

# HOW TO MAKE LEATHER EXTENDERS

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# MATERIALS NEEDED:

- Leather, cutting board, 6-gauge hole puncher, leather scissors, leather cutter or X-ACTO Knife, pliers (needle nose are preferable), metal ruler, pen or pencil, and jess grease.





## STEP 1: CUTTING YOUR LEATHER STRIP

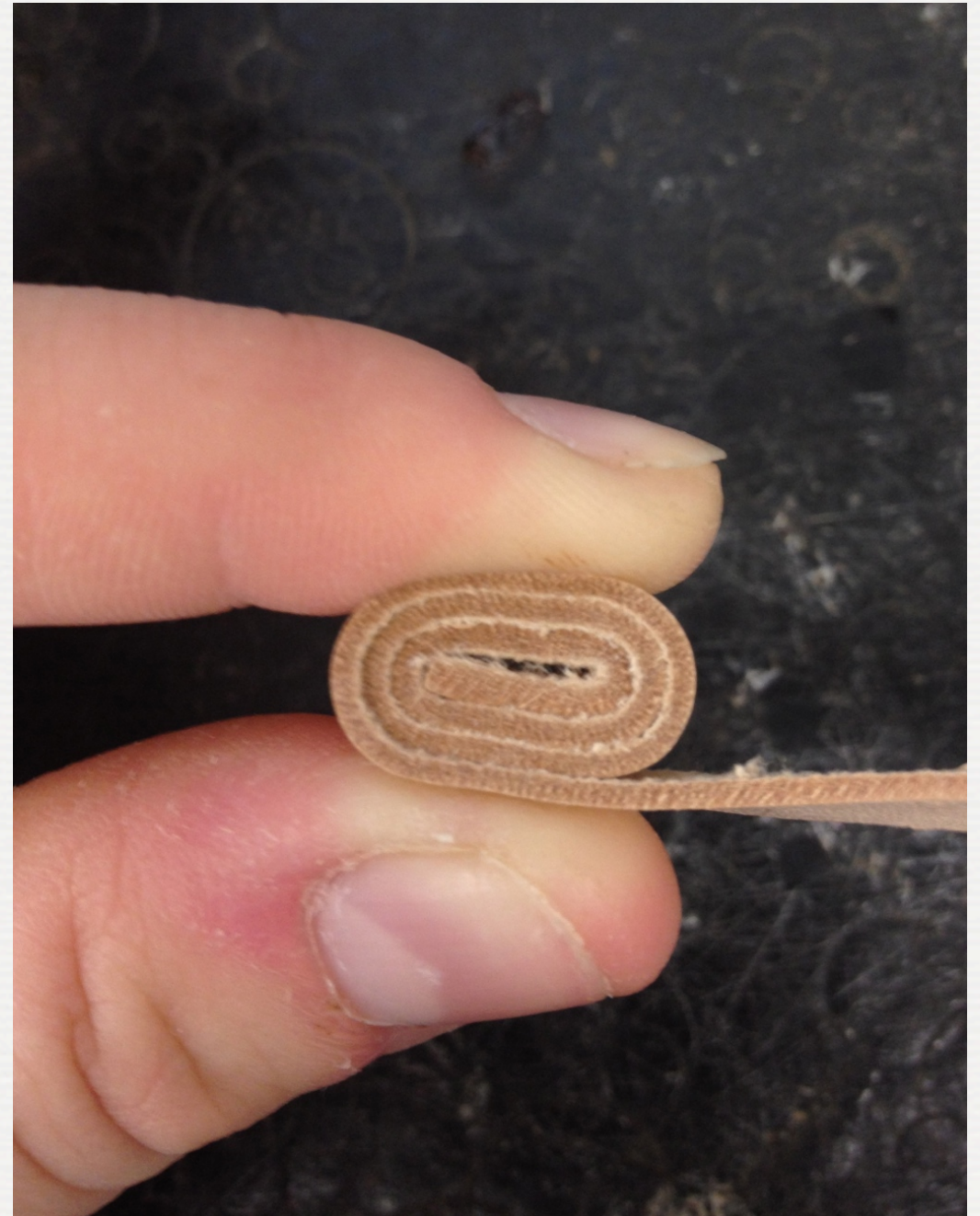
- Lay your leather hide flat on the cutting board. Using the ruler and a pen or pencil, mark a strip of leather at a width of 1/2 inch. Mark this width in multiple places along the flat edge of the leather hide (your strip will be the entire length of the hide).
- Using the leather cutter or X-ACTO Knife, cut the strip along your marks the entire length of the hide trying to keep the width as uniform as possible. Use the metal ruler as a flat edge to connect your marks if it helps.
- Important considerations : Making your strip as long as possible will allow you to use your leftovers for other equipment you need later on. Only cutting what you need causes uneven edges in the hide and eventual waste of leather. Be careful to make precise cuts that do not slice into the leather strip. This section will become waste if the integrity is damaged or becomes too thin. Also note that certain sections of the hide should be cut at a different orientation to prevent the leather from stretching unevenly. Consult the leather guide that shows you the recommended orientation that will allow you to maximize the use of your entire hide.





# STEP 2: MAKING THE BUTTON

- Roll one end of the leather strip to make a tight round knot, or button, about 1/2 of an inch wide and four layers thick from the center of the knot out. This will be the end that connects to the jesses so make sure it is wide enough that it won't slip through the jess slits. It should have a tight round shape overall so it will be less likely to get caught on anything while the bird is wearing it (leashes, browse, perches, etc).





# STEP 3: PUNCHING THE HOLE

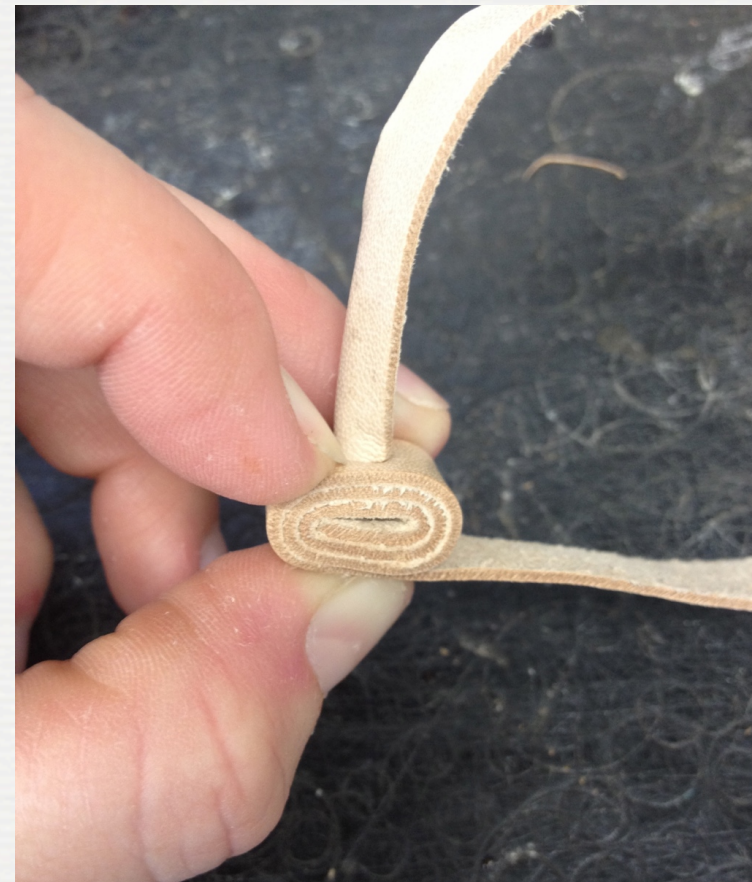
- Using the hole puncher on a gauge size 2, cut a hole in the center of your button. It should be cutting through seven layers of leather (the eighth layer will be pulled through the hole).
- Note: If you are having difficulty with the next step of pulling the strip through the hole, you may use the larger gauge size 1 to cut your hole. I have found that the gauge size 2 prevents the button from loosening and holds it better in place than the larger size.





# STEP 4: FINISHING THE BUTTON

- While holding the button together in one hand, trim the strip down to roughly what you will need to finish the extender -- about 6.5 inches if your finished extender is 4.5 in. This should still leave a bit extra to trim your extender down after the knot is tightened so this cut does not have to be exact.
- Cut a triangle tip on this end. Again this can be a rough cut as it will be trimmed down later on. This tip will help you to slip it through the button hole.
- Take the triangle tip and insert it into the button hole. Pull it all the way through until the knot is tight (pliers can be used to help pull the tip through). At this point the button should be eight layers thick.





# STEP 5: SIZING THE EXTENDER

- Measure out the length that you will need for your extender and trim it back down to a flat edge. Most of our free-flying raptors have an extender length of 4.5 inches (some of the larger hawks and eagles will have longer). Note that the length starts at the base of the knot; this is where it will be connected to the jesses.
- After the extender is trimmed down, cut a triangle tip 1/2 inch long. To maintain symmetry, I find it easier to make the three marks of the triangle with a pen, connect the marks with the ruler to make a flat edge, and use the X-ACTO Knife to make the two precise cuts. (Note: In the photo, dotted lines are added as a visual aid for where the cuts will be made. It is not necessary to draw these in to make your cuts.)





# STEP 6: CUTTING THE SLIT

- Measure 1/4 inch from the base of the triangle tip and mark this spot in the center of the extender. Measure and mark a spot 1 inch further down in the center. The space between your two marks will be the slit of your extender.
- Using the hole puncher on the smallest gauge size (size 6), punch a hole on your marks. Then cut a straight line between the two holes using the X-ACTO Knife (the ruler can be used as a flat edge to make the line straight). Your finished slit will be 1 inch long and 1/4 inch away from the bottom of the triangle tip.





# STEP 7: GREASING THE EXTENDER

- Once the extender is completed, the last step is to treat it with jess grease. Heat the entire container of grease in the microwave until melted. Do not put it in any longer than it needs to melt or you could burn yourself AND ruin the leather! The length of microwave time depends on how full the container is, so start with 30 seconds and check it after every 30 second interval until it has just melted. Dip the extender directly into the melted grease and wipe off the excess back into the container. Again, be careful not to burn yourself!
- Your leather extender is complete and ready to be put on your raptor. Remember to check the integrity of the extender daily for tears, excessive stretching, etc, and replace them as often as needed.

