

Attaching A Tail Wire for Hairing

This tutorial explains and illustrates the steps to outfit a tail wire for adding hair to Rio Rondo's "ValorHP" resin or other resin-cast horse sculptures.

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Tools You Will Need

- 320 grit sandpaper
- Rio Rondo's Carbide Scrapers or other seam-removing tool
- Rubbing Alcohol, Cotton Pads and Cotton Swabs, Paper Towels
- Small Shallow container to hold rubbing alcohol. (*An empty tuna can works well.*)
- Small Soft Flat paintbrush (filbert or bright) preferably used or worn (*no need to use a good brand-new brush for this*)
- Sculpting Tools/Modeling Stylus*
- Drill motor and 1/4" drill bit
- Capoxio or other sculpting-type 2-part epoxy (*do not use standard liquid 2-part epoxy, as it will be too runny for this procedure.*)
- 18 Gauge Galvanized Wire (or similar), about 2 ft long
- Needlenose Pliers/Cutters
- Cotton String, about a yard
- Duco Cement or similar type glue

*A modeling stylus of almost any type will work fine . . . you can craft your own from a wooden craft stick and carve or sand it down to a tapered pointed shape. Or use a wooden dowel, a sharpened pencil tip, a small pointed stylus. Alternatively, try a piece of wire with one end sanded smooth. Just about anything will work for this that tapers down to a fine blunted/rounded point.

Prep The Seams

Prep the seams of the sculpture, paying particular attention to the hind end area since it's easier to work these seams now than after the tail wire has been attached. Use a scraper to remove any flash or raised material. Follow up with the 320 grit sandpaper to smooth things out nicely.

Wipe the area around the tail hole with alcohol on a cotton pad, to remove any residual mold release from the casting process.

Wrap/pad the ears and head area with toilet paper, to protect the ears as you continue.

Form The Tail

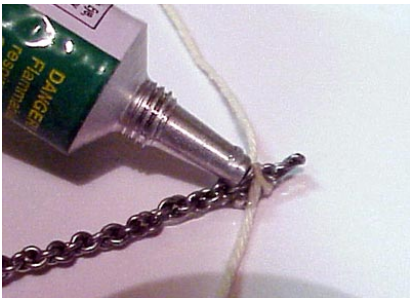
Straighten a 2 foot long piece of wire and fold it approximately in half. Holding the folded end with your pliers, use your fingers to twist the wires together and twist the wires all the way down as close to the end as practical.

Fold this twisted wire in half again, and twist the two previously twisted sections together around each other.

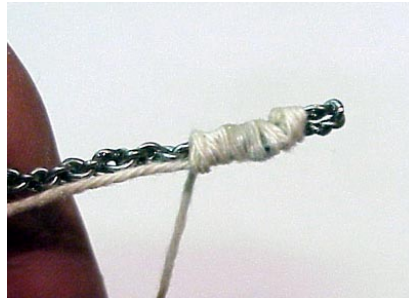
Wrap The Tail

Take a piece of string about a yard long, and tie a half hitch knot near one end of the wire.

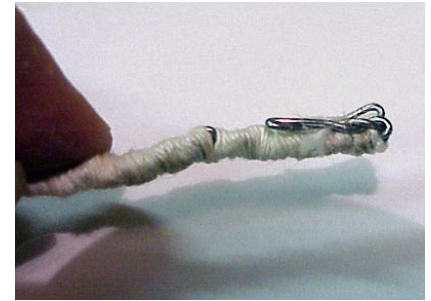




Apply glue along the first 1 inch of wire.



Spiral wrap the string around the wire, wrapping right over the "tail" of the string.



Apply glue as needed as you go. Wrap all the way to the end. Bend the end wires over and crimp them down. Trim any excess string.

Drill Out The Tail Hole

Drill the hole where the tail should be. This area is clearly noted on this particular sculpture.

Hold the drill bit at an angle that is parallel with the top of the horse's croup area. Do not drill straight into the horse horizontally, or the tail may not "set" into position properly. Drill about 1 inch or so deep.



Shape And Position The Tail Wire

Push either end of the tail wire into the tail hole. Using your fingers and/or pliers, bend the tail so that this "tail bone" will come out of the horse's croup at the desired angle. The picture below shows the actual shape of the wire used in this tutorial, to show how things may need to be bent in order to achieve the desired effect.

Note how the tail emerges from the croup slightly lower than the line of the croup. This is what you want to achieve a smooth transition, which will allow some room to apply putty, and then hair.



Mix Putty and Attach the Tail

Pour some alcohol into your container, and have your cotton pads/swabs handy. Make sure your sculpting tool(s) and paintbrush are ready. If you use latex or vinyl gloves to work with epoxy putty, put them on now.

Mix up your 2 part epoxy putty as per directions on the package. Form a small cylinder about 3/4 inch long and a little smaller than about 1/4 inch diameter. Push this cylinder of putty most of the way into the tail hole. If needed, use one of your sculpting tools to push it farther in. The putty should not be packed in tight. If your cylinder of putty is too "fat", work it with your fingers to make it a little skinnier. You want the putty to be wide enough to "catch" a bit as you push it into the tail hole. Too little putty will not result in the secure hold you want.

Smear the putty across the hole, and down in the dock area.



Smear some putty on the area as shown around the top end of the wire. If the putty does not wish to stick immediately, dip your fingers in the alcohol and smooth it on and over the putty to help it adhere. Wipe your fingers with alcohol on a cotton pad to clean off any extra putty.



Insert The Tail and Shape the Putty

With one hand holding the horse and the other hand holding the tail, push tail into tail hole. (The horse can be standing on your work area for this, using one hand to stabilize it.)

Gently, but firmly push the tail in until it is in the proper position coming out of the tailhead area. If there is too much putty around the tail hole and you can't push the tail all the way in, pull the tail out and remove some of the extra putty and try again.

Some of the putty should squish out and around the edge of the tail wire and tail hole. If not, you need to remove the tail, and add a bit more putty into the hole, and insert the wire again.

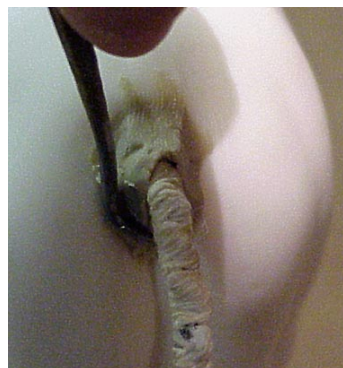
Using a modeling tool, remove excess putty from around the tail bone and shape/smooth it out for a nice "joint". Dampen your modeling tool with alcohol as needed so it will "glide" through and over the putty easier.



Insert the wire.



Extra putty around the hole



Remove excess putty.

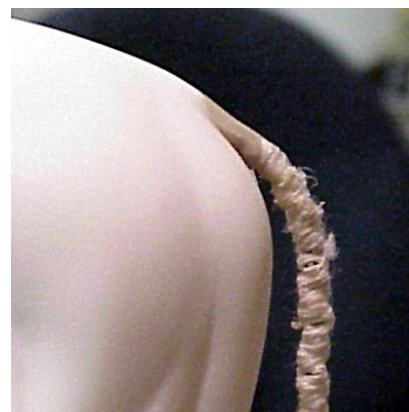
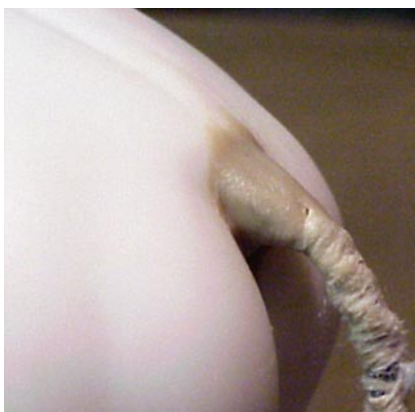


Shape up the area.

Smooth the Putty

Dip your brush in the alcohol, then lightly blot it on a paper towel. Gently stroke the brush around the area (wetting your brush as needed) until the tailhead area has been smoothed out. Don't forget to smooth the area underneath.

Note the slight "dip" or "recessed area" at the top of the tail, and just past the end of the croup. This slight indentation allows for some thickness of hair (and glue) that will be applied later, so that the tail will flow smoothly from the croup when the hair has been added. The amount of dip here should be about $\frac{1}{16}$ inch or slightly less.



Slight recess at top of tail to account for hair.

With a wire tail such as this, you will be able to bend/position the lower half to *some* degree once the putty is completely cured. However, you will *not* be able to raise the tail at the tailhead or bend it from side to side in that area without breaking or cracking the putty. Therefore, you should have the tail shaped and set appropriately as best as you can in advance, rather than trying to extensively reshape the tail wire later.

The advantage of a tail wire such as this (as opposed to a single thicker wire, or even just a long cylinder of putty to serve as a tail) is that the lower half of it will bend should it be knocked in shipping or handling. A single thicker wire may become loose and rotate (or come out) and unreinforced putty can be very fragile and likely to crack if mishandled.

The finished tail wire should be longer than an actual tail bone would be, especially if you wish the hair to extend down to or past the fetlock. This allows for more flexibility to account for varying hair lengths you may be using. If you know you are going to do a particularly short tail, you can easily snip off the excess wire length with cutters. However, **DO NOT trim the wire tail until the putty is COMPLETELY cured.** If the string wants to unravel, simply secure it with some glue.

When you are satisfied with how things look, set the model aside in a warm area and allow it to cure. Cure time is about 1 hour at 75 degrees F . . . add 1 hour of time for each 5 degrees cooler the temperature is.

Once all the putty is completely cured, you should proceed with any additional seam prepping and priming to prepare the horse for painting. Hair should be applied after all painting and color detailing are completed.

Don't forget to clean your tools with alcohol, and be sure to wash your hands thoroughly with soap and water when you are done!

