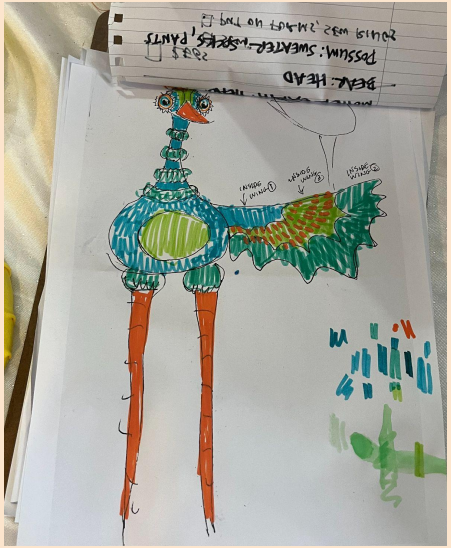
Anne’s Giant Puppet Portfolio / Handbook

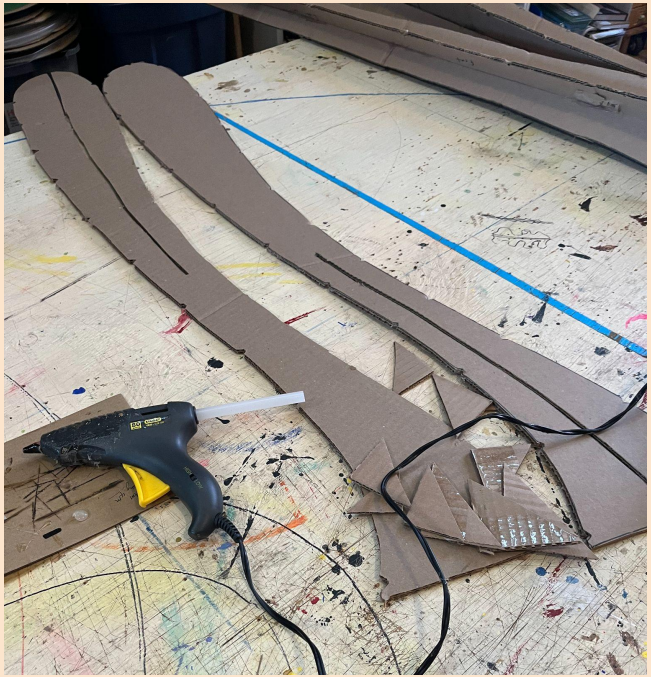


By Sam Smith

Making the Armature Frame pt. 1 (Cardboard)

Cut out pattern pieces of cardboard and their notches (for reed to rest) and hot glue them together with corner braces.

Anne had pre-established patterns. They need to be able to slot into each other halfway to create a 3D frame



*These are the cats arms

Interlude: Soaking Reeds

Fill a large bin with water, and soak reeds (we submerged them at the end of the day and let them soak overnight). A bucket can help weigh down the reeds from floating, just fill it with some of the water.

Once soaked, the reeds will be pliable (more pliable the longer they soak) and easier to trim (use wire cutters)

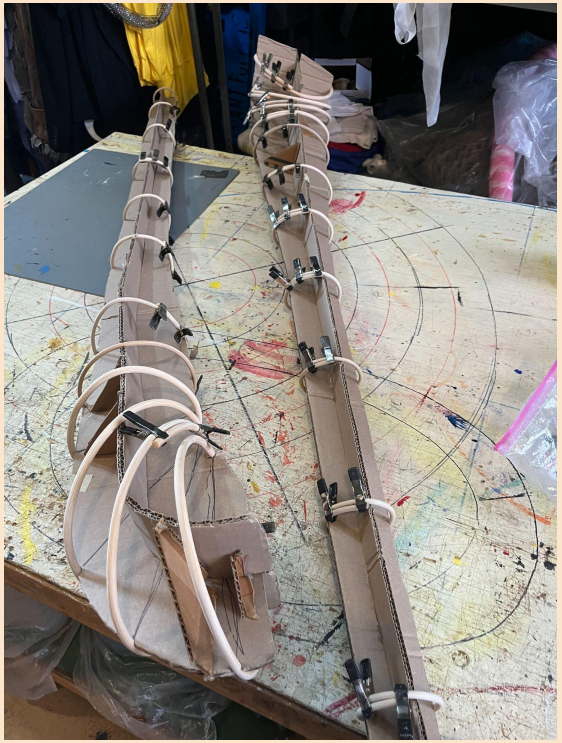
*Reed is used because its lightweight and also sturdy when dry

**Using a photo from online since I didn't take one. Should look like this, but it's recommend to weigh them down and use round reed*

Making the Armature Frame pt. 2 (Reeds)

Wrap the notches in the cardboard with soaked reeds (need a couple inches overlap). Clamp overlapping ends to dry, use a marker to mark the center of the overlap.

Once dried you can remove the clamps from one row at a time, while trimming the overlapping reed to have ~1 inch on each side of your mark, for smoother finish, cut the ends angled like in picture. Then cut a length of heat shrink tube thats a bit longer than the overlapping section. Slide that onto the reed and then superglue the reed ends together. Slide the tube back over the overlap and use a heat gun to shrink it.



**These are the cats legs*

Note about the Body Armature

Not pictured in detail: Body framing will get string that is tied and superglued to each row of reeds which is connected to a wooden plate at the top.

**The reeds used for the body are a thicker than the ones used for limbs*

**The row that limbs are attached to is made of sharkbite PEX*

Draping & Patterning Fabric for Armature

Drape stretch fabric over ¼ of the frame, mark with marker then cut out 4 using the marked piece as a pattern. Sew together with zigzag, add darts if needed.

Attaching Limb ‘Skin’ to Frames

Sew a running stitch around the reed circle w/ heavy duty thread. Pull thread ends tight and double knot, super glue knot and trim

Attaching Body ‘Skin’ to Frame

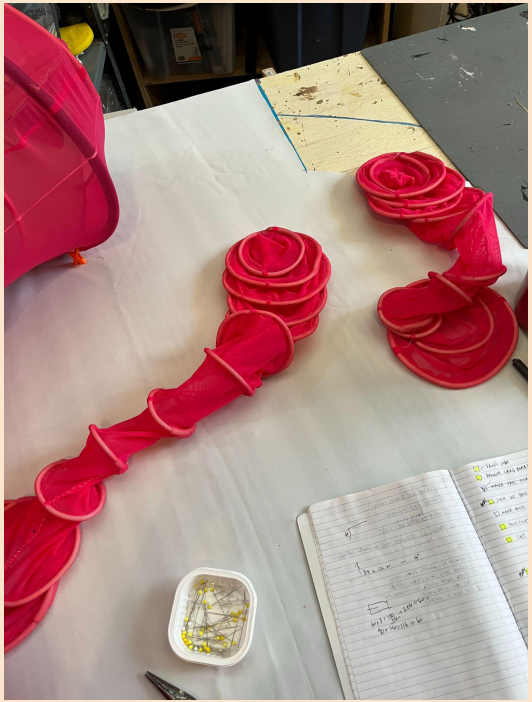
Using a tag gun, attach the strings running down the reeds to the fabric about every inch. No need to sew the reeds the way we did for limbs!

Remove Cardboard Frame

Now for the most satisfying step!

Remove the cardboard from inside the fabric and reed, this might take some force if the pattern has any undercuts.

**The pieces will have to be hung if you need to do more work on them, sometimes it's easier to attach details while cardboard is still inside*

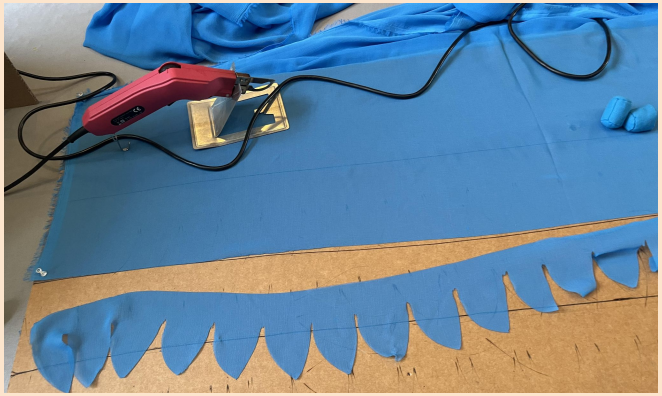


**Long limbs might require making them in two parts and then hand sewing them together later*

Making Fringe Fur and Feathers

Attach fabric to cardboard using push pins. Using a hot knife (so fabric doesn't fray and to speed up cutting), cut strips, then cut out the shapes you want. i.e. feather shapes for bird and fringe fur for cat.

**Fabric will only not fray if it is synthetic*



Attaching Details

Using a tag gun, attach fabric to the ‘skin’, make sure detail strips are not pulled so taught that they don’t have movement.

For mapping details use a marker and mark your fabric where you want different colors. These will get hidden.

The limbs will be more challenging, just trust the process!

**Note how the bird’s cardboard remained in the body while the cat’s didn’t. It's up to you!*

Claws and Feet Straps

Create a pattern piece and cut out upholstery foam. Using the same piece, cut out stretchy fabric and sew. (Remember to flip pattern piece for left and right)

Stuff the feet with the foam. Then sew running stitches and cinch to create knuckle effect. Cut out nails and whip stitch them on.

To add foot straps, sew the foot with whip stitches to the elastic straps with velcro in the back (making sure the scratchy side isn't the side facing the puppeteers ankle). Then sew the leg onto the the top edge of the foot. Sew the strap onto the top edge of the foot so it encases the leg stitches

**Remember to superglue your knots*

Attaching Limbs to Body

The limbs are attached to the body with buckles that are sewn onto the limbs. The other side of the buckle is attached to the sharkbite PEX for the arms and for the legs there is a mechanism attached to the inside where they clip in. This allows for more movement and easier storage.

Making the Head

The head framing is the most complicated armature to make. The reeds are held together with heat shrink tubing and also zip ties.

Eyes and paws are carved from high density foam. While the snout/beak and ears are carved from upholstery foam. All the foam is covered with fabric and the details are painted on.

The cat head is attached to PVC on a hinge mechanic that slots into the backpack, it needs to balance in a way where it can bounce and move. This can take some trial and error

**Anne took the lead with the heads so I don't have fully pictures and details*

Bird Neck Attachment

The birds neck (attached to head) follows a process similar to limbs but has a bendy PVC pipe to allow movement. This is attached with a notch system that twists into place and connects to the backpack. To create a pleasant seam at the base, create feathers than can button onto the body.

**Anne took the lead with the mechanics so I don't have fully pictures and details*