

# Pine Tree Clinic 6/22/2024

## Introduction:

Why make trees and not buy them?

- **Cost** – For a low investment in materials and some hobby-time you get many more trees than the same investment in commercial trees
- **Variety** – Commercial trees are limited in the color and types of trees offered ((I developed this technique because I wanted to represent southern yellow pines).
- **Satisfaction / Sense of Accomplishment** – I come from an engineering background and this technique requires no artistic talent. And it can be done with little mess and noise (I do almost all of it while watching TV with my wife; and I don't disturb her or create a mess).

## Tools:

- Wire or Diagonal Cutters
- Small Cup-hook Mounted in a Dowel or Electric Drill
- Needle-nosed Pliers
- Small Paint Brush & Pallet
- Small Sharp Scissors
- Small Shallow bowl
- Medium Sized Sealable Bowl

## Expendable Materials:

- Sisal Twine
- Dark Brown Rit-Dye
- Floral Wire (22g, 24g, & 26g)
- Raw Umber or Burnt Umber Acrylic Craft Paint
- Woodland Scenics Hob-e-Tac Adhesive
- Toothpicks
- Brown Floral Tape
- PVA Glue (e.g. white glue, Elmer's, or Aleene's)
- Course and Fine Green Ground Foam
- Unscented Extra-Hold Hair Spray (e.g. Suave, White Rain, Aqua Net (I prefer the pump bottle over the aerosol)

## Instructions:

### **Pre-color the Twine Brown:**

1. Cut sisal twine into reasonable 10-12 lengths 3' to 5'
2. Prepare a concentrate solution of Rit Dye in a large jar (preferably plastic); approximately 2 tbsp dye to 3 or 4 cups of water (enough to submerge the twine) with a few drops of dish soap to "wet" the water
3. Add twine segments too steep in dye water and set in the sun for several days to warm the dye solution and let the dye permeate the twine, the longer it steeps the darker the color
4. Remove and thoroughly rinse the twine; hang to dry

Note: Not pre-coloring the twine will leave the branches "straw" colored, making it necessary to spray-paint the tree-canopy armature umber before glueing on the ground foam "needles")

### **Prepare the Tree-trunk Armature:**

The larger the wire gauge number (XXg) the smaller the wire diameter. Small trees (1/2" to 2" tall) use the 26g floral wire; medium trees (2" to 4" tall) use the 24g floral wire; large trees (4" and taller) use the 22g floral wire.

5. Cut pieces of floral wire twice as long + 1" of the desired tree height. For example, a 2" (26' in N-scale) tall tree would use a 5" piece of either 24g or 26g floral wire (2" x 2) +1" = 5".

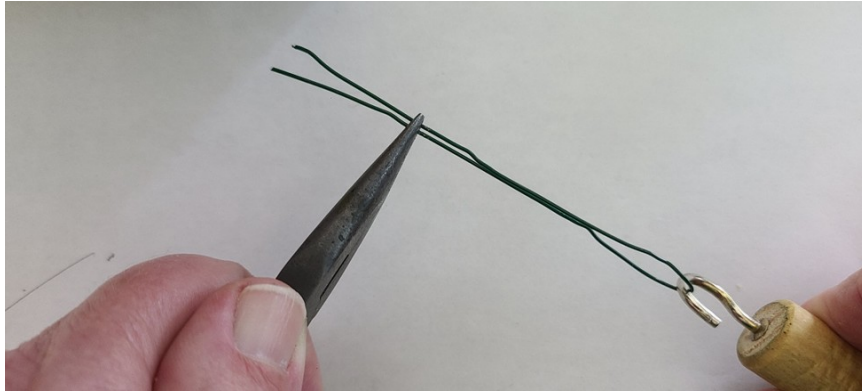
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6. Fold the floral wire in half (the top of the tree will be the 2 ends of the wire, the base at the 180deg bend or loop, **Figure 1**). For example:
- For a 3" tall tree (40' in N-scale) you may want 3/4" of branches, 2 1/2" of visible trunk and 1/4" of trunk to "plant" in the scenery base/terrain, you would use 7" piece of 26g or 24g floral wire
  - For a 7 1/2" tall tree (100' in N-scale) you may want 1 3/4" of branches, 5 3/4" of visible trunk and 1/4" of trunk to "plant", you would use a 16" piece of 22g floral wire
  - For trees shorter than 1" tall use a 3" piece of 26g floral wire.



*Figure 1 - Floral wire folded in half*

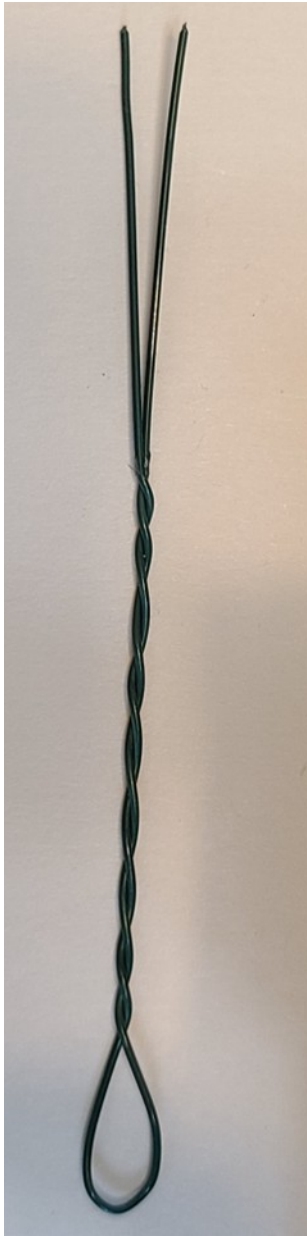
5. With the pliers, pinch at the point you want the bare trunk to stop and the branches to begin. Loop the cup hook through the loop end of the floral wire and turn the cup hook until moderately twisted (**Figure 2**).



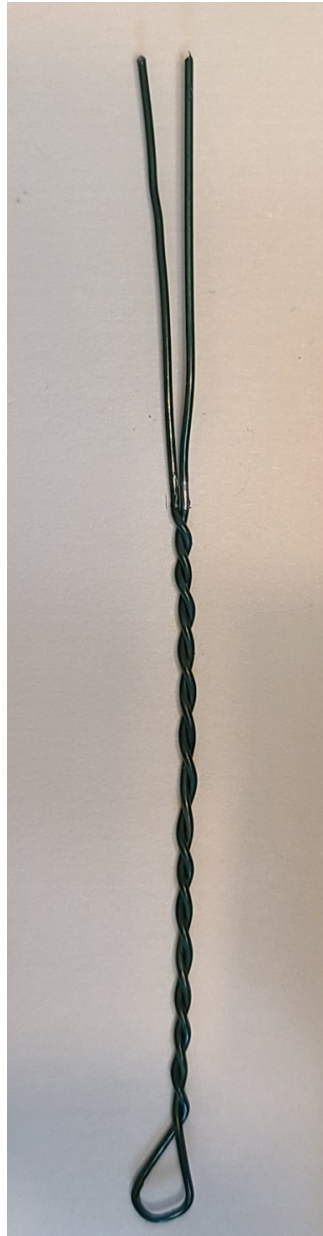
*Figure 2 - Grasp wire where branches to begin and loop cup hook*

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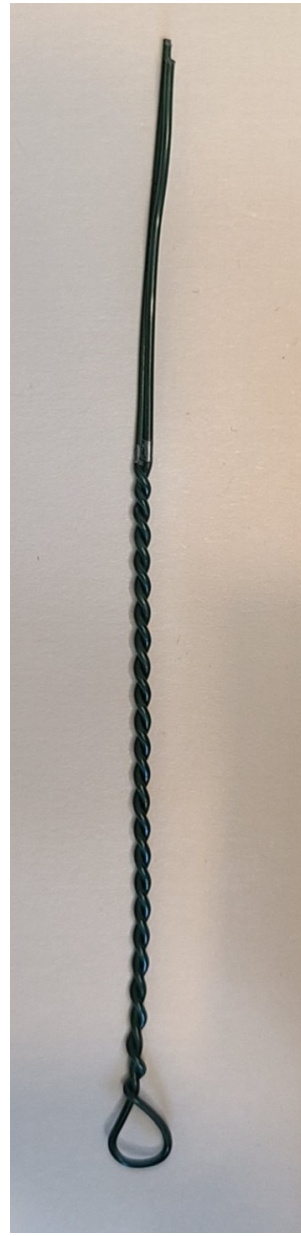
6. Too tight an initial twist could result in the floral wire breaking when fanning the branches; too loose a twist could result in difficulty aligning the Sisal twine to make the branches



*Figure 3 - Too loose*



*Figure 4 - Tight enough*

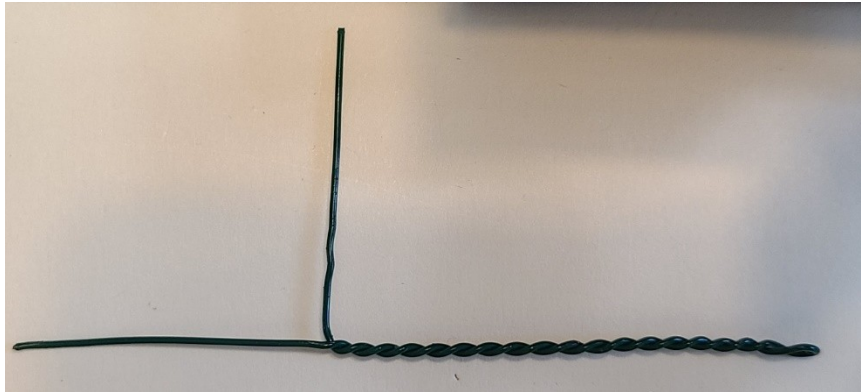


*Figure 5 - Too tight*

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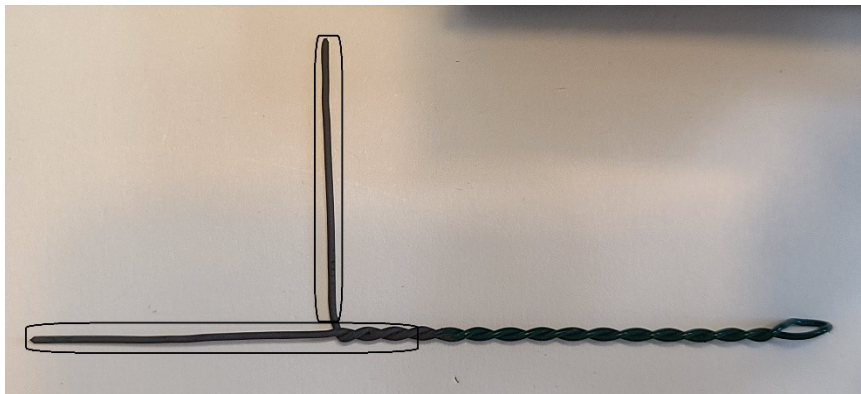
## Prepare the Tree-canopy Armature:

8. Spread the straight floral wire segments, one leg 90° from the other (**Figure 6**)



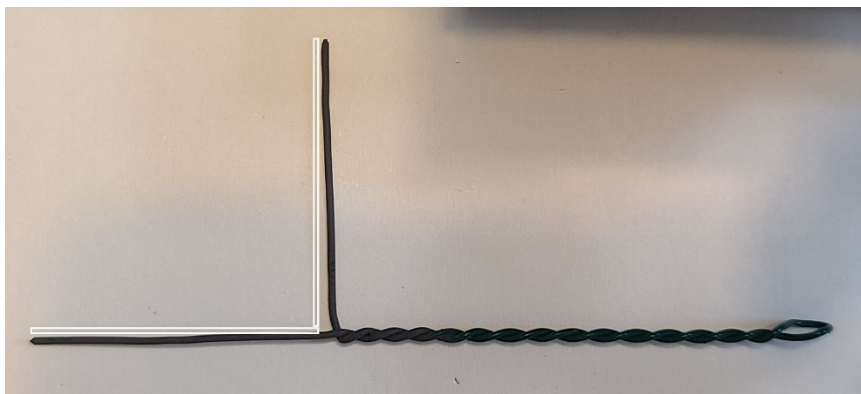
*Figure 6 - Bend one leg 90° from the other*

9. Paint the straight wire segments with the umber acrylic paint (**Figure 7**). Not painting will leave the trunk under the branches bright green, making it necessary to spray-paint the tree-canopy armature umber before glueing on the ground foam “needles”)



*Figure 7 - Pre-paint the straight segments*

10. With a toothpick, smear full strength Hob-e-Tac adhesive along the interior edge of the straight wire segments (**Figure 8**); hang to let cure till clear yet tacky



**Figure 8 - Apply Hob-e-Tac to straight segments**

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11. Cut small bundles of twine and lay across the straight floral wire segment in line with the trunk (see below)



12. Fold the perpendicular straight floral wire segment in line with the trunk and press down into the fibers laid down in Step 11

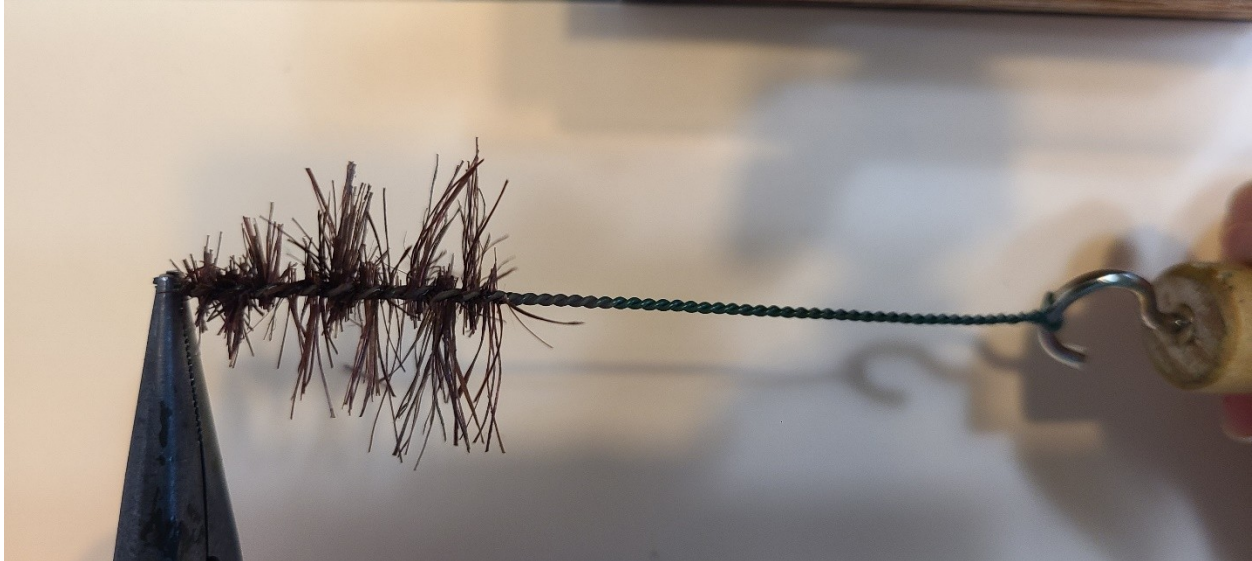
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- Carefully pick up the tree armature and pinch together the ends of the straight floral wire segments with pliers (**Figure 9**); the Hob-e-Tac from Step 10 will keep the twine fibers in place)



*Figure 8 - Fold wire over fibers and grasp with pliers*

- Hook the cup-hook back into the small wire-loop left from Step 7 and continue twisting until the twine fibers spread out and the floral wire appears fully twisted (**Figure 10**; twisting too tightly will result in the wire snapping randomly along the trunk, experience will give you a feel for how much is too much)



*Figure 9 - Fibers spread out into branches*

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## Finish the Trunk:

15. Cut off the small wire-loop from Steps 7 & 14 (If you chose not to pre-color the twine or trunk this is the point to spray-paint the tree-canopy umber)
16. For thinner tree trunks, paint the lower trunk umber
17. For thicker tree trunks, wrap the lower trunk with the brown floral tape
  - a. Cut a strip of brown floral tape long enough to reach from the top of the trunk to the base of the trunk; one end of the strip should be cut at a slight angle
  - b. Tightly wrap the tape down the length of the trunk and twist it tightly past the end; cut off excess



- c. For longer trunks, a taper can be achieved by using multiple staggered and overlapping wraps



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- d. The waxy adhesive on the floral tape can come loose overtime; therefore, sealing the tape with PVA is recommended. A small drop of PVA between the thumb and forefinger can be:
- Smearred around the last ½' of the trunk; hang to let cure till clear and dry
  - smeared & twisted down the full length of the tape covered trunk; hang to let cure till clear and dry



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## Finish the Tree:

18. If necessary, trim the twine fibers into a rough conical shape
19. Prepare a portion of the Hob-e-Tac by thinning with water to the consistency of milk (unused thinned Hob-e-Tac can be stored in an air-tight bottle); pour into a small shallow bowl
20. Dip the ends of the twine fibers into the thinned Hob-e-Tac; hang to let cure till clear yet tacky (3 hours or more; I usually let it cure over-night; should remain tacky until covered in dust)



21. Sprinkle the tacky "branches" with the ground foam
  - Smaller trees get just the fine ground foam, shake off any loose foam
  - Larger trees first get the course foam (shake off loose), then the fine foam (shake off loose)



22. Lock the ground foam to the "branches" with a spray of the max hold hairspray.