
Bob's Miniatures
Specializing in Model Railroad Stuff

The purpose of this presentation is to show you how to build an 8 ft. Or 10 ft. HO Scale chain-link security fence. This is the first part of a 2-part tutorial. In this part, I will acquaint you with my fencing products which provides quite a few of fencing options. These options include a variety of fence sections, including gates. We will organize and order the fence parts we need and collect some basic support materials.

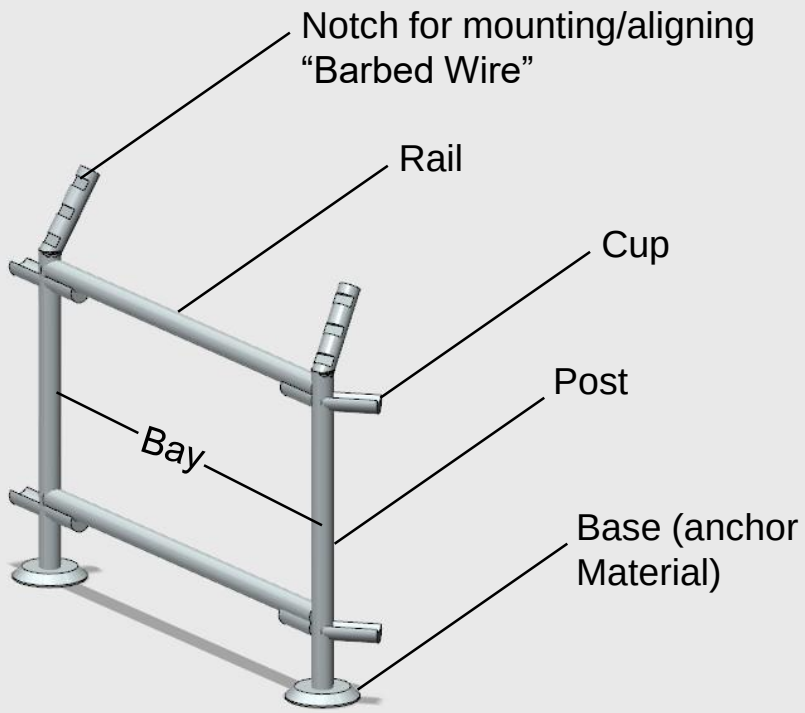
The following instructions are geared for the beginner or the layman with new bench work. You seasoned model railroaders have built, torn down layouts, built again and already pretty much know what you are doing. But tag along anyway, you may glean something.

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

https://bobsminiatures.com/

I tried to keep the scale of my fence within HO scale tolerance. An average section bay of my 8’ and 10’ fence is approx. 1.63"L x .25"W (at the base) x 1.12"H. An average section bay of my 10’ fence is approx. 1.63"L x .25"W (at the base) x 1.46"H. At HO scale 1” = 0.0115” (real inches). 12” is approx. 0.138 (real inches). Therefore, this section is approx. 11.8 ft. long x 1.8 ft. wide (at the base) x 8.0 ft. High. (or 10.5’ high for the 10’ fence - Real World).

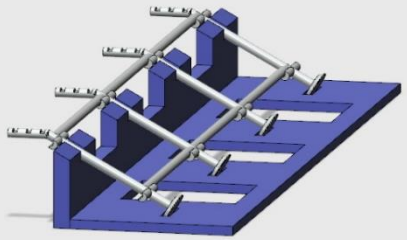
The difference between the 8’ fence and the 10’ fence is only the heights.



My chain-link fence parts arrive unpainted and without chain mesh. They are simply fence frames that interconnect by gluing the rails of one section onto the receiving cups of another section or post. In my next video, I will show you how to easily convert these simple frames to realistic looking chain-link fences for your HO scale layout. I will show you how to use tulle ribbon as fence chain mesh. Tulle mesh is the stuff used in bridal vails. It is sold separately at yardage stores such as Hobby Lobby. Tulle net works super and you can get it for less than six dollars per spool. Each spool is about 6" wide and holds 25 yards of ribbon fabric. I cut the fabric into strips about 18“ long and 7/8" wide with a straight edge and an exacto knife. I have a fair selection of fence parts from which to choose.

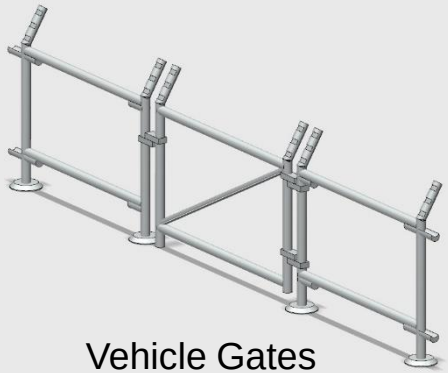
45° or 90° Corners

Straight Sections
(1,2,3 or 4 Bays)

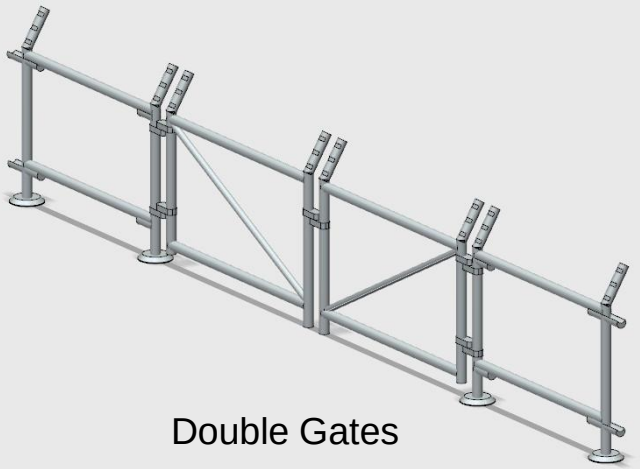


Fence Frame Holding Jig

Man Gates



Vehicle Gates



Double Gates

Sliding Gates

At present, My Shop offers a variety of different security chain-link fence parts.

- Sections with various 45 and 90 deg. corner angles
- Straight Sections

My shop offers 4 different types of gates:

- Man gates that swing left or right
- Single vehicle gate that swing left or right
- A double vehicle gate
- Sliding gates that roll back to the left or right

For a complete listing of fence parts, visit my website:

https://www.bobsminiatures.com

Suggested Materials I Used

1- Spool Tulle Ribbon
(Used to Make Bridal Veils)

Model Glue
With Small Applicator Tip

32 Gauge Artistic Wire
(I found it on Amazon)

White Glue
(Most Hardware Stores)

Mini Swabs
For Glue Application

Disposable Gloves

1” & 1 1/2” wide Blue
Painter’s Tape
(Most Hardware Stores)

Suggested Materials I Used

Aluminum Color
Plastic Bonding Paint

Cutting Board and Straight Edge
For Cutting Tulle Ribbon Sections

12” X 12” Pieces of 1/2” Styrofoam
For Painting Fence Pieces

Suggested Tools I Used For This Project

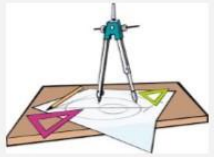
Artist's Tweezers
(I found them on Amazon)

Exacto Knife

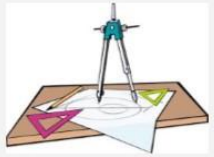
Jewelry Wire Cutters
(I found them on Amazon)

Variable speed electric drill
(Fitted with an eye screw)

Now that you have an overview of my fence products and options, let’s move onto the planning and material support.



The first thing you need is to develop a plan. With a pencil and straight edge, physically draw the perimeter of your desired fence line onto your layout. A bit of existing turf scraping may be necessary. Use a scale or tape measure to measure stretches between angles and a protractor to measure each angle. Mark the location of each gate (man, vehicle or sliding gate) along the path. On a separate piece of paper, like computer paper, make a proportional drawing of the perimeter and record each measurement along its perimeter.



Use your sketch-up to order all of your parts, including straight sections, corner sections and gates. Keep in mind that the section parts can be carefully cut across the rails to shorten the section into place. However, keep in mind they cannot be lengthened.

On the next slide, I prepared a random HO scale chain-link security fence perimeter as my tutorial fence project. It is about 15 ½” Long and 5 ¾” Wide. I will follow this schematic while building our sample fence. Don’t worry if the video gets a little too fast for taking notes. It will be available on my information website as an Adobe .pdf file that you can down-load and print at:

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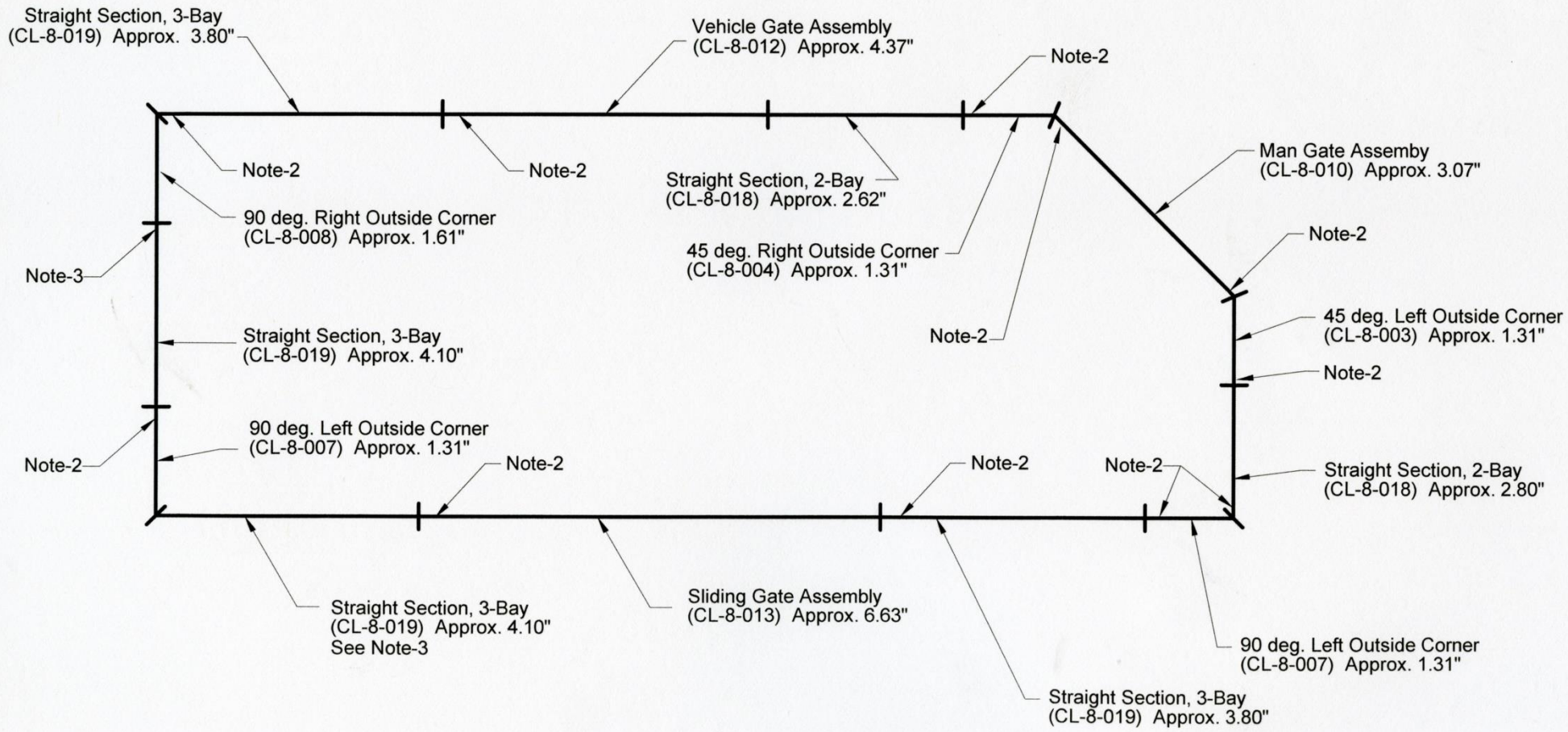
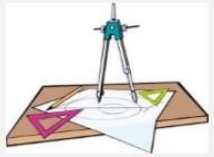
NOTES:

1. All corner sections come with 2-posts for versatility. Both posts are needed for continuing in the same direction. When changing direction, one post needs to be eliminated as you can't place 2-posts on the same spot. Remember that for each post you cut off, you loose 0.30" in length.
2. Cut this post off at the rail cups.
3. Cut off both rails equally to fit opening as needed.





Use my information website at https://bobsminiatures.com/ to compile a shopping list of parts. My products can be found easily under the heading “Products and Price List.” The products file can be down-loaded and printed for reference and assistance in creating your list. Once you get your shopping list together, go to my Shapeways shop by clicking on the delivery man under “Purchasing and Shipping” of this web page. Here, you can place your order. Shapeways doesn’t have the parts in a bin. Each part is printed individually upon time of order, placed in plastic baggies, packed with plenty of cushion and shipped to your address via USPS.

Sample Shopping List

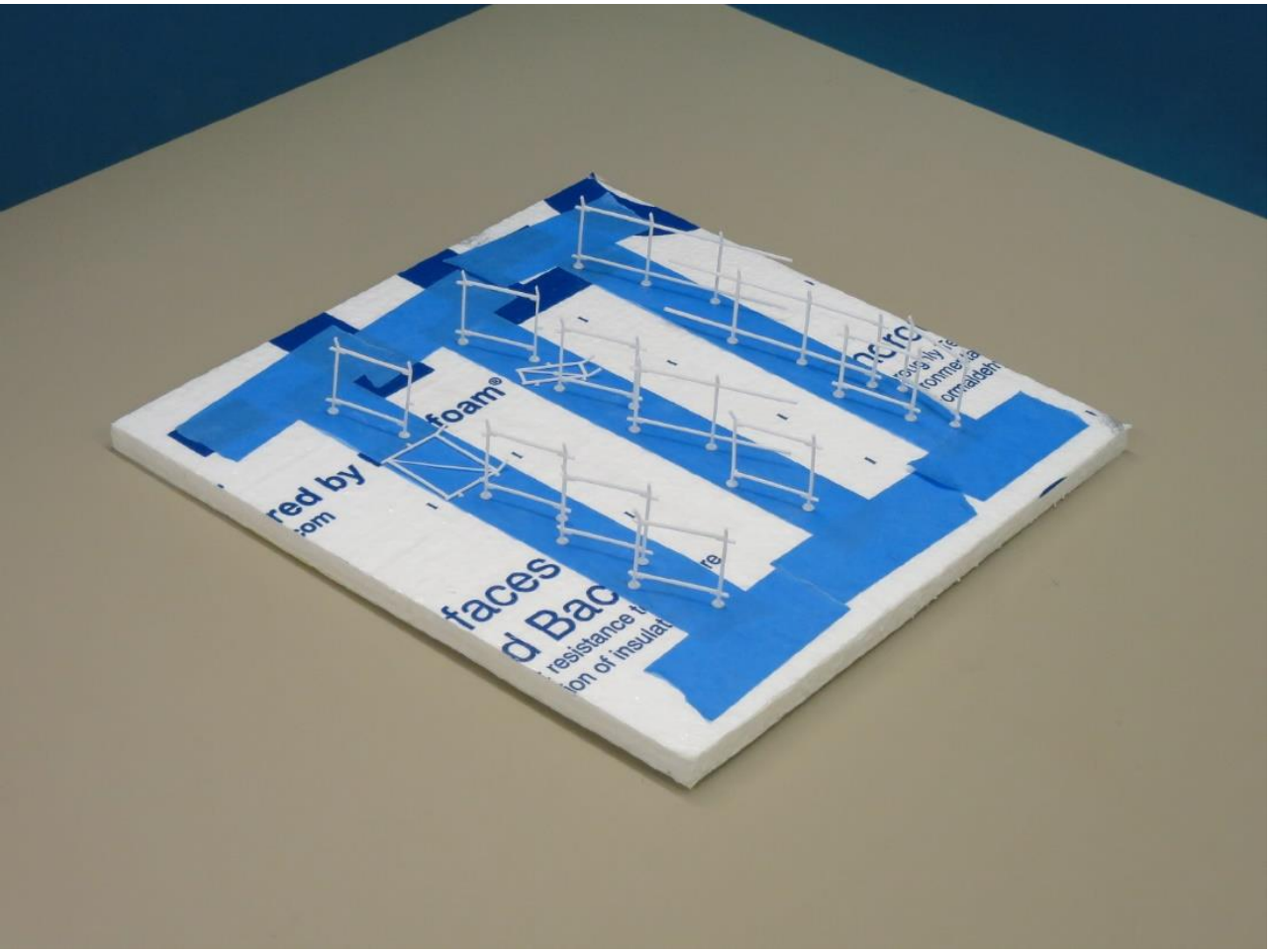
Part No.	Item	Quantity
CL-8-003	45° Left Outside Corner	1
CL-8-004	45° Right Outside Corners	1
CL-8-007	90° Left Outside Corner	2
CL-8-008	90° Right Outside Corner	1
CL-8-010	Man Gate - Right Latch	1
CL-8-012	Vehicle Gate - Right Latch	1
CL-8-013	Sliding Gate - Left Latch	1
CL-8-018	Straight Section, 2-Bay	2
CL-8-019	Straight Section, 3-Bay	4

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.

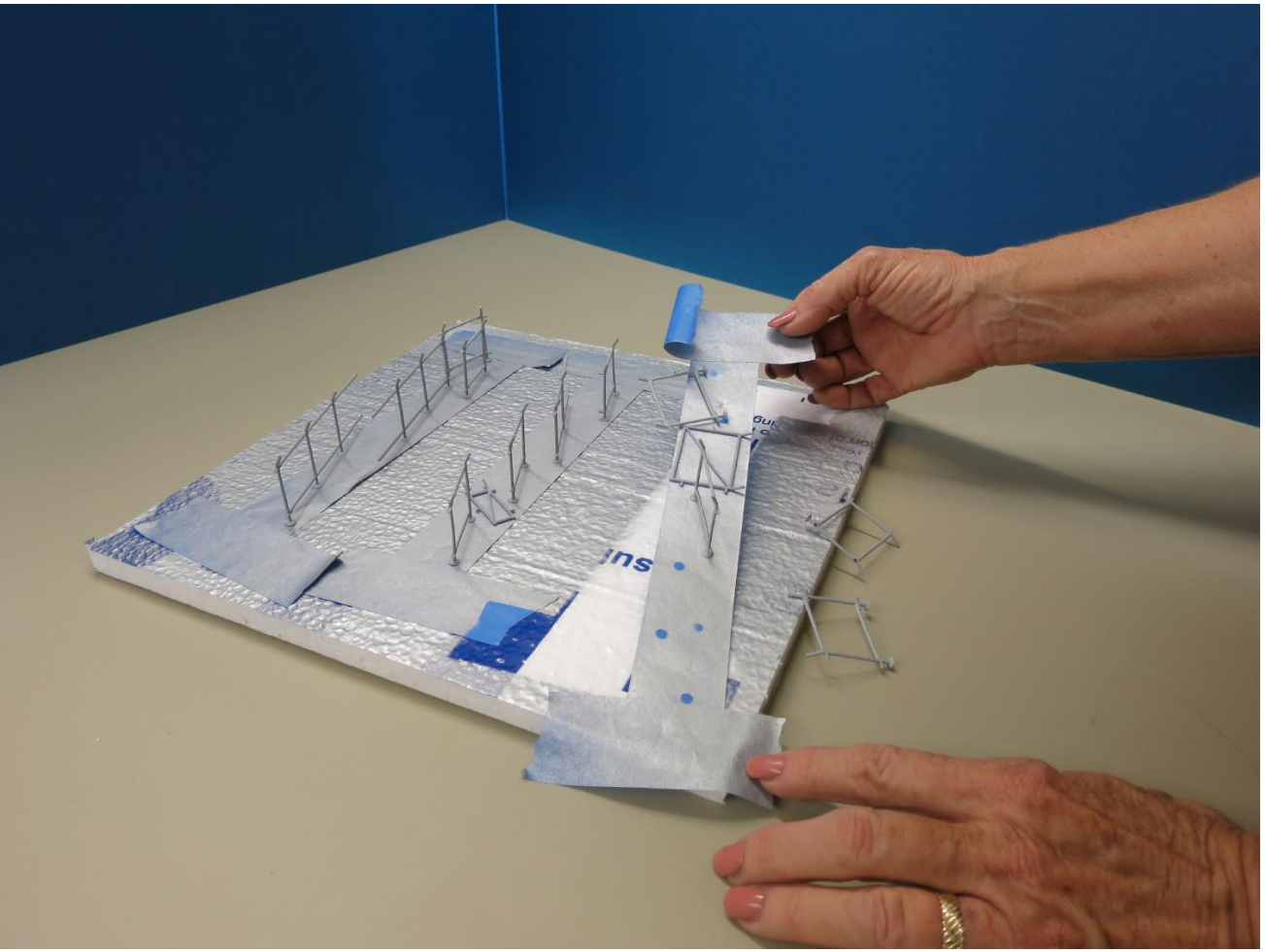
This is my way of painting chain-link fence frames:

- Cut out a couple pieces of ½” 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.
- 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 paint.

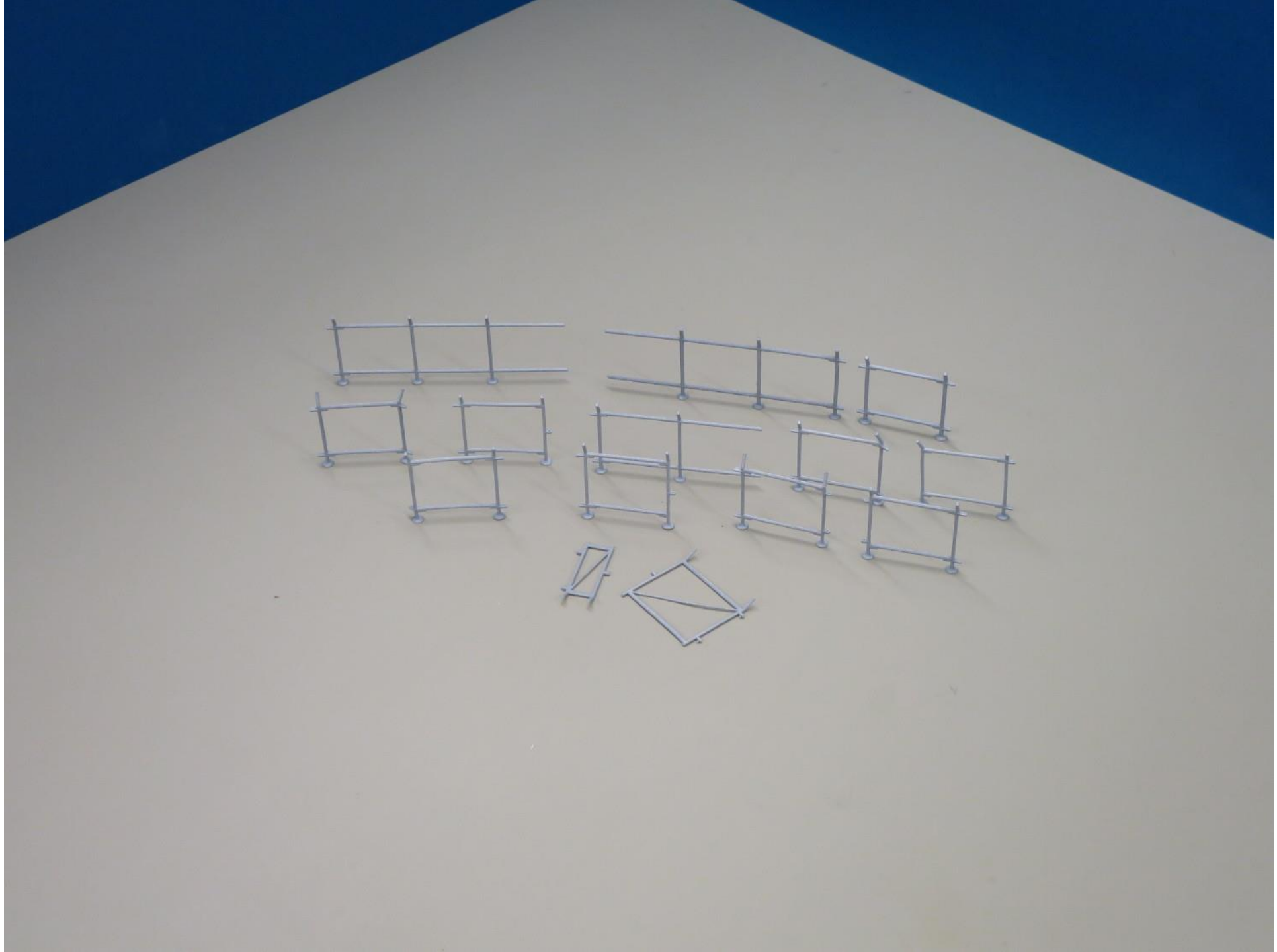


Begin sticking the base of your fence parts onto the blue tape. Be sure to leave some breathing room between each part so one part won't block another part from the paint spray. For those parts like gate section that are without bases, you can stick them flat on the tape or pin them onto the insulation with map pins. If you are painting gate, mask off the hinge parts of the assembly and brush paint them carefully later. You don't want to get paint on the hinge pins or in the hinge holes.

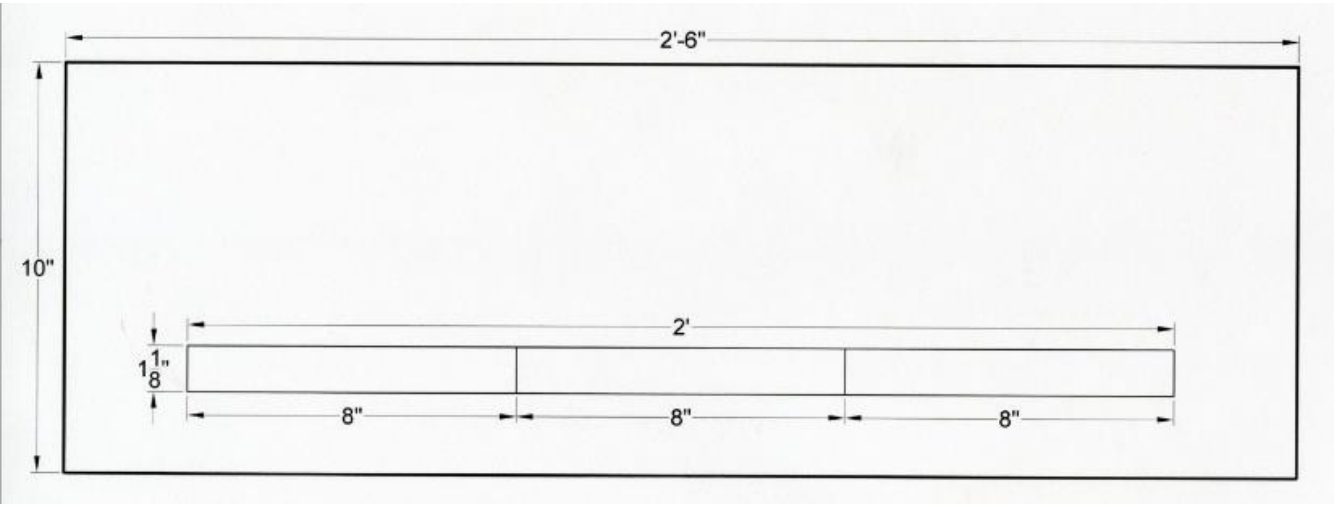
Put a disposable glove on your hand that will be holding your work so you will not accidently paint your hand too. Step outside or wherever you spray paint and give your fence parts a good coat of aluminum colored paint that bonds with plastic. I use Rust-oleum 2x Ultra Cover paint. Set your painted work aside and let it dry 20-30 minutes. Now you can prepare the next piece of insulation and add more fence parts to paint.



To remove your dried fence from the tape, pull off an entire strip of tape with the fencing attached. Carefully peel the tape away from each fence base. Otherwise, there is a chance of breaking off the base. Set the fence parts aside and prepare the insulation for more fence parts to paint as needed. Continue this cycle until all of the fence parts are painted with the aluminum colored paint.



Now that all of your fence parts are painted Aluminum, it’s time to paint the bases. If you don’t want to expose the bases, then paint them a matching color of the medium you will be using as ground cover, such as green turf, brown turf, or gravel. Since chain-link fence posts are buried in the ground with concrete, I choose a flat, acrylic concrete colored paint. Using a small brush and a flat, acrylic paint, carefully paint the bases of all of your fence parts.



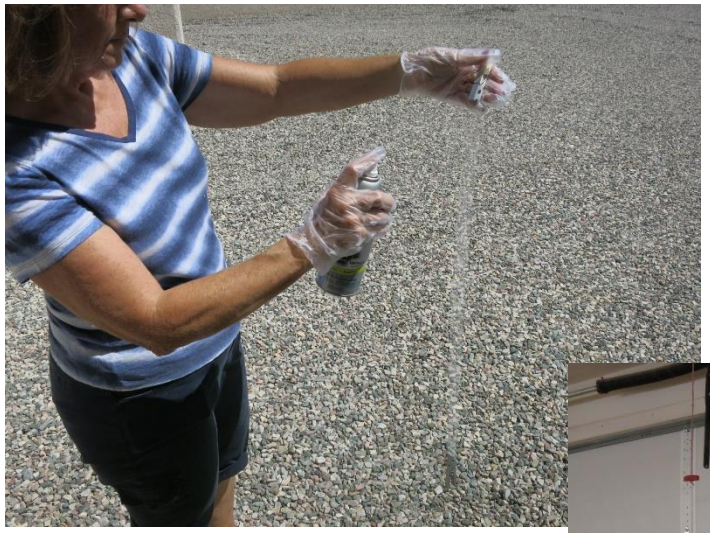
Now that all of the fence parts are painted, it’s time to prepare the chain-link wire mesh.

- Take a piece of scrap wood or MDF about 30” long and draw 2-parrallel lines 24” long x 1 1/8” apart with a straight edge and pencil.

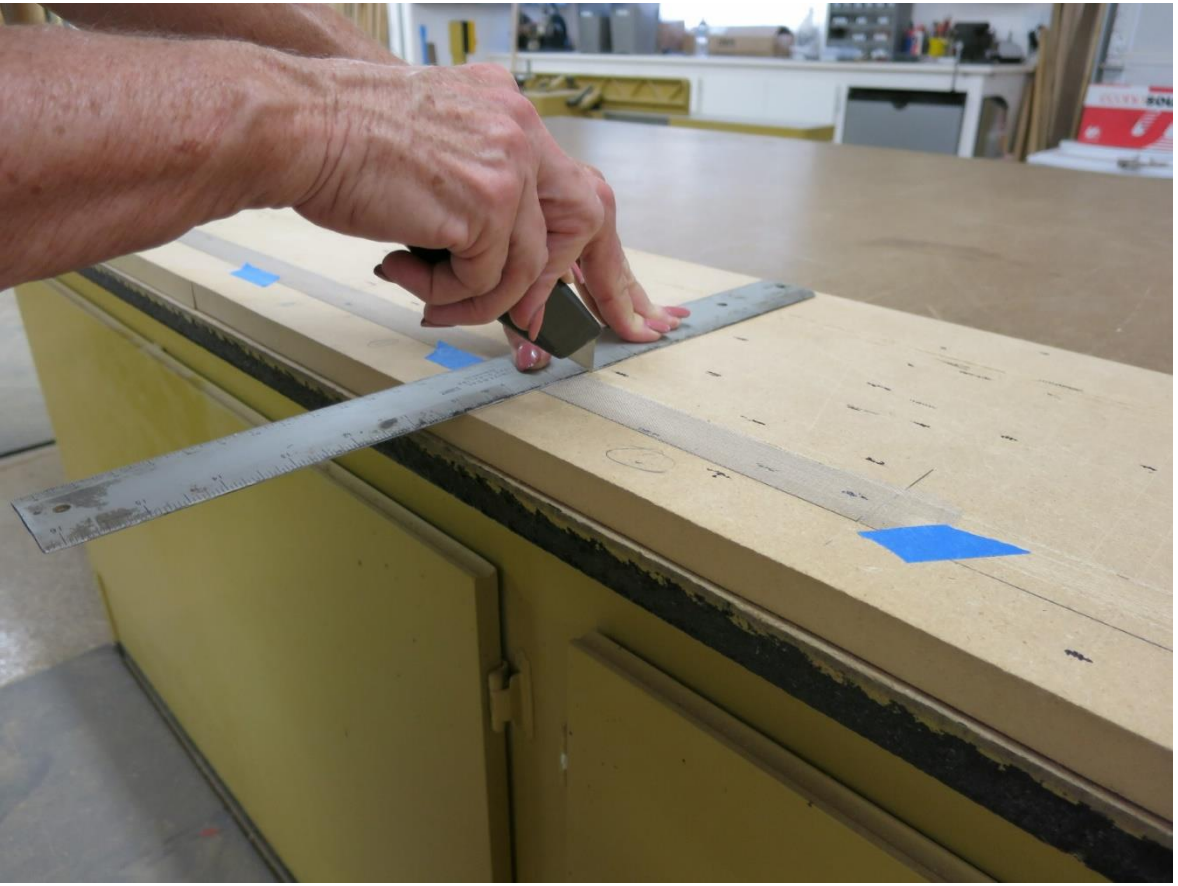
- Start at one end of the parallel lines and draw 3-consecutive rectangles that are 8” long, using the parallel lines as sides.

- Now you have a pattern/template to cut-out your wire mesh.

- Cut-off 26” of tulle ribbon mesh from its spool. Lay a long edge of the mesh along the closest parallel line to you and tape it down with blue painter’s tape.
- Lay a metal straight edge over the rectangles with its edge along the furthest parallel line. Hold the straight edge down firmly and use a **sharp** Utility knife to cut the mesh into a 0.75” wide strip (1.125” wide strips for the 10’ fences). I’m lucky enough to have a work bench that allows me to clamp down my projects (as shown.) You cannot allow the straight edge to move while cutting.
- Inspect the edges for any rough spots and set the strip aside.
- Continue cutting as many mesh strips as possible from this original ribbon piece. You may get 3 or 4 strips from it. Anything less than 1 1/8” wide is scrap.
- Continue this process until you have enough mesh to cover all of your fence pieces. You can always cut more strips as needed.



- Clip a wooden clothes pin to each end of a mesh strip. One pin is a handle and the other pin is a weight
- Put a disposable glove on the hand that will hold the handle pin.
- Step outside or wherever you spray paint. Let the weighted end dangle while spray painting the mesh on both sides with the same aluminum colored paint as the frames.
- Lay the painted mesh, clothes pins and all on a clean, smooth, dry surface to dry. Better yet, hang them up to dry. Cut about 4 sections of utility wire about 2 ft. long. Bend and form one end to go over your garage door overhead frame and bend a small “L” shape on the other end. Pre-drill holes on one side of each handle clothes pins larger than the wire. Then when you have finished painting the strip, you can simply hang them on the “L” shape end of the wire to dry.
- You can repeat this process as often as needed until all of your mesh sections are painted.



- After the mesh sections have dried take one section at a time and remove the clothes pins.
- Place the section back onto your cutting board, aligning the bottom edge of the mesh with the closest parallel line and centered left to right with the 3 rectangles.
- Tape down the mesh as shown with blue painter's tape.
- Use a straight edge and a **sharp** Utility knife to cross cut your mesh into 3 smaller sections using the 3 rectangles you drew earlier.
- Now you should have 3 sections of mesh about the same length, each long enough to cover the longest fence part.
- Repeat this process until you have enough mesh sections to cover all your fence parts.
- Check the edges ragged places. If you find some bad areas, discard the whole section or maybe use it in a shorter section.

In the next presentation, we will put our plan into action and create a realistic looking HO scale chain-link security fence to enhance your layout.

Please Visit My Shop at:

https://www.bobsminiatures.com

OR

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

End of Part-1
Thanks for viewing