

Let's Give That Dummy A Hand

Getting the hands right is an important part of building your ventriloquist figure. If you work close up with children, you'll notice that they always hold the figure's hand while they talk to it. Adults notice little things, too, which is why you should make the best, most believable hands possible.

This document describes a procedure for building hands. You start by designing the size and shape of the hand. Then you make a skeletal frame of the hand and flesh it out from there. These hands are sculpted with wood dough, a wonderful material that you can mold like clay when wet and carve and sand like wood when dry. You'll find wood dough at home supply stores in the paint department. Carpenters use it for wood filler and some figure makers use it to build figure heads as well as hands. I use the DAP brand. There are other brands of wood filler, most notably Plastic Wood, but I have not tried them, and, depending on the formula, another product might not work as well as DAP Wood Dough.

Following are lists of things you'll need to build one hand:

Materials

- Thin wire coathanger
- Toilet tissue cardboard tube
- Masking tape
- Styrofoam block packing material
- Small amount of modeling clay
- DAP Wood Dough
- Bowl of water

Paint

- Krylon white sandable spray primer
- Acrylic artist's paint (white, burnt sienna, light cadmium red)
- Clear matte spray sealer

Tools

- Pliers
- Wire cutters
- Armature base and shaft
- Basic clay sculpting tools
- Wood carving knife (Xacto with curved blade works well)
- Scissors for cutting cardboard
- Fine sand paper
- Dremel with barrel sander attachment
- Paint brushes
- Jar with lid for saving mixed paint

Look at your own hands, at the hands of children, and, if possible, at the hands of other ventriloquist figures to see how you want your figure's hands to look. Sometimes it helps to make sketches of hands or draw outlines from a child's hands before beginning to build.

Wire Frame Armature

Begin by building a wire frame armature of the hand. Use a thin wire coathanger.

- Untwist the hook end of the coathanger and straighten it out.
- Trim the ends where the wire was twisted together.
- Bend the wire so it forms a wire frame skeleton of the hand.
- Trim both ends of the wire so the wrist is the desired length.



The size of the wire frame skeleton depends on the size of the finished hand. The wire frame should be slightly smaller overall than the finished hand because you are going to build out from the frame. The spaces between the fingers and the thumb should be wider than in the finished hand.

Observe in the wire frame pictures that the four fingers are shaped on a relative horizontal plane alongside one another with a bit of curve, and the thumb is shaped perpendicular to the fingers. Look at your own hand and see the same spatial relationship, which anthropologists call an "opposing thumb."

Although the wire frame has separate fingers separated by spaces, the finished hand's four fingers will be touching each other. (See the pictures of the finished hand at the end of this document.) This approach makes for a stronger sculpture. The frame's individual fingers define where you sculp the groves between the fingers.

Bulking up the Armature

The wire frame forms the basic shape of the hand, but you need to provide bulk for the hand. By using styrofoam and other lightweight materials for the inside form, you keep the weight of the finished hand down.

- Cut five rectangular lengths of styrofoam, one for each finger and one for the thumb.
- Fit the styrofoam rectangles into the wire frame's fingers.
- Form some styrofoam and build up the fleshy part of the thumb and palm.
- Fasten the styrofoam to the wire frame with masking tape.



Wrist

The wrist on the armature is made from a toilet tissue cardboard tube.

- Trim the tube to the length of the wrist. Make it long enough to attach to the figure's arm and expose some flesh tone wrist when the figure's sleeves ride up.
- Cut a wedge the length of the wrist from the tube.



- Squeeze the tube's ends together so it forms a conical shape. The smaller end is the hand end of the wrist. The larger end is where the hand's wrist attaches to the arm.
- Tape the tube closed by taping around the tube.
- Slide the tube over the wire frame's wrist ends.
- Tape the tube to the hand.



Fleshing Out the Hand

You build the hand by adding wood dough to the bulked-up armature and sculpting the hand's features.

- Mount the armature onto a vertical post. I use a dowel nailed to a flat base. You can also use a screwdriver or any elongated object held vertical in a bench vise.
- Use modeling clay inside the cardboard wrist to hold the armature steadily on the post.



- Put patches of wood dough onto the armature, covering the armature with a thin layer of wood dough.
- Dip your fingers (yours, not the armature's) in a bowl of water to keep them moist as you add patches of wood dough. This keeps the wood dough from sticking to your fingertips and makes it easier to use your fingers to smooth the wood dough as you apply it.
- Roughly sculpt the hand in the wet wood dough by digging grooves between the fingers with your sculpting tools and forming the balled finger tips and thumb tip. Do not build up too much "flesh" in this step. You will flesh out the sculpture incrementally in later steps. It's okay--even preferable--for the thumb and fingers to seem flat when you are done with this step.



- Allow the first layer of wood dough to dry.
- As these relatively large patches dry, the wood dough shrinks and forms ugly wrinkles in the hand's skin. Don't worry about these wrinkles just yet.



Filling, Carving, Finishing and Sanding

- Use the Dremel with drum sander to sand down the high spots on the rough hand.
- Fill the shrinkage spaces with wood dough.
- Build up the fleshy parts of the palm with wood dough.
- Fatten the thumb and fingers with layers of wood dough until they are the proper width.
- Build up any other depressions on the fingers and back of the hand with wood dough.
- Allow the wood dough to dry.
- Use the Dremel with drum sander and the wood carving knife to rough sand and sculpt the final hand shape.
- Fine sand the hand.
- Continue to fill, carve, and sand until the hand is completed.



Fingernails

You can carve fingernails into the final hand after all the wood dough has dried, but there is an easier way.

- Place small patches of wood dough on the ends of the fingers where the fingernails should be.
- Use a knife blade to shape the fingernails and remove excess wood dough.
- Allow the wood dough fingernails to dry.
- Fine sand the fingernails.



Priming and Painting

When the hand is completed you must paint it so it looks real. You begin with a coat of primer so the paint sticks to the wood dough and end with a coat of sealer to protect the finish.

Priming the Hand

- Spray paint the hand with white, sandable primer. I use Krylon brand, which you can purchase at Wal-Mart in the paint department.
- Let the primer coat dry.
- Lightly sand the primer coat.
- Spray a second coat of primer.
- Allow the second coat to dry.
- Lightly sand the second coat of primer.



Mixing the Flesh Tone Paint

Next you mix a blend of flesh tone paint. If you have paint left over from painting the figure's head, use that. Otherwise, follow these mixing procedures.

Use the acrylic artist's paint that comes in bottles, not the kind that comes in tubes. If you must use tubed paint, mix in some thinner until it has the consistency of cream. You want to mix enough paint for two coats on both hands and you want to preserve the mix in a closed jar between uses.

- Mix a small amount of burnt sienna into a large quantity of white in a jar. Continue adding burnt sienna until the paint is the flesh tone you want.

Painting the Hand

- Using a sponge brush or the end bristles of a paint brush, dab, don't stroke, the first coat of flesh tone onto the hand.
- Close the jar of flesh tone paint.
- Let the paint dry.
- Apply the second coat in the same manner.

Painting the Fingernails

- Pour a small amount of flesh tone onto a piece of board or paper.
- Mix small amounts white paint into the poured flesh tone until the mix is right for the fingernails.
- Use a small paintbrush to paint the fingernails.

Highlighting the Hand

- Pour a small amount of flesh tone on the paper or board palette.
- Pour a small amount of light cadmium red nearby.
- Dab some flesh tone on the hand's knuckles.
- Dip a separate brush into the light cadmium red.
- Dab the brush onto the paper until only a trace of red shows.
- Dab the faint red paint onto the wet flesh tone knuckles blending the highlighted tone in. Start in the center and work outward.
- Repeat this procedure for the thumb's fleshy part and anywhere else on the hand you want to highlight.

Sealer

- Spray the hand with a coat of clear matte sealer to protect the hand.
- When the sealer dries, spray a second coat.

