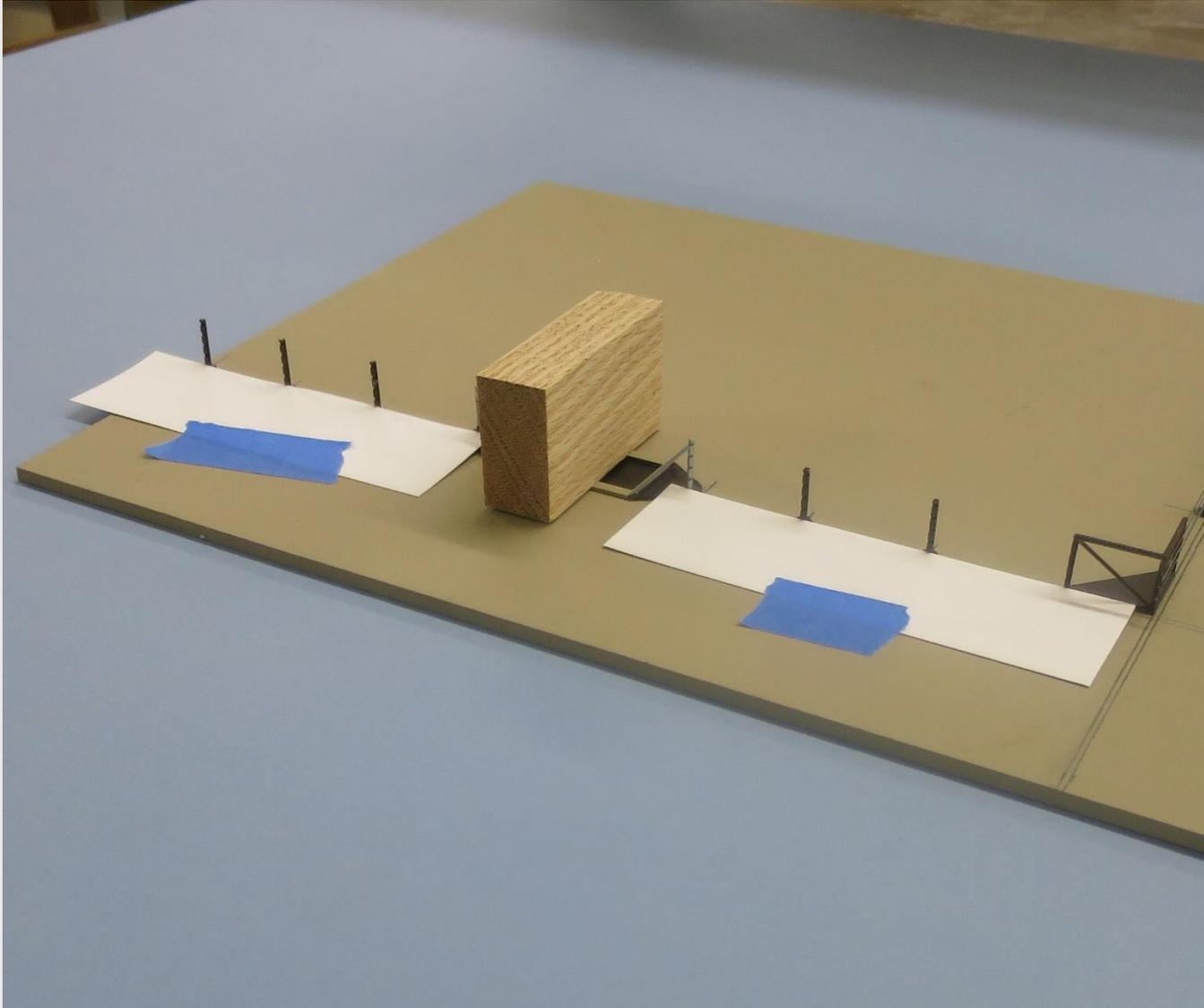


- Add more blue tape as needed along you fence line. Space the posts 1 3/8" on center.
- Lay the cattle guard centered along the line with its posts 1 3/8" from the last single post and mark the outside end edges with a pencil.
- Trace the inside rectangle where the grill goes with a pencil, remove the cattle guard and fill the rectangle with a sharpie marker. You want the area under the grill to appear like a spider infested bottomless pit.



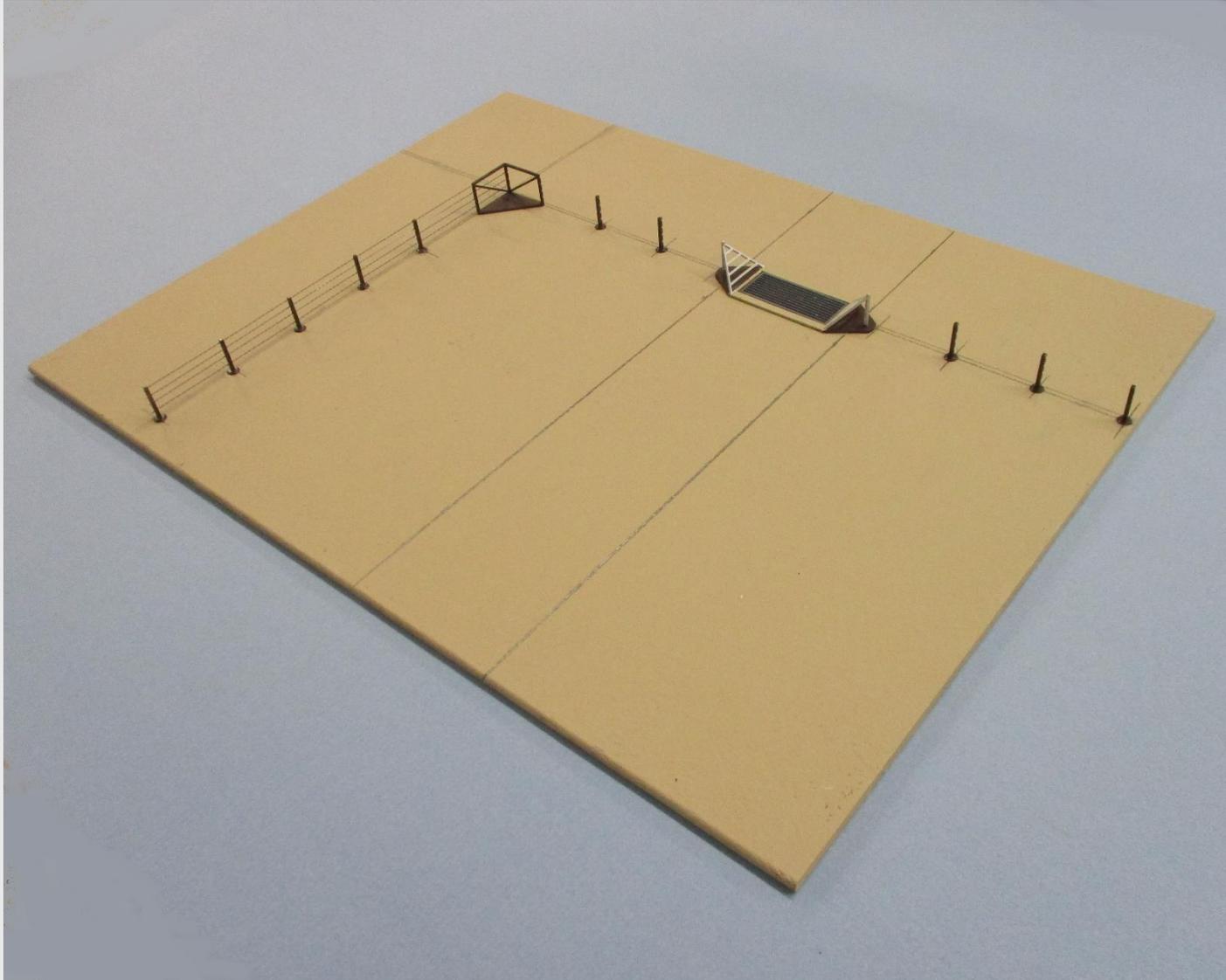
- Glue in the remainder of the fence posts and let dry.
- Cut a 3 x 5 card in half lengthwise and place the long, straight edge of each against the fence posts on each side of the cattle guard opening as shown. Tape down each card with blue tape. The card end should be placed slightly passed where the cattle guard posts go.

## Completion



- Add a light to moderate coat of white glue to the bottom of the cattle guard and install it in place with the posts against the card edge and its ends on the pencil marks that you made earlier.
- The plastic is as thin as 3D printing will allow and has a tendency to bow in the middle. Place a weight across the opening, such as a small block of wood to maintain a flat surface until the glue dries.
- I recommend not installing the grill until the surrounding ballast and turf is completed. It's tough removing the residue from between the grill openings.

## Be Creative



- Complete the installation of the barbed wire in the manner shown earlier.
- Be creative. Add some tan ballast for the roadway. Add various colors of green turf for grassy surroundings. Add some livestock. Maybe add one of my hay balers.
- I made a couple of raked hay rows with some crushed Shredded Wheat cereal, a little glue and paint and sprinkled with dark green turf.

# Layout Results



**Please Visit My Shop at:**

**<https://www.bobsminiatures.com>**

**OR**

**<https://www.shapeways.com/shops/bob-s-miniatures>**



**End of Presentation**  
**Thanks for viewing**

