



Bustle spreader and support stems are beaded, but can be wrapped, painted or finished in any other method desired. The beaded center is typically around 5" in diameter but can vary depending upon the size of the bustle.



Cut a 5" and 4 $\frac{1}{4}$ " circles out of $\frac{1}{2}$ " thick wood. Sand down the sides of the larger circle to approximately a 45-degree angle, as depicted in image below. Glue the two circles together.







Center and glue or caulk the beaded bustle spreader onto the 5" circle.



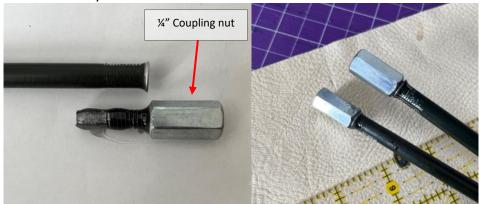
The bustle support stems are made from 3/16" steel rods. The rods are generally easy to find at most hardware stores, in 3 foot lengths. The bustle support tubes are made from 5/16" straight, automotive brake lines, cut to 10" and then flared at both ends. Be sure to remove any burrs created in the flaring process with a file.



Cut the heads off of 2, $\frac{1}{4}$ " x 2" bolts that thread into $\frac{1}{4}$ " coupling nuts. Screw about $\frac{1}{2}$ of the bolt with epoxy applied to the threads, into the coupling nut and let epoxy dry.



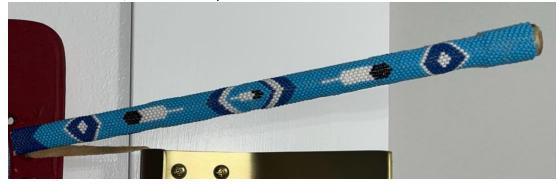
Apply epoxy to the cut end of the $\frac{1}{4}$ " bolt and insert the other half of the bolt into the $\frac{5}{16}$ " brake line and allow to dry.



Glue leather around the bustle support tubes (brake lines) to prepare for beading.



Peyote-stitch each tube, with desired pattern.



Carefully drill out the center of the eagle's legs, once they have thoroughly dried into the desired position, with a drill, slightly larger than the $\frac{1}{2}$ ". Insert epoxy into the the holes and the course threaded ends of $\frac{1}{2}$ " hanger bolts (same thread as the coupling nuts previously mentioned).

Epoxy over the cut off portion of the legs, as seen below. Use ¼" rubber washers between the eagle's legs and the coupling nuts that has been epoxied onto the end of the bustle support tubes.



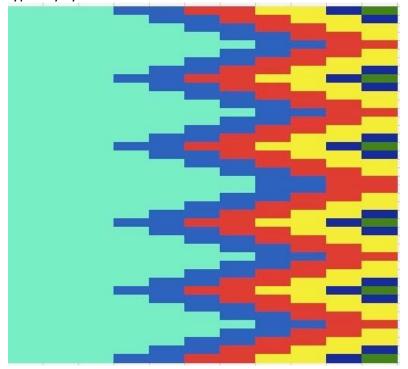




Layout your bustle's feathers to determine how many wood stems you will need to wrap with yarn or tape and to ensure that the bustle will be balanced on each side with the matching feathers. There is no set requirement for the number of feathers in a bustle, but on average, there are around 44 (22 on each side). Number two sets of masking tape tabs, 1-22, to affix to the feathers, to keep them in order.



Determine the pattern for the bustle's design. Microsoft Excel allows you paint cells/columns and play with colors to help determine the desired pattern. Various patterns and designs can be made, but are typically symmetrical in the bustle.



Cut the number of dowels needed to affix each feather to, to the desired length. Typcially the dowels would be between 7-10 inches in lenth. The dowels will need be strong and able to fit inside the end of the bustle's feathers. For feathers with a thinner quill, the dowels may need to be thinned down. Mark out the dowels with a pencil or pen, for the desired pattern on them.



Cut segments of strong zip ties to approximately 3" in length, for each dowel. Fold them in half and apply glue and wrap each zip tie segment with a light thread, to the end of each dowel and allow glue to dry. Be sure to leave a zip tie loop at the end of each dowel to allow the dowels to be laced together, toward the end of the bustle's assembly.

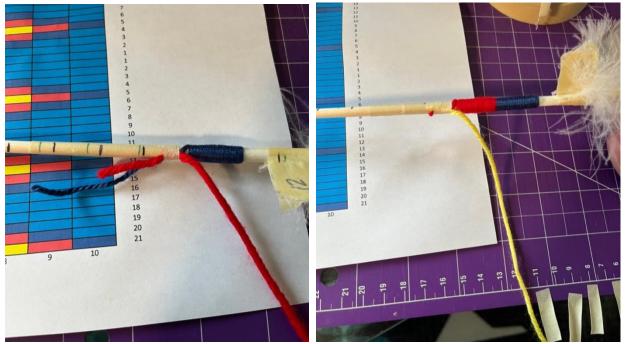




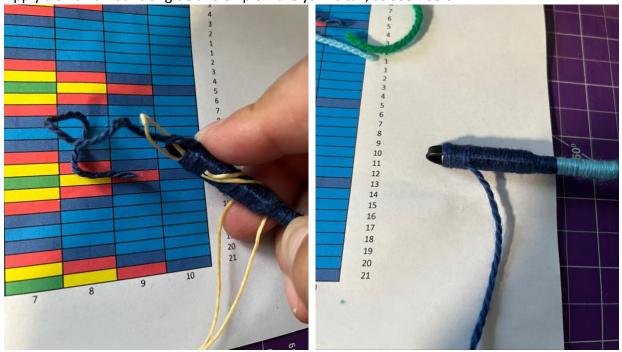
Trim off the end of the feather's quill tip and affix them to the wood stems using masking tape, being careful not to build up too much thickness of masking tape. For the larger diameter quills, masking tape may be added to the wood stems to make them thicker. Quills should fit smoothly over the wooden stems. To ensure uniformity of the bustle, be sure to affix the feathers at the same point on each dowel.



Wrap yarn tightly around the bustle's wood stems. Use small pieces of masking tape to hold the ends of the yarn down and apply the next segment of yarn over the top of the previous section.



Wrap the yarn patter over the zip tie at the end of the stem. It may be useful to create a loop of sinew a few inches in length and wrap the yarn over the sinew loop, to the end of the stem. This is useful to pull the end of the yarn back through the wrapped section, to finish it off. Apply a small amount of glue and snip off the yarn's tail, as seen below.



Just above the end of each dowl, use a thin awl or nail, heated with a torch, to burn holes through the sides of the feather, just large enough to fit a needle and sinew through.



Assemble the bustle in order of the numbered feathers, for example stems 1-12 and 12-1 (left and right sides of the bustle), onto a shoe lace, through the segments of zip ties attached the end of the stems.

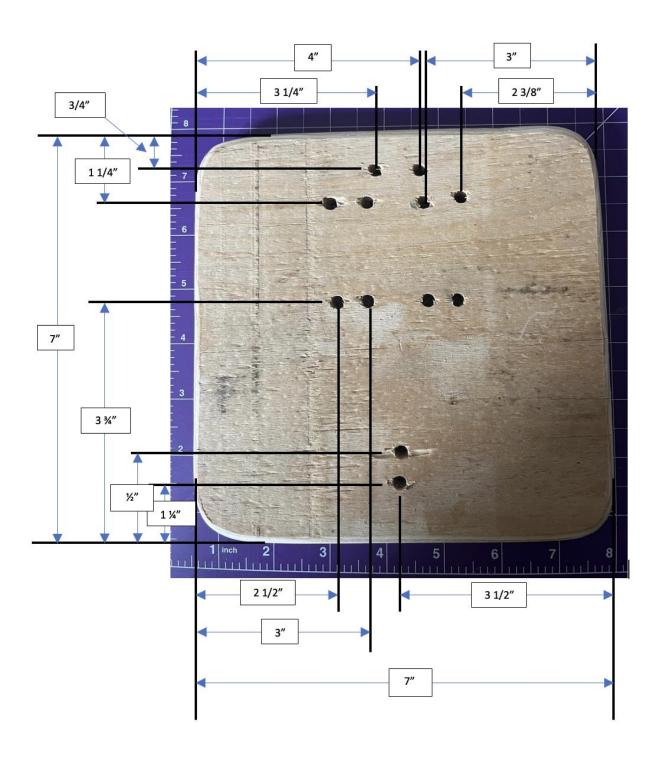


Using heavy sinew, lace up the feathers, appropriately spaced with beads. The number of beads may vary, depending upon the feather spacing desired. Pony beads or other similar size beads are commonly used. Various methods can be used to tie off the sinew on the bustle's support arms, but leather is simple and able to be untied for transport or storage.





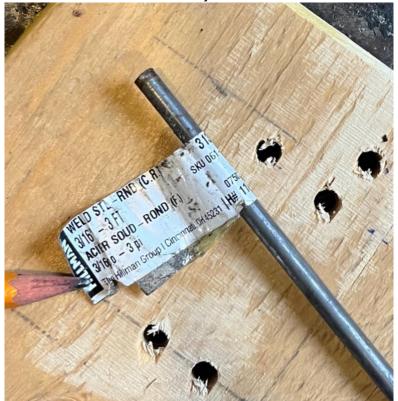
Cut the bustle's backer board out of $\frac{1}{2}$ " plywood or similar material, which will be able to support the weight of the bustle while dancing. The backer should be approximately 7" x 7". Drill holes approximately 3/16" diameter, as shown below. The drilled holes on both sides of the backer, should be rounded out. Paint the backer board.

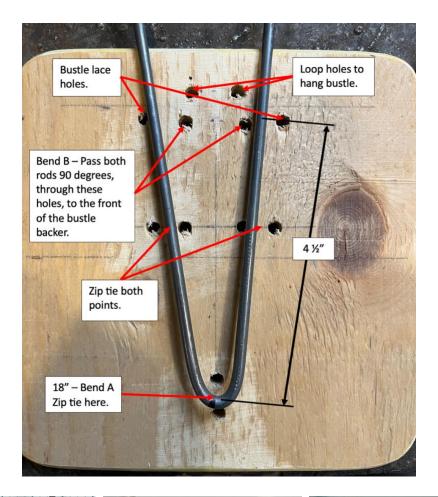


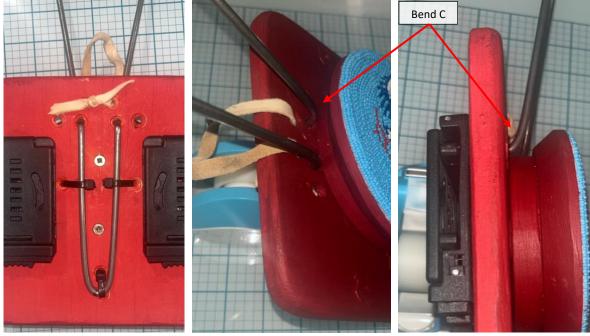
Use a 3/16" diameter x 3' steel rod as the support for the bustle. The rod should be readily available at most hardware stores. 1st-Bend the rod into a V shape, at the halfway mark, approximately 18" on either side of (Bend A). 2nd -At 4 ½" above Bend A, bend both of the rods 90 degrees, perpendicular to Bend A. These bends will be referred to as (Bend B) and will allow the rods to pass through the back of the backer board. Zip tie the rod at Bend A and at the next holes above Bend A to the back of the backer board.

On the front of the backer board, with the ends of the rod sticking nearly straight out through the wood at Bend B, bend them once again, almost 90 degrees, to the top of the backer board, creating (**Bend C**). It can be beneficial to bend the 3/16" rod- inside of a pipe, to ensure that the rod only bends at the desired points. Once the rods pass through the board and **Bend C** is complete on the front of the bustle backer, cut the extending rods to approximately 8" and file the ends over/smooth to remove any sharp edges.

Prior to affixing any zip ties, create small grooves in the wood, on the front of the backer board, so that the zip ties do not stick up above the wood, to allow the bustle's spreader to sit flat on the backer board. Screw the bustle's spreader from the back, to the front of the backer board, once it is centered on the front of the board and just below Bend C of the metal rod.







Add the beaded support arms to the rods on the front of the bustle and bend the rods to the desired shape.



Affix the bustle's stems (already on a shoe lace), through the front of the backer board's two holes, on the outside of where the metal rods go through the backer board and tightly tie the lace in place, at the back.

Various methods can be used to attach the bustle to a belt. In the images below, tactical belt clips (Amazon) were affixed to the back board, using screws and T-nuts.





A bustle trailer or apron can be added at the bottom of the bustle backer board. Many people display their bustles in their homes, being mindful to look after them appropriately and carefully keep them dusted off.

One of the safest methods of transporting the bustle is inside of a hard cardboard tube, typically used as a concrete form, with caps on the end. Cut the tube to the appropriate length, based on the longest feather/stem on your bustle and add a couple of inches, to be safe. After disassembling the bustle, roll up laced feathers/stems and insert them in the tube. Keep in mind to always transport the bustle the, base down, to ensure that the feathers are not damaged.





Regalia should be a representation of yourself / your family / your clan and your community. Colors, patterns, shapes, etc. are passed down through the generations and come through ceremony. Never copy anyone else's work.