

# Myaamia Mahkinsina

## Step-by-Step Instructions

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# Step-by-Step Instructions on Making Mahkisina

## SUPPLIES

Printer Paper  
Heavy Paper (brown grocery sack)  
String  
Pencil, pen and permanent market  
Sharp Scissors  
Masking Tape  
Ruler  
Compass  
Protractor  
Mallet  
Towel  
Leather Hide  
Glover Needles  
Sinew  
Beeswax (optional)  
Seam Ripper

## RESOURCES

Below is a list of resources we used for several of the supplies above:

Leather

<https://www.crazycrow.com/buckskin-leather/german-tanned-buckskin-natural-14-22-sf>

Glover Needles

<https://www.crazycrow.com/mm5/merchant.mvc?Screen=SRCH>

Sinew

<https://www.crazycrow.com/mm5/merchant.mvc?Screen=SRCH>

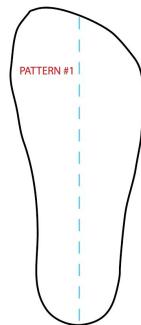
# INSTRUCTIONS

## Measuring Your Foot

1. Trace the outline of your foot onto a piece of printer paper. Be sure to be standing while tracing your foot and keep your pencil straight up and down. If this is difficult for you to maneuver, ask someone to trace it for you. Cut out the shape.



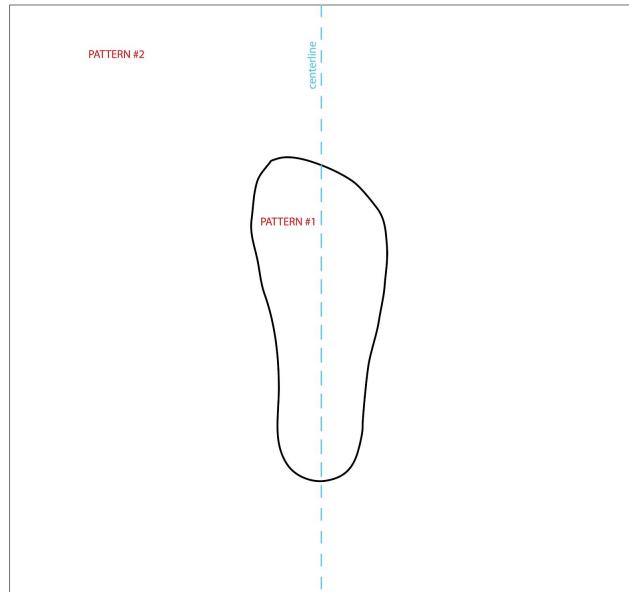
2. Fold the cut out foot in half lengthwise and crease making a centerline fold. Label as Pattern #1.



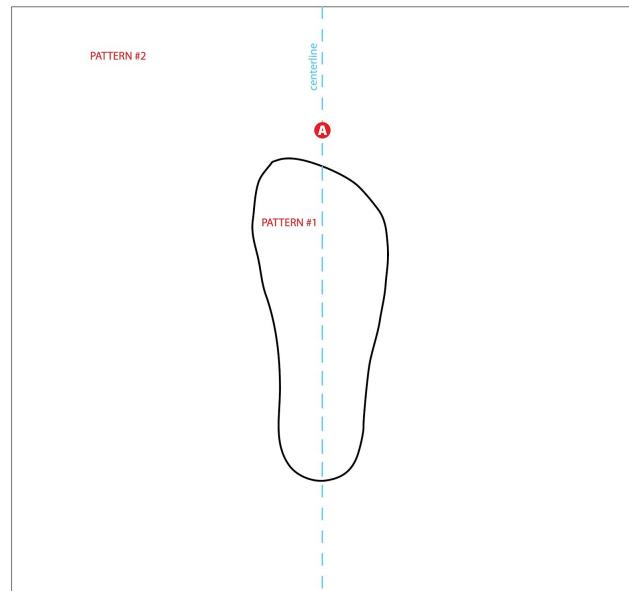
3. While standing, measure the circumference of your foot at the instep with the string. Take a piece of string (one that will not stretch) and wrap it around the instep of your foot. Make sure the final string measurement is exactly the circumference of your foot; be sure to cut off any extra string. This string needs to fit around the thickest part of your foot, which may be the ball of the foot and not the instep. Check it by wrapping the string around various places on your foot, and if needed, replace it with a longer piece. Fold a piece of masking tape around the string and label it '1'.
4. Take a second string and wrap it around the bottom of your heel going to just below your ankle bones on each side. Fold a piece of masking tape around the string and label it '2'.
5. With a third string, measure from just below your ankle to the floor. Fold a piece of masking tape around the string and label it '3'.

## Making the Pattern

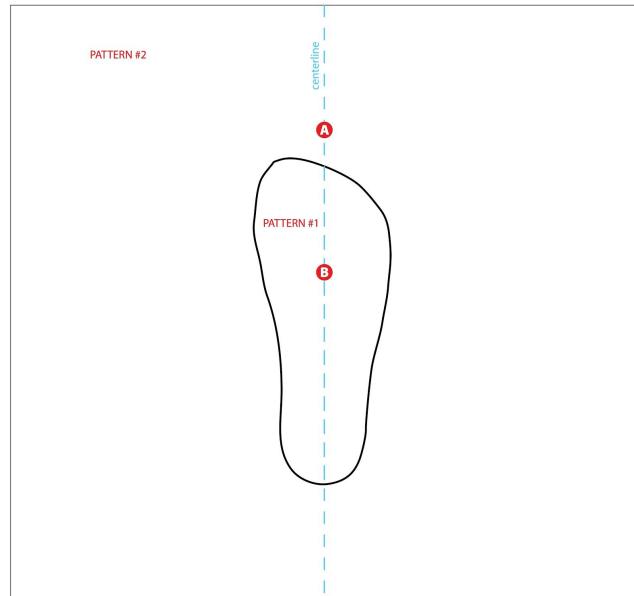
6. Cut out a piece of 2 ft. x 2 ft. heavy craft paper (paper grocery bag works). Label as Pattern #2.
7. Place Pattern #1 in the middle of the larger paper and trace the outside edge onto Pattern #2.
8. Then fold Pattern #1 on the centerline and mark the centerline from Pattern #1 onto Pattern #2 by drawing a dashed line along the fold (centerline) onto Pattern #2. Label this centerline.
9. Fold Pattern #2 along the centerline. Crease with finger along entire centerline of paper. Flatten the paper and extend the dashed centerline to the edges of the paper.



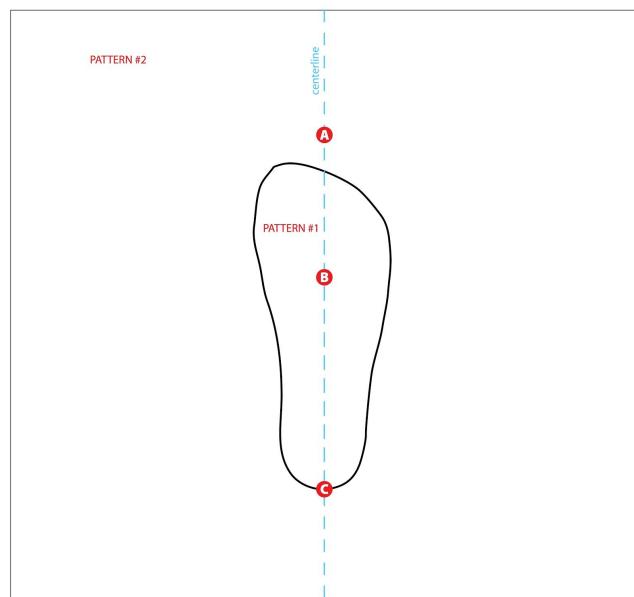
10. Mark a point 1 inch above toes on the centerline. Label this Point 'A'



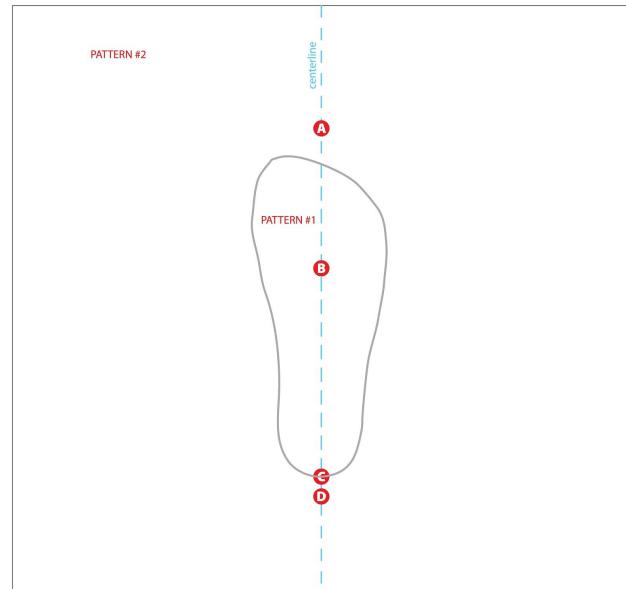
11. Fold String '1' in half, and mark the center point on the string with a permanent marker. Holding the marked center point of String '1' at Point **A**, lay string '1' down along centerline and mark a point at the end of String '1'. Label this Point **B**.



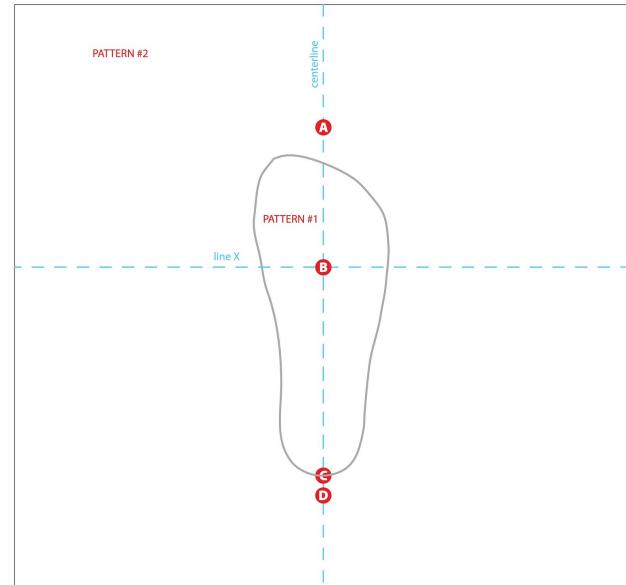
12. Mark a point where the heel intersects the centerline. Label this Point **C**.



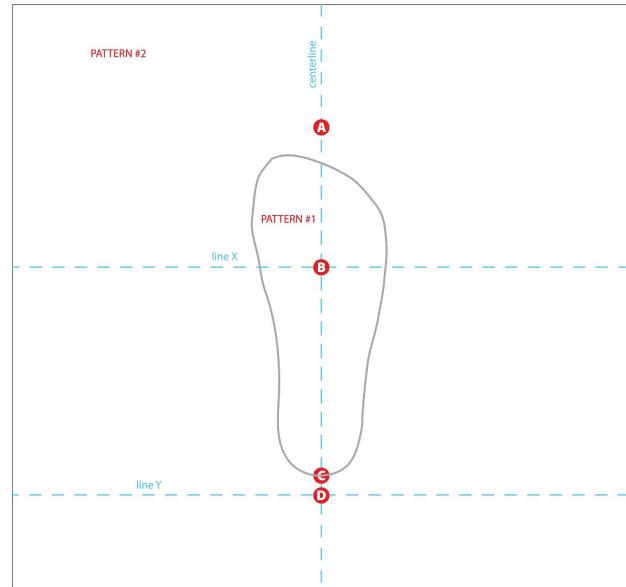
13. Mark a point 1/2 inch below point C on the centerline. Label this Point 'D'.



14. Place Pattern #2 face down on the table. Fold Pattern #2 perpendicular to the dotted centerline: line up the dotted lines on both sides, and fold on Point B. Crease all along this line and label it Line X.

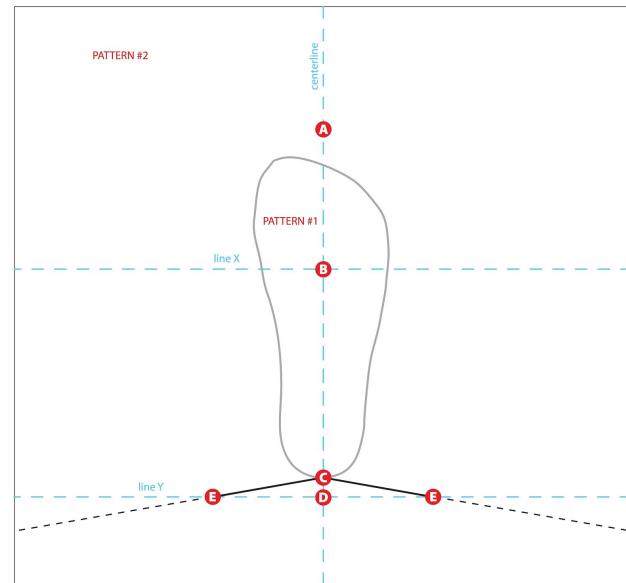


15. Fold and crease Pattern #2 again, perpendicular to the Centerline, this time folding on Point D, and label the new fold Line Y.

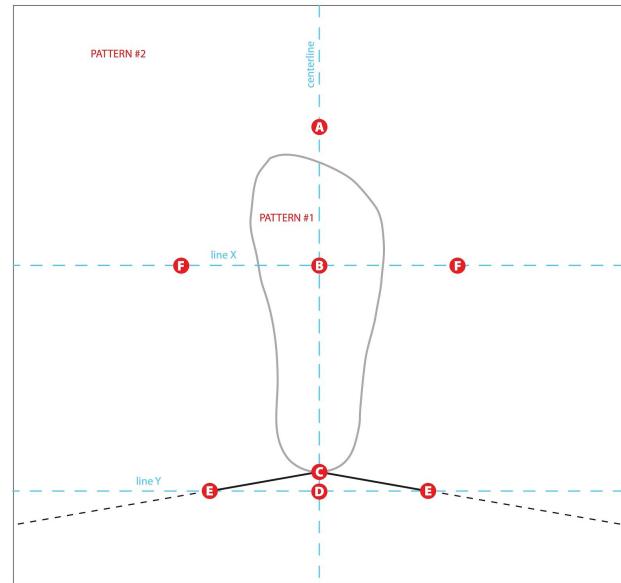


16. Fold String '2' in half, and mark the center point on the string with a permanent marker. Putting the center point on Point C, pull the string taut toward Line Y. Mark the point where the end of the string meets Line Y. Repeat on other side of heel. Label both of these Points E.

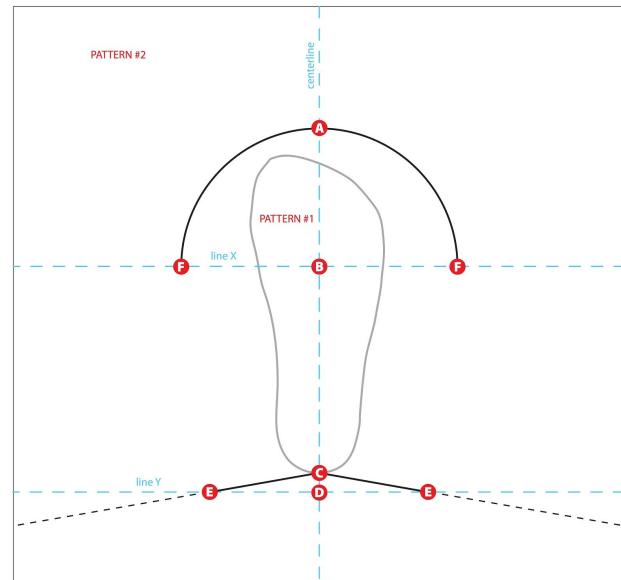
17. Draw a solid straight line connecting Points C and E. Then extend the same line but dashed, past Point E to the edge of paper. Repeat on both sides.



18. Place the marked centerpoint of String '1' at Point **B**. Pull the string taut across horizontal line **X** and mark a point at the end of the string. Repeat on other side of foot. Label both of these Points **F**.



19. Using a compass, set the point at Point **B**. Adjust the compass width so the pencil is on Point **F**, then draw a half circle from Point **F** to Point **F** on the other side.



20. Place one end of String '3' on Point **F**.

Pull the string taut across horizontal Line **X** away from the centerline and mark a point at the end of the string. Repeat on other side of foot. Label both of these Points **G**.

21. Now place one end of String '3' on Point **E** and pull it taut along the dotted part of Line **C-E**. Pull the string taut and mark the end of the string as Point **H**. Repeat on other side of foot. Label both of these Points **H**.

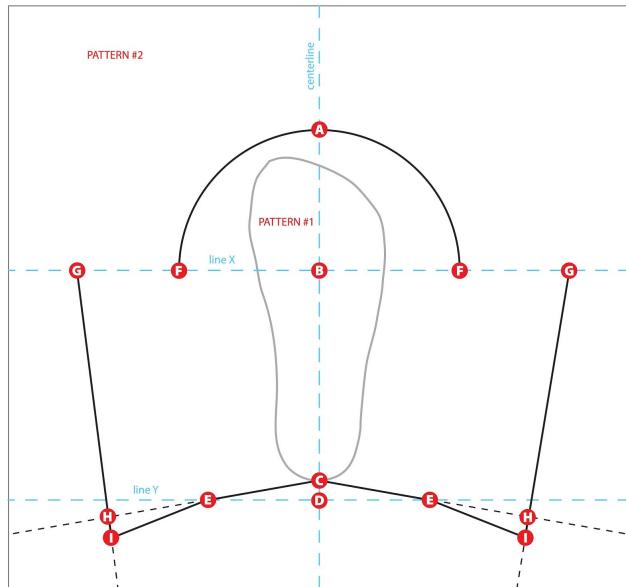
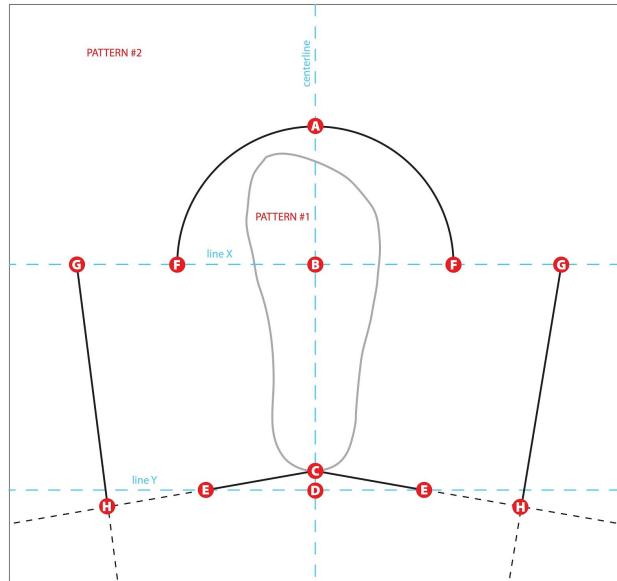
22. Draw a solid straight line connecting Points **G** and **H**, and extend a dashed line to the end of the paper past Point **H**. Repeat on the other side.

23. Mark  $\frac{1}{2}$  inch below **H** on the **G-H** line.

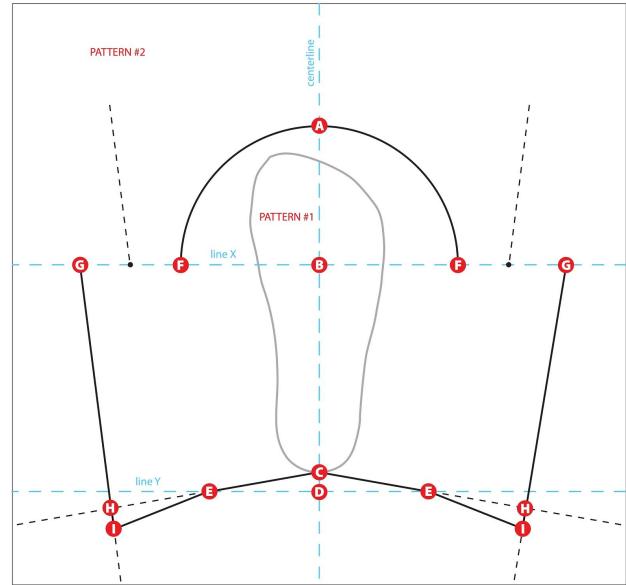
Label this Point **I**. Repeat on the other side.

24. Draw a solid straight line from Point **E** to Point **I**. Repeat on the other side.

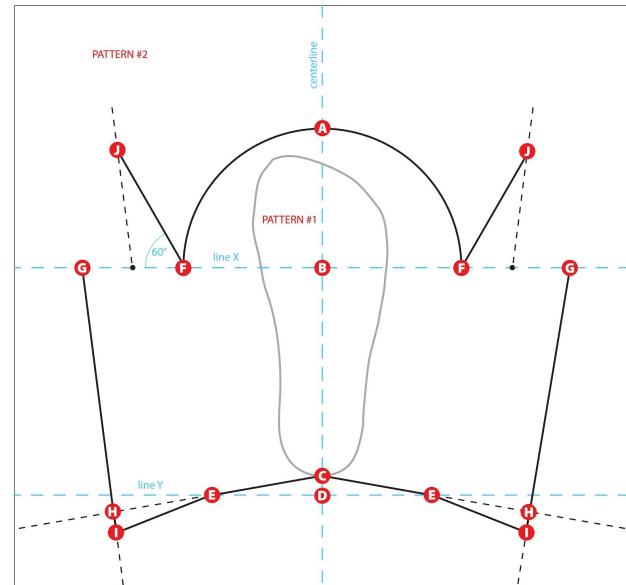
25. Draw a solid straight line from Point **H** to Point **I**. Repeat on the other side.



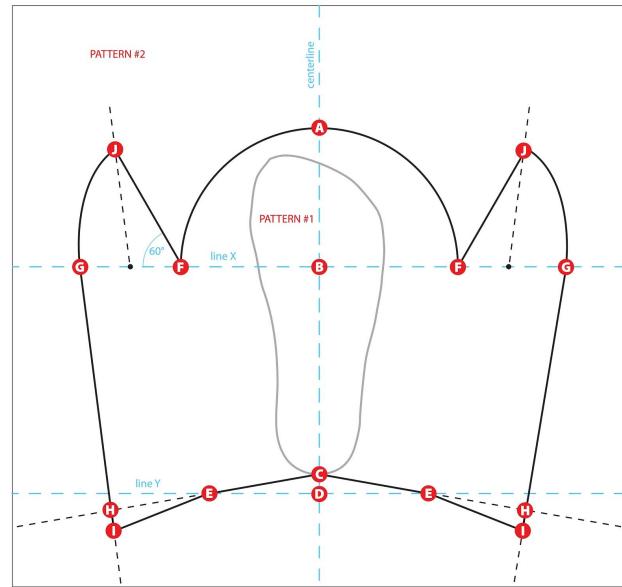
26. On line X, mark a point halfway between Points F and G. From that point, draw a dashed line upwards, and parallel to line G-H, for several inches. Repeat on the other side.



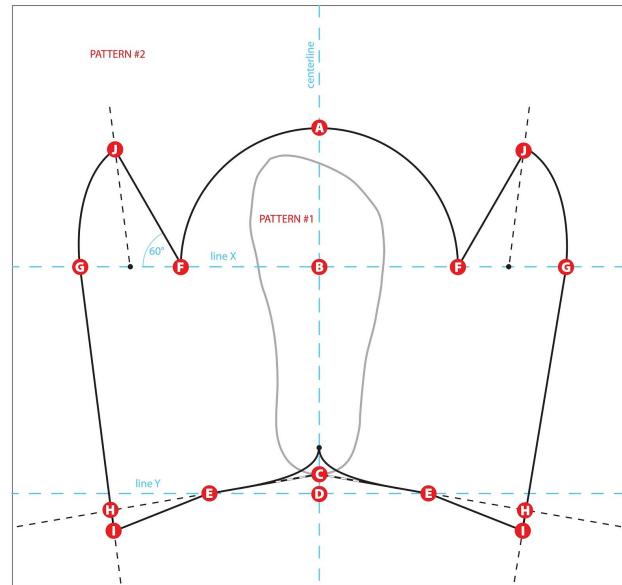
27. Using a protractor, starting at Point F, draw a  $60^\circ$  angle line upward and away from the foot until it meets the dotted line in the previous step. Label this Point J.



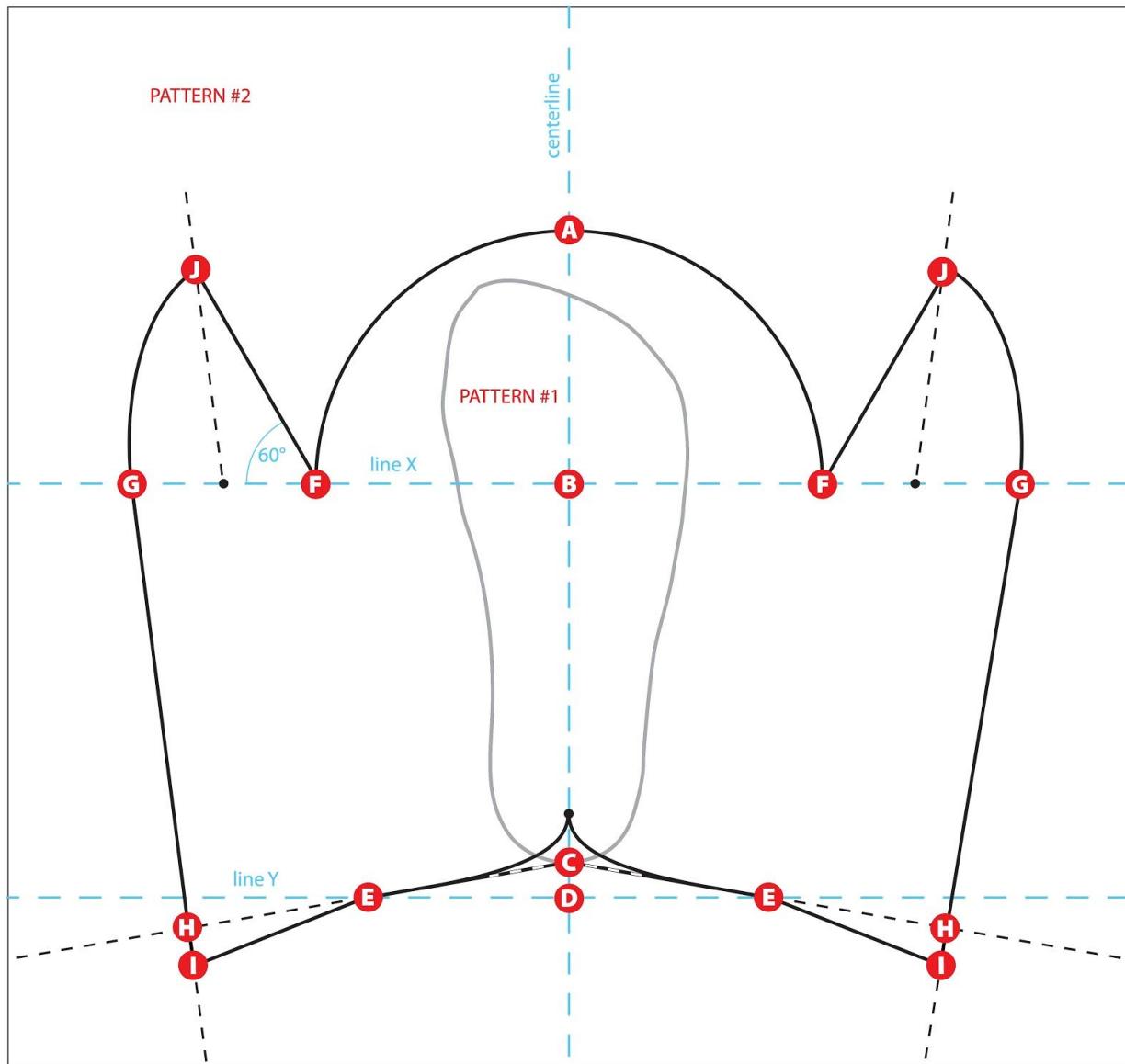
28. Hand-draw a soft rounded curve from Point **J** to Point **G**.



29. Mark a point on the center line about  $\frac{1}{2}$ " above Point C. Hand-draw a curve from here to a point about halfway between Point C and Point E. Repeat on the other side. Refer to the illustration of Pattern #2.



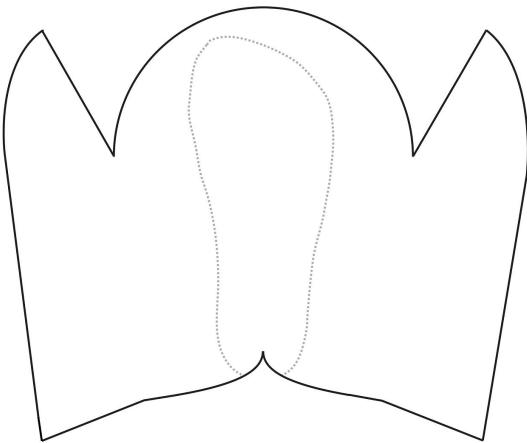
Your final pattern should look like this:



## Layout & Cutting

30. Cut your pattern out on the solid lines.

31. Place the pattern on the hide making sure to avoid any holes in the hide. Carefully trace the pattern with a pencil. Cut the pattern out with sharp scissors.



## Stitching

### 32. Basting the Arc - <https://tinyurl.com/mahkisina>

- a. Cut a piece of sinew 24 inches long. You might need to split the sinew (thinner) if it's too thick to fit through eye of needle.
- b. Thread the glover needle and put a small knot close to one end of the thread. Do not double the thread.
- c. Bring your needle up through the leather  $\frac{1}{4}$ " inside of Point F.
- d. Take the needle back down through the leather  $\frac{1}{4}$ " from first stitch along the arc.
- e. Repeat stitching evenly until a line of stitches is created all the way around the arc to the opposite Point F.

### 33. Making the Puckers - <https://tinyurl.com/mahkisina>

- a. When the basting is complete, carefully pull the sinew end to create puckers along the arc.
- b. Place your foot inside and adjust to where you feel it is comfortable. Make a knot in the end of the sinew to hold the puckers in place.

### 34. Fitting the Mahkisina - <https://tinyurl.com/mahkisina>

- a. Place the mahkisina on your feet. Move your toes up as far as they will fit under the puckers.
- b. While standing, have another person make sure puckers come together evenly by holding the sinew and pushing the puckers together with their hands.
- c. Again, having another person assist you, pull the mahkisina to the back to hold the heel ends together. Visually make sure they will come together and aren't overlapping.
- d. If too long in length, measure the overlap, cut the measurement in half.

- e. Lay the mahkisina flat, lining up heel and back edges. Trim the entire back edge only half of the amount of the overlap. Refit the mahkisina to check sizing.
- f. Submerge the puckered portion in warm water until the edges feel completely soaked through (you don't need to get the entire mahkisini wet).

35. **Pounding the Puckers** - <https://tinyurl.com/mahkisina>

- a. Place the mahkisini on top of a towel on a hard solid surface. Adjust the puckers to try to make them line up on both sides as best as possible and smooth out any wrinkles by hand or using a pointed but not sharp object (closed scissors, awl, etc).
- b. Now take a large rubber mallet and gently pound the puckers flat.
- c. Let dry overnight. If that's not possible, you can use a hair dryer to speed up the drying process.

36. **Sewing the Puckers** - <https://tinyurl.com/mahkisina>

- a. Cut a piece of sinew 24 inches long for the center seam stitching. You might need to split the sinew (thinner) if it's too thick to fit through eye of needle.
- b. Thread the glover needle and put a small knot close to one end of the thread. Do not double the thread.
- c. With mahkisini toes facing away from you, bring your needle up through the leather edge near Point F. Secure in place with a knot and several stitches across both sides of your moccasin top. Bring both sides of the puckers together.
- d. With the edges of leather butted together, puckers lining up, keeping slack in thread away from the next stitch, push your needle into the top of the first pucker on one side about 1/4" from edge. **Do not go all the way through the leather.** Instead you will skim the leather with your needle through half the thickness only and slide it through to come out at the cut edge.
- e. Rotate your mahkisini 180°. Keeping slack in thread away from the next stitch, repeat the same stitch on the opposite side, on the first pucker of your moccasin about 1/4" from the edge and not going all the way through the leather. Your needle will come out on the cut edge of the leather.
- f. Rotate and repeat this stitch on the next pucker, 1/4" from the edge and not going all the way through the leather. Your needle will come out on the cut edge of the leather. Continue one side at a time, one pucker at a time. Adjusting the puckers as needed.
- g. When you arrive at the end of the pucker toe seam, feed your needle through to the inside of your moccasin. Turn it inside out and repeat the same stitching, from the end of the toe up to Point F.
- h. Finish with a square knot and several stitches to secure the seam.

37. **Sewing the Heel** - <https://tinyurl.com/mahkisina>

- a. Mark Point E on hide for sewing heel.

- b. Stitch from Point **E** down to bottom of heel. Repeat the Modified Baseball stitch on this seam. Stitches should be  $\frac{1}{4}$ " from edge and  $\frac{1}{4}$ " apart.
  - c. When you arrive at the bottom of the heel seam, feed your needle through to the inside of your mahkisini. Turn it inside out and repeat the same stitching, from the bottom of the heel up to Point **E**.
  - d. Finish with a square knot and several stitches to secure the seam.
38. Repeat all the above steps for your second mahkisini and now your mahkisina are ready to wear!

### **Trimming**

39. **Trimming the Flaps** - <https://tinyurl.com/mahkisina>
  - a. Put moccasins on, adjust to be centered on foot and carefully trim flaps if needed. Flaps should be just above floor so they will not drag on the ground when walking.