Tutorials for Common Rat Hammocks and Accessories

Tutorials Written and Photographed by Vonda Z

Pocket Flat

Honeycomb

House

Tube

Bunk Bed

Tunnel Pocket

Pumpkin

Cube

Reversible Cross Tube

Contents

Introduction

These tutorials provide general guidelines for sewing a variety of different hammocks and accessories designed for rats. The measurements I have provided are those that work for me – housing male rats in a dual Critter Nation cage or in a Martins R695 cage. You may prefer to adjust the sizes to suit your cage and the type of critters you keep in it. For example, I make my tubes with a 15" diameter. This works well for my large squishy male rats. For larger types of pocket pets, you might need a larger diameter. For female rats that prefer tighter spaces, you might use a 13" or 14" diameter. The Critter Nation can accommodate tubes that are 30" long or even longer if you choose to arc the tube when you hang it. In the Martin's cage, I prefer shorter tubes of 18" to 24".

I did not invent most of these hammocks, although I have frequently modified designs to suit the needs of my cages or to attain a specific aesthetic. Even those designs that I came up with on my own – I am sure there was someone who came up with that idea before I did that I just didn't know about. And sometimes I would try to mimic a picture of a hammock that I saw online somewhere. The instructions, however, are all in my own words – describing how I choose to make each type of hammock, and the photographs are all my own originals.

I started making this document so that I would have all my hammock tutorials on my tablet for easy reference while sewing, customized to the dimensions that I know fit in my cages. However, I started adding details and photos when I realized this document could be useful for others as well. Most of these tutorials exist in some form on the web – but remembering which tutorials are where could be a challenge. Sometimes tutorials or photos disappear from the web – keeping them in one document on your own computer will help ensure they are always available. Finally, this document has been formatted to print nicely (if you prefer to print out instructions for use while you sew), to display adequately on a tablet if you like to use your tablet, laptop, or netbook to reference instructions while you sew, and to print and display with high resolution photos that can be enlarged to see more detail.

One drawback of the high resolution photographs are the way they increase the file size of this document. Thus, it may take a long time to load online or to download to your computer, depending on your connection speed.

Please forgive any sloppy sewing in the photo examples. I took sewing in home economics when I was in high school and was pretty good at it. However, it has been more than 20 years, and my sewing skills have gotten rusty since then. I don't always sew the perfect seam or top stitch, and I don't worry about it too much, since my rats will have everything chewed in short order. The more they like it, the more they destroy it.

Also, I usually make two of everything, so that I have one to use while the other is in the wash. Thus, in some photos, you might notice that one step shows a slightly different piece than the

last step. I tried to be consistent, but sometimes just forgot which hammock I was photographing as I went.

If You Have Never Made a Hammock Before . . .

Please start with the Basic Flat – the simplest of all hammocks. There are more details in that tutorial to help you get started, including the steps involved with sewing ribbon loops for hanging hammocks (using Ribbon Loops) and for using a grommet or eyelet pliers for installing eyelets/grommets (using Eyelets). (Eyelets and grommets are the same thing, except that eyelets are usually ¼" or smaller [I use ¼" eyelets], and grommets are usually larger than ¼".) Note that in most of my tutorials, I show examples using eyelets, as this is my preferred method to hang hammocks. However, there are a few projects where ribbon loops work better (eg, cubes and tubes).

Instructions for inserting hanging loops and for installing eyelets (grommets) can be found in the Basic Flat tutorial.

You will notice that the materials for most hammocks call for two types of fabric: a woven cotton or flannel piece and a fleece piece. These two materials will be sewn back to back, right sides together in most cases, so that the outside of the hammock consists of a decorative cotton/flannel print or solid, and the inside of the hammock consists of a soft fleece lining for your rat to snuggle against. (If you can't tell which side of your fleece is the right side – well, neither will your rats – so don't worry about it). If you prefer, you may use fleece for both the inside and the outside piece.

Finished sizes are approximate. All the tutorials herein assume you use a seam allowance of ½ inch. Larger or smaller seam allowances will affect the finished size of the product.

Remember to always wash your material exactly as you will wash your hammocks **before** cutting any fabric. If it is going to shrink, you want to make sure it shrinks before you do any measuring. I also always wash my rat laundry in hot water to sanitize everything (doing a double rinse cycle with vinegar added to the first rinse to help remove the urine smell). Because this produces the risk of the colors running, I like to wash the fabric before sewing so that I know how well it will withstand my wash cycle.

Basic Flat

Materials

Cotton or Flannel

- 15" square piece

Fleece

- 15" square piece

Extras

- Thread (match to fleece)
- 4 grommets or 4 pieces of ribbon for hanging

Options

- 15"x15" is a generic size. You can make your hammocks larger or smaller, square or rectangular. 15" x 17" is another common rectangular size I use.
- Two pieces of fleece can be used instead of one cotton and one fleece piece.

Finished Size

- 14"x14"

Description

The basic flat is the simplest of hammocks: a plain square of lined fabric that hangs from the cage. You can hang it so it lies flat or so that it bunches depending on where you clip the hooks to the cage. You can adjust the height of the hammock by adding teething links or shower curtain rings to the chain that you hang the hammock from. You can even hang a second hammock below the first by attaching the second hammock's hanging links to the hanging rings of the first hammock.

Instructions

1. **Cut the fabric** pieces described above.


Tip: Cut templates for the pieces you will need. With templates, you can easily cut more pieces of the same size for future projects. I use Kraft paper on a roll to make my templates, but you can use spare woven fabric to create your templates as well. Having templates also helps layout how you will cut your fabric pieces in a way that uses the material you have most efficiently.

A rotary cutter set is very helpful for cutting perfect squares and triangles with straight edges.

2. Align the cotton fabric over the fleece fabric with the **right sides together**.
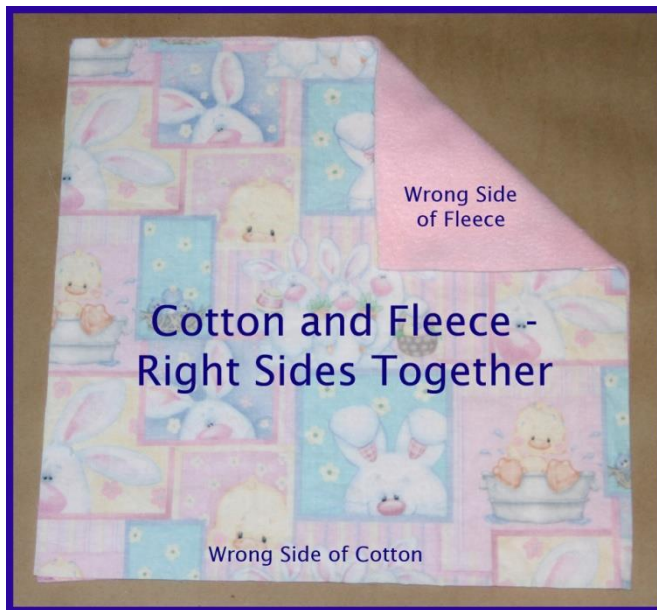
The right side of the fabric is the side that will be visible in the finished product.

3. **Installing Ribbon Loops Instead of Eyelets To Hang Your Hammock (Optional)**
   Hammocks can be hung from ribbon loops sewn into the corners, from hooks inserted through eyelets (grommets) or by using large safety pins. If you would like to use ribbon loops, do the following:

   a. **Cut** four pieces of ribbon of equal size (twice the length of the finished loop plus 1").

   b. **Fold** the ribbon in half. Position each loop between the fleece and cotton in each of the corners with the cut edge of the ribbon aligned with the cut edge of the fabric and the loop end pointing to the middle.

c. **Pin** the ribbon in place between the fleece and the cotton.

Pin Ribbon in Place

d. Continue with the rest of the tutorial.

4. **Pin** around the edges of the square to hold the material in place.

Wrong Side of Cotton
(Right Sides Are Together)

Sew along this line ➡

Leave this part open ➡
to turn hammock inside out

Pin and Sew Around the Edges
Leaving a Small Opening

5. **Sew** around the sides of the square using a ½" seam allowance. Finish sewing a couple of inches before your starting place, leaving an opening big enough to turn the hammock right-side out.

6. **Trim** the excess thread. Trim the seam allowance down so that the edges won't be too bulky, leaving the ½ inch allowance at the opening.

Cotton and Fleece Sewn Together, Seam Allowances Trimmed

Do Not Trim Seam Allowance at Opening

7. Turn the hammock **right-side out** by pulling it through the unsewn opening.

8. **Push out the corners** and fold the seam allowance inside at the opening.

Using a pencil tip to push out the corner tips can help. Pulling the corners out with the tip of a pin is also useful.

9. **Slipstitch** the opening closed.

10. Finish off the hammock by **top stitching** around the edges.

Top stitching is not necessary, but it helps to make a more finished product. It also helps the hammock retain its shape when it is washed, and may allow it to last longer.

(Yours may have ribbon loops in the corners)

11. **Installing Eyelets Instead of Ribbon Loops to Hang Your Hammock**
    If you did not use ribbons to hang your hammock, insert eyelets (grommets) in all four corners (practice on scrap fabric first if you have never inserted eyelets before):

    a. To insert eyelets using eyelet pliers, **punch a hole** in each corner of the hammock with the pliers.

b. You may need to make the hole slightly larger by gently inserting the tips of a pair of shears in the hole – but be careful not to make the hole too big.

c. The eyelets come in two pieces – a male (front) piece with a longer center shaft and a female (back) piece with a wider opening.
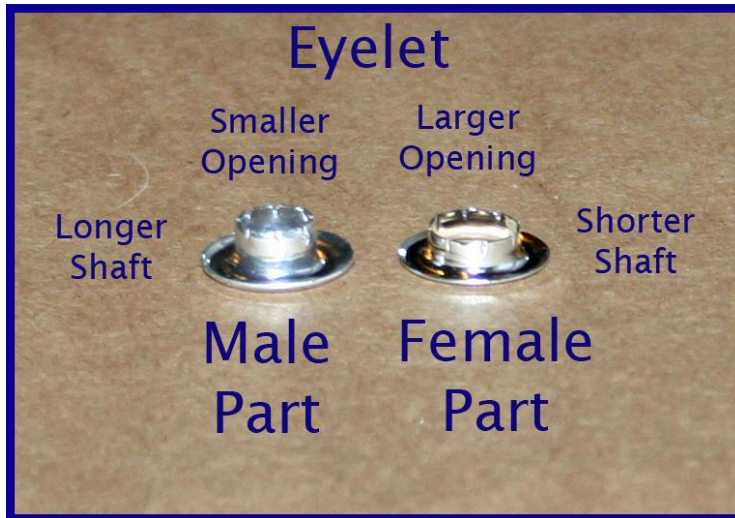
d. **Insert the male end** of the eyelet (the piece with the longer rod) through the hole from the front to the back. It should be a very tight fit, but with no fabric covering the hole.

e. **Place the female end** of the eyelet (the piece with the wider opening) over the rod of the male eyelet piece – the fabric should be held tight between the two pieces.

Insert the Female Part
of the Eyelet over The Male Part

f. Use the pliers to **crimp** both eyelet pieces together – the end of the pliers with the post should enter the eyelet center from the side of the female eyelet piece (back of the eyelet).

Insert the Post of
the Pliers into the
Eyelet Opening from
the Female Side

Make Sure the Eyelet is Aligned Flat
Against the Plier Surface

Crimp The Eyelet

Finished Eyelet
Front (Male End)

Finished Eyelet
Back (Female Side)

g. Insert your **hanging hooks** through the eyelets. Here, I use split key rings with an
    attached lanyard hook. Other options include hammock hooks, shower curtain
    hooks, loose leaf binder rings, paper clips, and large safety pins.

Basic Flat

Corner Flat

Materials

Cotton or Flannel

- 15" x 15" right triangle

Fleece

- 15" x 15" right triangle piece

Extras

- Thread (match to fleece)
- 3 grommets or 3 pieces of ribbon for hanging
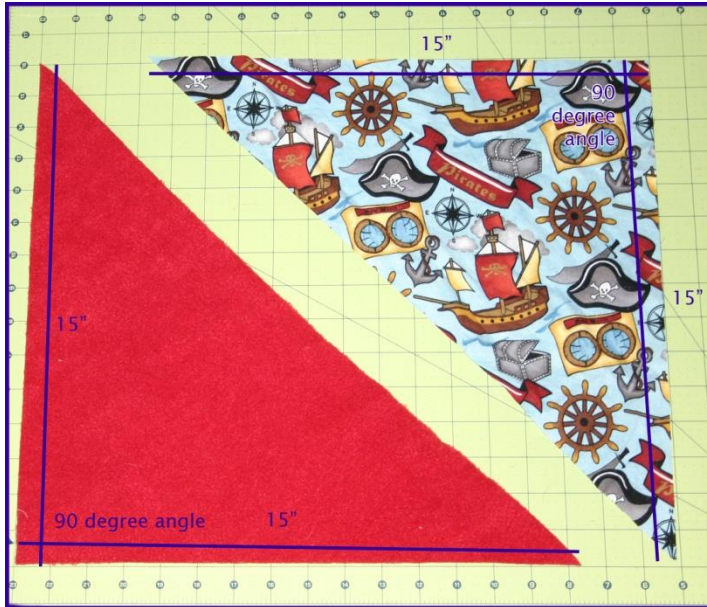
Finished Size

- 14"x14" right triangle

Description

The corner flat is identical to the basic flat, but it is shaped like a triangle and meant to be hung in the corner of a cage.

Instructions

1. **Cut your fabric**. The easiest way to make a template for a 15"x15" right triangle, is to make a 15"x15" square, then divide it in half diagonally from one corner to the opposite corner.

2. **Pin** the cotton on top of the fleece, **right sides together.**
3. Add the **ribbon loops** if you will not be using eyelets/grommets (see Basic Flat).
4. **Sew** along the edges, leaving an opening to turn the hammock right side out.

5. **Trim** the excess thread and seam allowances, except at the opening.

6. Turn the hammock **right side out**.
7. **Slip stitch** the opening closed.

8. **Top stitch** around the sides.

9. Add eyelets (see Basic Flat) if you did not use ribbon loops.

Add Eyelets

Note that in Critter Nation cages, I find it helpful to put two lanyard hooks in the ring that will be in the corner of the cage – and attach one hook to each side of the cage so that the corner of the hammock stays in the corner of the cage.

10. **Hang!**

Corner Flat

Web-Shaped Flat

Materials

Fleece

- (2) 14" octagonal web-shaped pieces

Extras

- Grommets or Ribbon for Hanging

Finished Size

- About 13" across

Description

This is a basic flat that I designed for themed cages. It is made with two pieces of fleece with decorative top-stitching. I have used this flat to make hammocks that resemble spider-webs, snow-flakes, and fireworks.
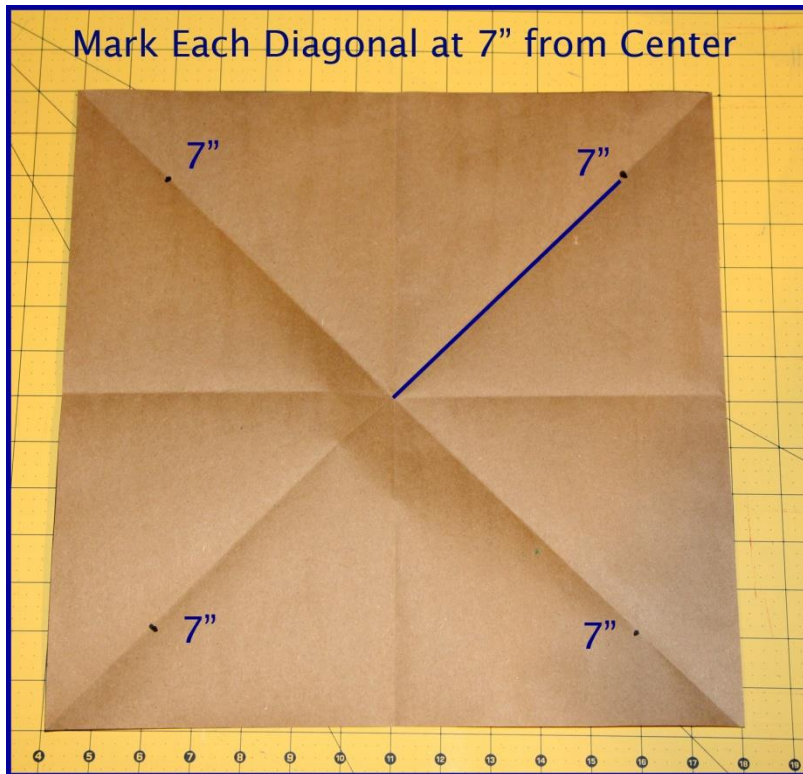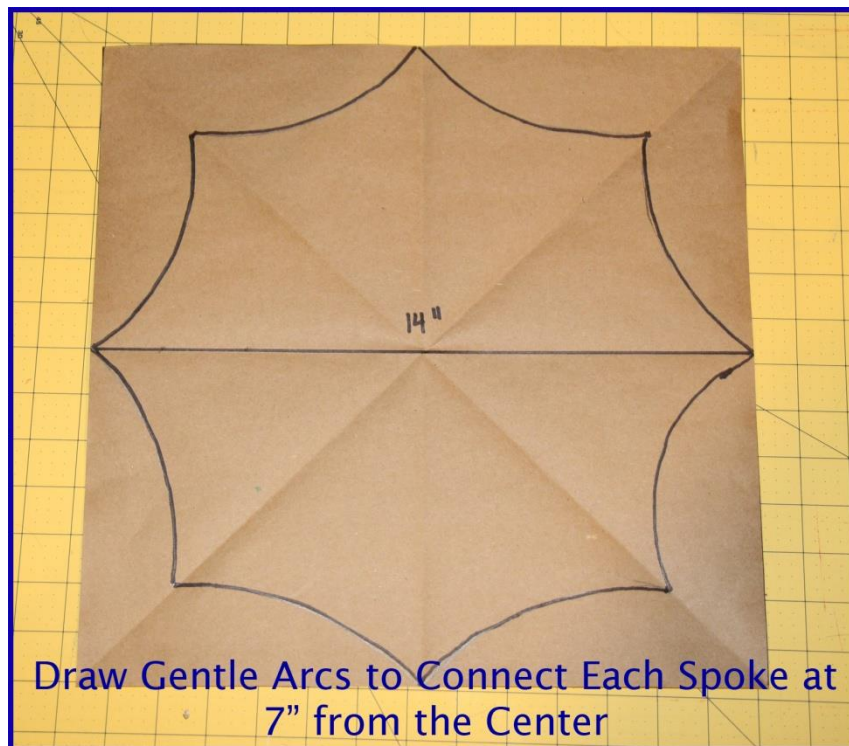
Instructions

1. **Create a Template**
   a. **Cut** a 14" paper square.
   b. **Fold** the square in half lengthwise, crosswise, and across both diagonals.
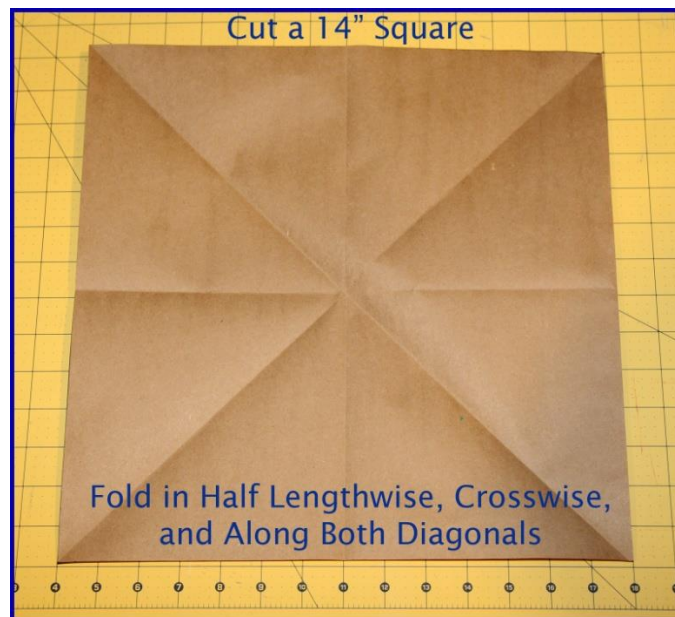
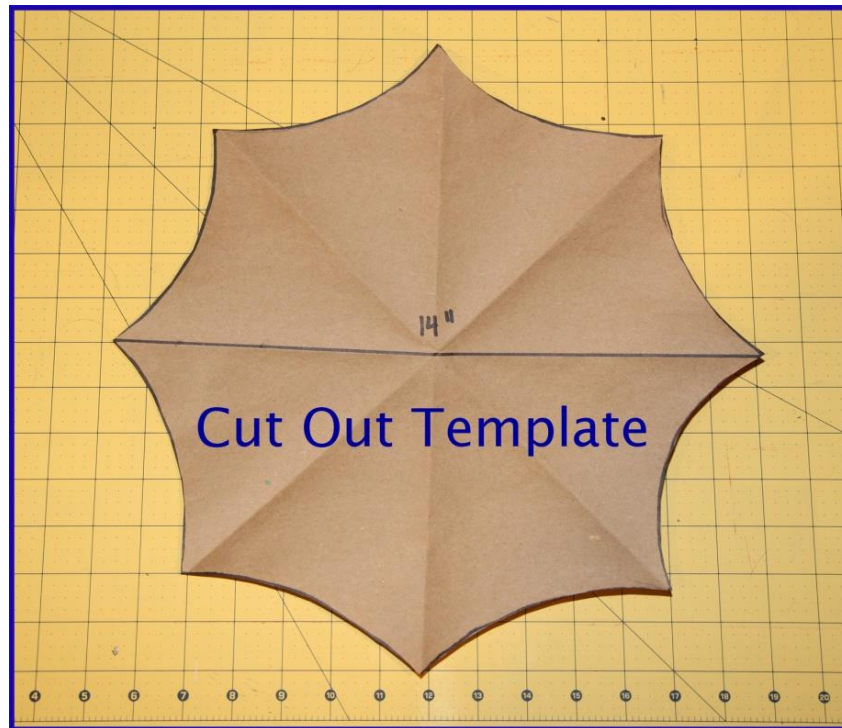c. **Mark** the diagonal folds at 7 inches from the center point.

Mark Each Diagonal at 7" from Center

7"   7"

7"   7"

d. **Draw** a gentle arc from the end (7" from center) of each spoke.

14"

Draw Gentle Arcs to Connect Each Spoke at 7" from the Center

e. **Cut out** the template.

2. Using the template, **cut your fabric**.

3. **Pin** one piece of fleece to the other, **right sides together.**
4. If you are using ribbon loops, insert the ribbon loop into every other corner.

Pin One Piece of Fleece to the Other

Right Sides Together

5. **Sew** along the edges, leaving a small opening to turn the hammock inside out.

Sew Along Edge

Leave Small Opening
to Turn Inside Out →

Trim Seam Allowance

6. **Turn** the hammock **right-side out** through the small opening.
7. **Slip Stitch** the opening closed.
8. **Top Stitch** around the sides.

Turn Right-Side Out

Slip Stitch Opening Closed

Top Stitch Around Edges

9. **Draw** your design on the hammock with chalk or a disappearing ink marking pen. In this case, I am doing a Firework design.

Draw Decorative Pattern with Chalk or Marking Pen

10. **Sew** your design on the hammock using zig-zag or decorative stitching and an appropriate color thread.

11. **Add Grommets** to every other corner.

12. **Hang!**

No-Sew Flat

Materials

Fleece

- (2) 19" square pieces

Extras

- Split Rings for hanging

Finished Size

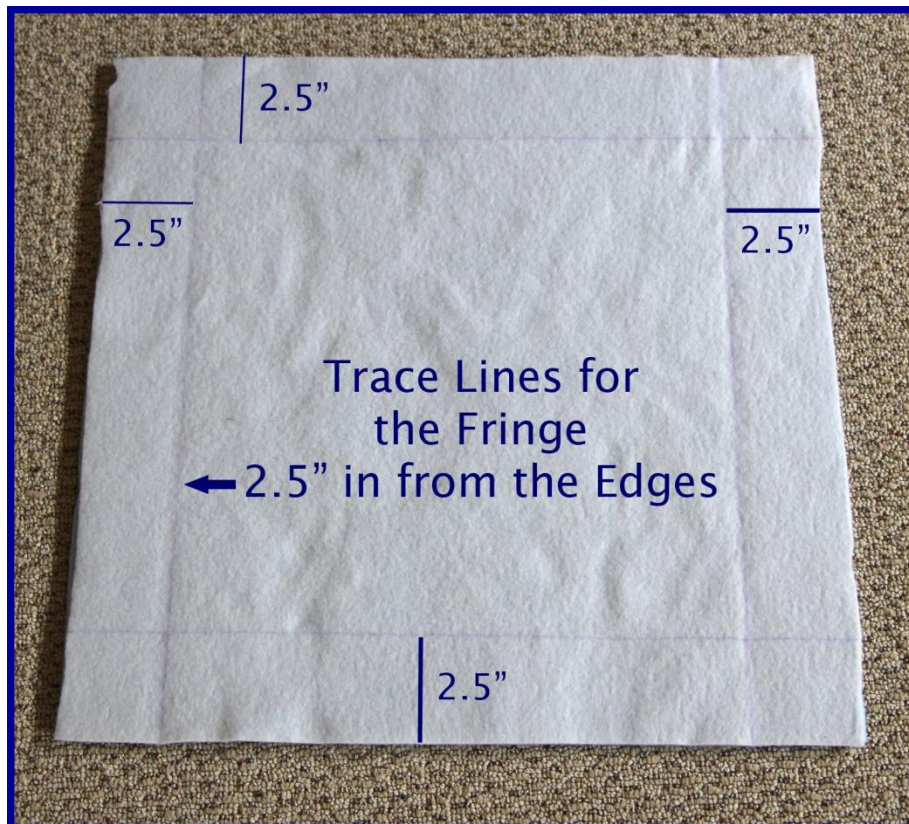- About 14" square, not including fringe

Description

This is a simple flat hammock that can be made with no sewing required.

Instructions

1. **Cut your fabric**.

2. **Place** both pieces of fleece **on top of one another.**
3. **Trace Lines** about 2.5" in from each edge. This will be the fringe.

4. **Cut** Fringe around each side, leaving ½" between each cut. Using pinking shears will give the hammock and extra "fringy" appearance.

5. **Tie** the bottom layer of each fringe cut (blue layer above) to the top layer of each fringe cut (white layer) with a double knot.
6. **For the Corners,** insert a split ring around both layers of fringe at one end of the corner and tie to both layers of fringe at the opposite side of that corner.

7. Hang

Pocket Flat

Materials

Cotton or Flannel

- 15" x 33" rectangular piece

Fleece

- 15" x 33" rectangular piece

Extras

- Thread (match to fleece)
- 4 grommets or 4 pieces of ribbon for hanging

Options

- To make a custom size, cut the width 1" longer than the desired width, and the length 2 times the desired length plus 1".

Finished Size

- 14"x16"

Description

The pocket flat is like a basic flat with pockets, one on each end. This type of hammock is loved by rats that like to burrow underneath things.

Instructions

1. **Cut your fabric**.

2. **Place** the cotton piece over the fleece with the **right sides together**.
3. **Pin** along the two short sides, leaving the long sides open.
4. **Sew** where you have pinned.

5. **Trim** the excess thread and the seam allowances.
6. Turn the hammock **right side out,** flattening the seams.

Turn Right-Side Out and
Smooth Out Seam
Raw Edge
Seam
Seam
Raw Edge

7. **Top stitch** over the seams you just sewed.

Top Stitch over
Both Seams
Top Stitch

8. Lay the hammock cotton side up. **Fold the right end** in toward the center, cotton sides together, fleece sides out.

Fold the Right End to the Middle of the Hammock

Cotton Sides Together
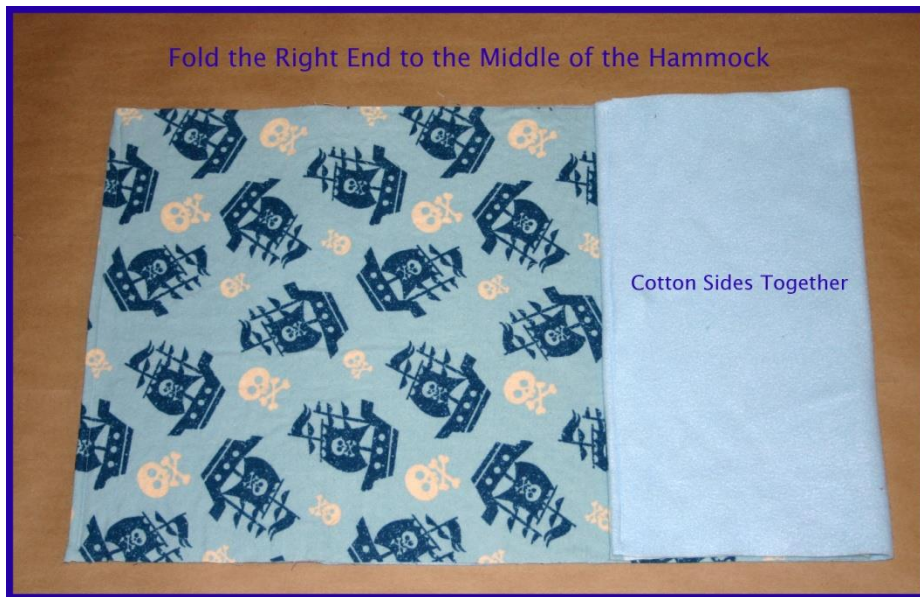
9. **Fold the left end** in to meet the right end.

Fold the Left
Side over
to Meet the
Right Side

Note: If you prefer, you can create pockets of different sizes by meeting the seams somewhere other than the center. For example, you could have a right pocket that is ¾ of the hammock and a left pocket that is ¼.
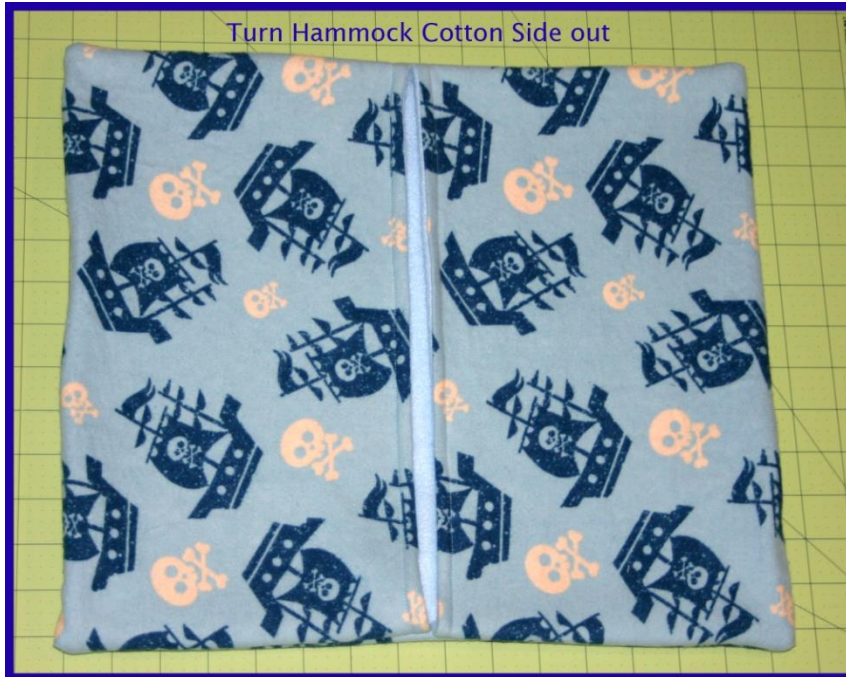
10. **Pin** along the raw edges.

11. **Add ribbon loops** if not using eyelets (see Basic Flat).
12. **Sew** the raw edges.
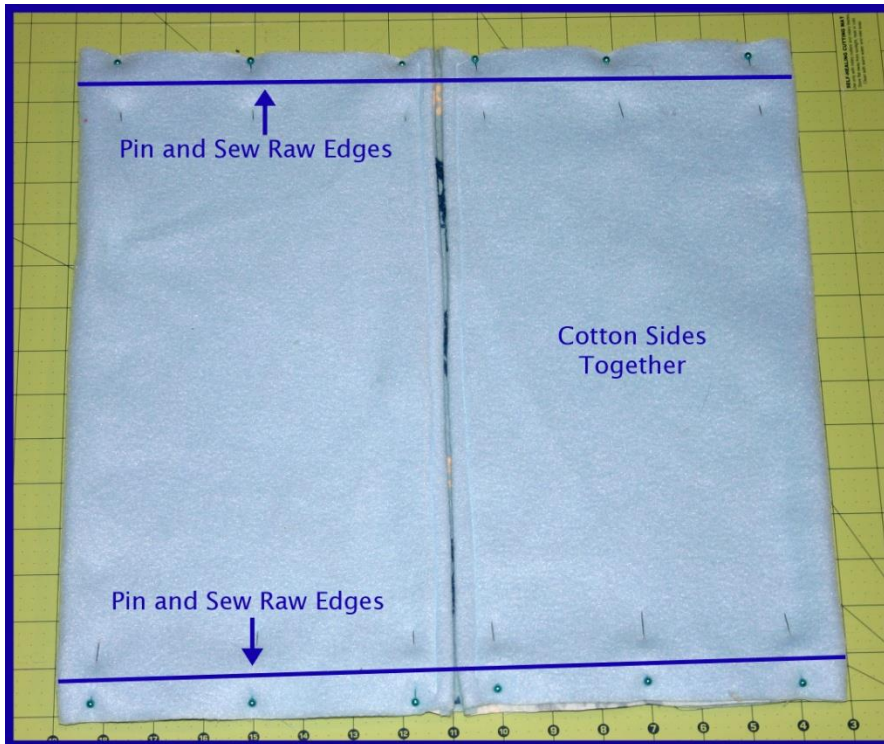
13. **Trim** the seam allowances.

14. Turn the hammock **cotton side out.**

15. **Top stitch** along the sides with a seam (you can topstitch over the folded sides as well if you wish).
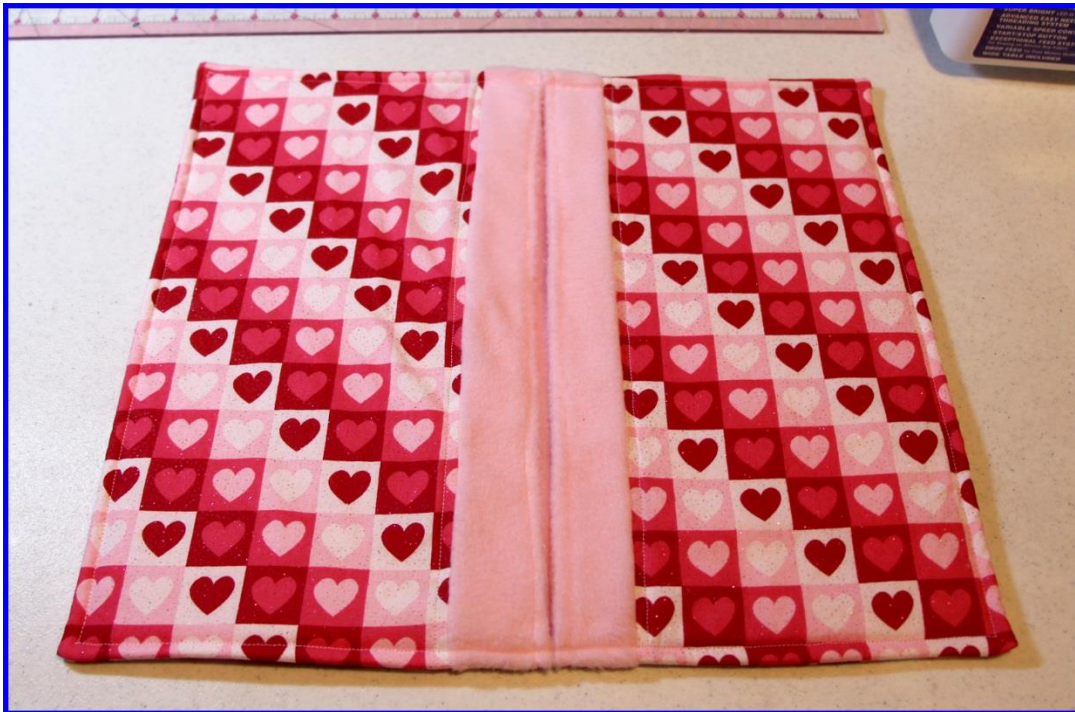
16. **Add Eyelets** if needed in the corners (see Basic Flat).

17. **Hang!**

Pocket Flat with Fleece Border

Materials

Cotton or Flannel

- **15" x 30" rectangular piece**

Fleece

- **15" x 36" rectangular piece**

Extras

- Thread (match to fleece)
- 4 grommets or 4 pieces of ribbon for hanging

Finished Size

- 14"x16"

Description

This pocket hammock modification adds fleece borders to the openings of the pocket.

Instructions

Follow the instructions for the Pocket Flat, except for the following:

1. **Cut your fabric** as shown in the "Materials" section on the previous page of this tutorial.

   The changes are highlighted in bold.

   Basically, you are reducing the length of the cotton piece by three inches and increasing the length of the fleece piece by 3 inches, in order to create a 1 ½" border on each side of the hammock.
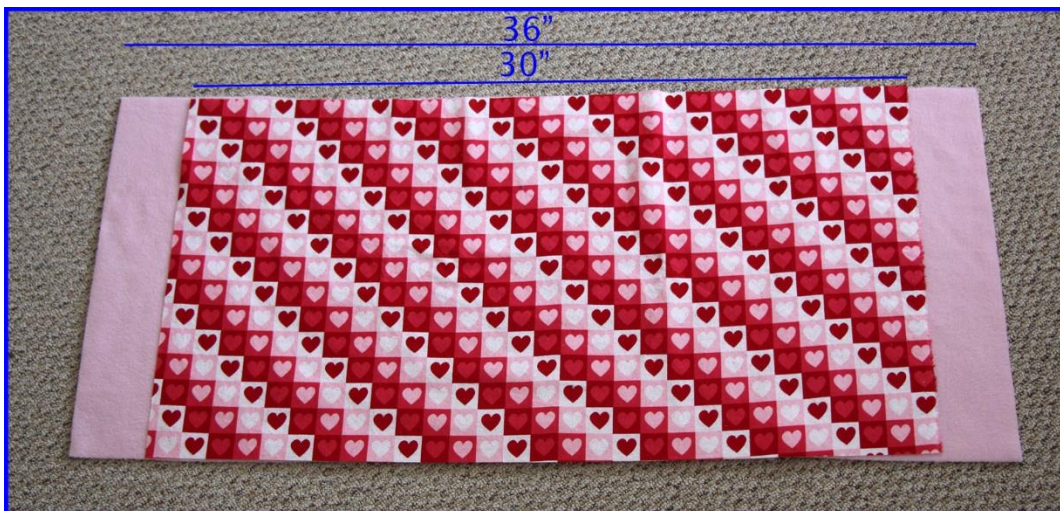
2. After cutting your fabric, **pin** one short edge (15") of the cotton piece to one short edge (15") of the fleece piece, **right sides together.**
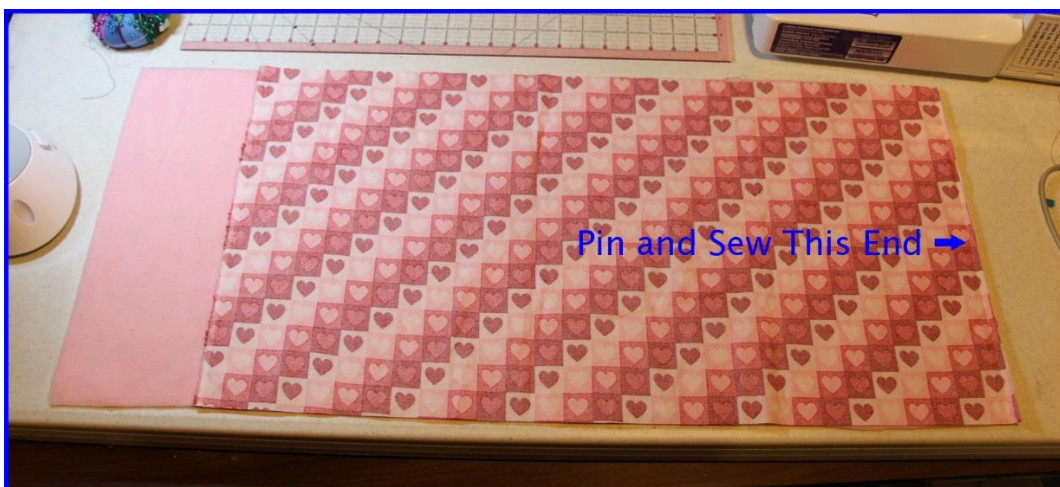
3. **Sew** along the pinned edge and **trim seam allowances.**

4. Pull the opposite edge of the cotton across to the opposite edge of the fleece. **Pin that edge, sew, and trim seam allowances.**

5. Turn the blanket piece right side out and smooth flat so that there is 1 ½" of fleece on each finished side of the hammock. Top stitch across the folded edge of the fleece and along the cotton near the seam.
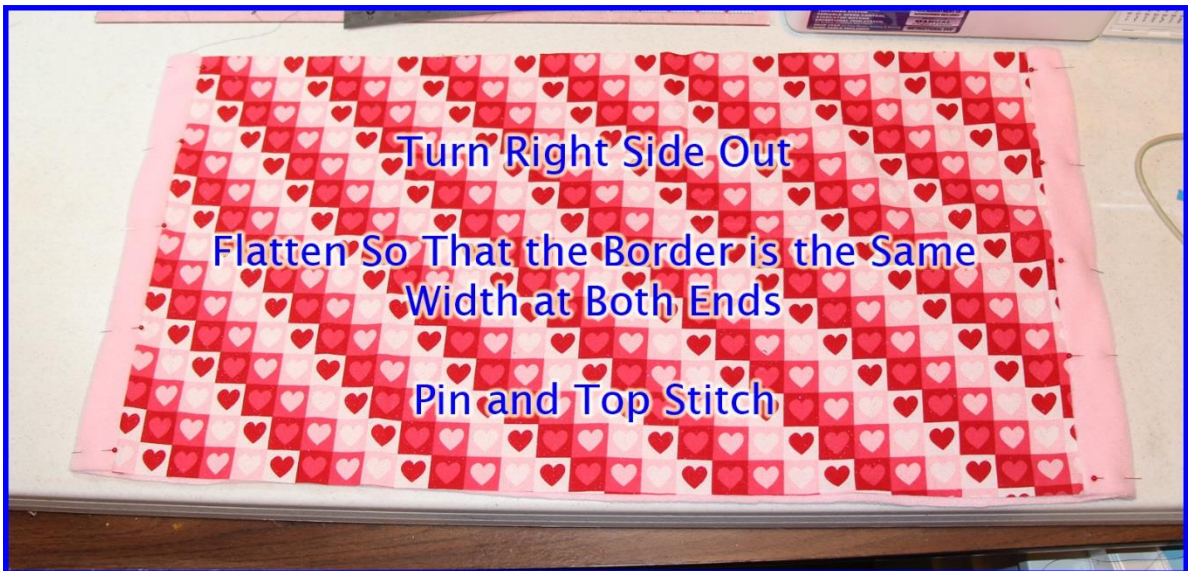
6. Continue with **Step 8** of the Pocket Flat tutorial to finish the hammock.

Tunnel Pocket

Materials

Cotton or Flannel

- 15"x 17" rectangle (hammock piece)
- 15"x 10" rectangle (top piece)

Fleece

- 15"x 17" rectangle (hammock piece)
- 15"x 10" rectangle (top piece)

Extras

- Thread (match to fleece)
- Eyelets or Ribbon for Loops

Finished Size

About 14" x 16"

Description

The tunnel flat is similar to the pocket flat except there is an exit on both ends.

Instructions

1. **Cut out your fabric.** The larger pieces will form the hammock, and the smaller pieces will form the blanket-like top piece.
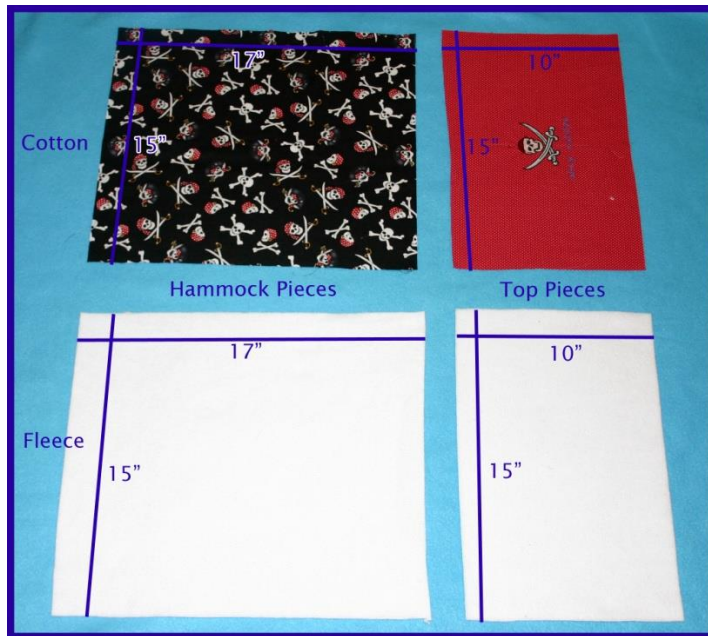
2. Start with the smaller (10"x15") top pieces. **Pin** the cotton piece to the fleece piece, **right sides together**. Pin along the long ends only. Leave the short ends open.
3. **Sew** along the long ends.

4. **Trim** the excess thread and the seam allowances.

Trim Seam Allowances

5. Turn the piece **right side out**, flatten, and smooth.
6. **Top stitch** along both seams. Leave the raw edges open.

Turn Top Piece Right Side Out

Top Stitch

ahoy ratties

Top Stitch

7. Position the top piece, **cotton side up**, on top of the larger fleece piece. Align the raw edges with the long sides of the fleece. Center the top piece on the fleece.

8. If you prefer to use ribbon loops to hang your hammock, **position the ribbon loops** in the corners now.
9. Place the larger cotton piece, **right side down**, over the fleece, so the right sides of the top piece cotton and the hammock piece cotton are facing each other.

10. **Pin** around all four edges of the hammock.
11. **Add ribbon loops** (see Basic Flat) if not using eyelets/grommets.
12. **Sew** around the edges, leaving an opening large enough to pull the fabric through and turn the hammock right side out.

13. **Trim** excess thread and seam allowances, leaving the seam allowance at the opening .
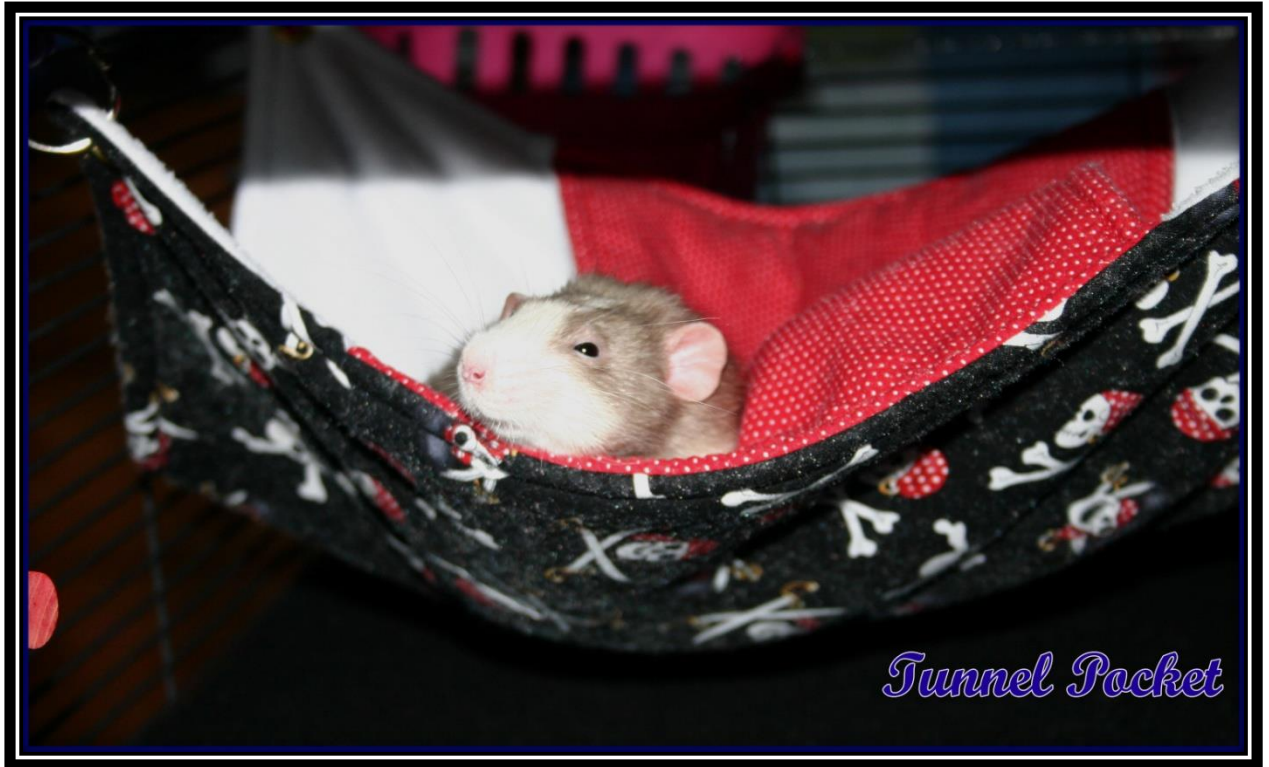
14. Pull the material through the opening, turning the hammock **right side out**. Flatten the seams and push out the corners.
15. **Slip stitch** the opening closed.

16. **Top stitch** around all sides.
17. **Insert eyelets** (see Basic Flat) if you did not use ribbon loops.

18. Hang!

Tunnel Pocket with Fleece Borders

Materials

Cotton or Flannel

- 15"x 17" rectangle (hammock piece)
- **15"x 7" rectangle (top piece)**

Fleece

- 15"x 17" rectangle (hammock piece)
- **15"x 13" rectangle (top piece)**

Extras

- Thread (match to fleece)
- Eyelets or Ribbon for Loops

Finished Size

About 14" x 16"

Description

This tunnel pocket modification adds fleece borders to the blanket on top of the hammock.

Instructions

Follow the instructions for the Tunnel Pocket, except for the following:

1. Cut your fabric as shown in the "Materials" section on the previous page of this tutorial.

   The changes are highlighted in bold.

   Basically, you are reducing the width of the cotton top piece by three inches and increasing the width of the fleece piece by 3 inches, in order to create a 1 ½" border on each side of the top blanket.

2. At step 2, **pin** one long edge (15") of the cotton top piece to one long edge (15") of the fleece piece, **right sides together.**

3. **Sew** along the pinned edge and **trim seam allowances.**

4. Pull the opposite edge of the cotton across to the opposite edge of the fleece. **Pin that edge, sew, and trim seam allowances.**

5. Turn the blanket piece right side out and smooth flat so that there is 1 ½" of fleece on each finished side of the blanket. Top stitch across the folded edge of the fleece and along the cotton near the seam.

6. Continue with **Step 7** of the Tunnel Pocket tutorial and finish as usual.

This process is uses the same concept as the fleece border on the pocket hammock. See Pocket Flat with Fleece Border for pictures detailing each of these steps – each step is the same except the dimensions and sides of the fabric used may be different.

Peek-a-boo Pocket

(Also known as Hidey-Hole Pocket)

Materials

Cotton or Flannel

- (2) 15"x15" squares

Fleece

- (2) 15"x15" squares

Extras

- Thread (match to fleece)
- Ribbon for loops or eyelets/grommets

Finished Size

About 14"x14"

Description

The Peek-a-boo Pocket Flat is a pocket hammock that is completely enclosed except for a small opening hole on the top layer. This opening is generally a circle (the standard Morton's Salt canister circle works great), but other shapes can be used as well. In this example, I made the opening star shaped to correspond to the star pattern of the cotton.

Instructions

1. **Cut your fabric:** 2 pieces of 15x15" cotton and 2 pieces of 15x15" fleece. Note that in this example, I chose to use a separate print for the top of the hammock and the underside of the hammock.
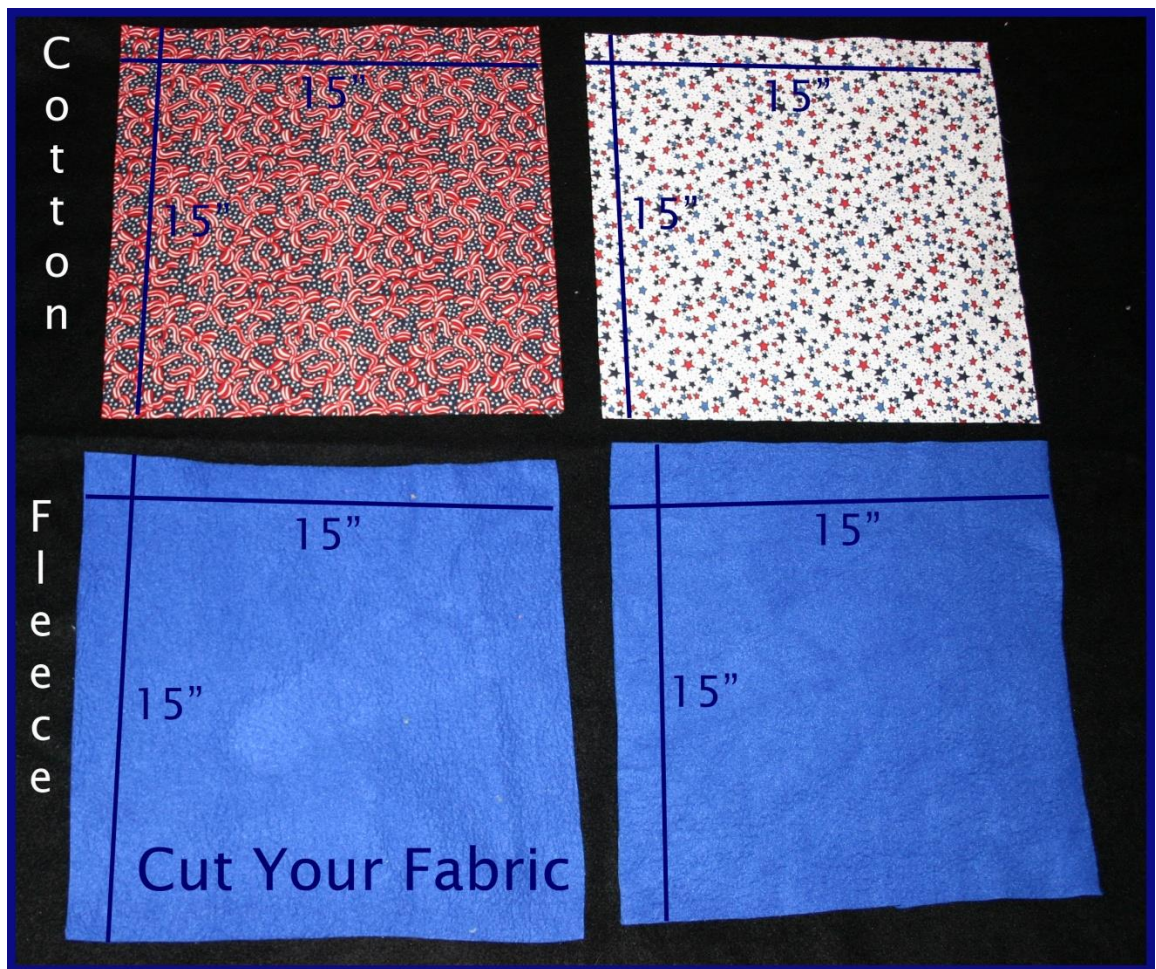
2. **Position** the top Cotton Piece over the Top Fleece Piece, **right sides together.**
3. **Pin** in place
4. **Trace** the opening onto the cotton piece. For circular opening, a Mortan's Salt canister is about the perfect size.
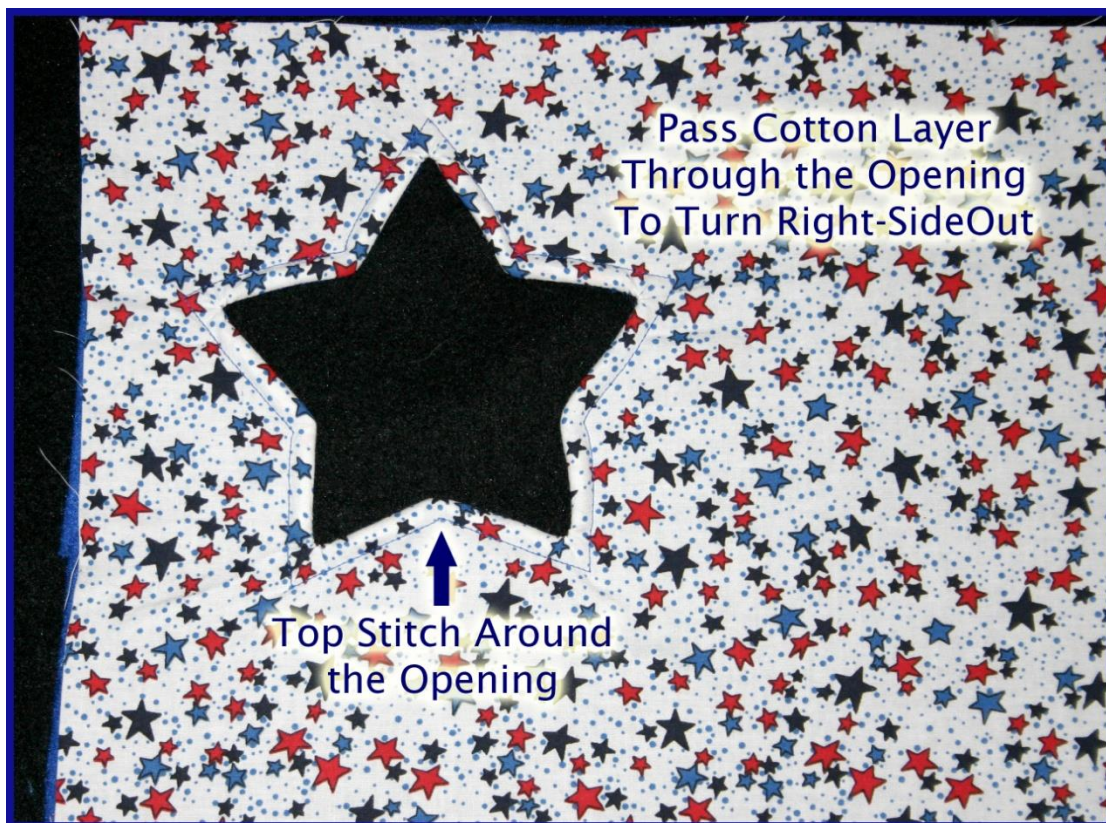

5. **Sew** along the outline of the opening.

6. **Cut** out the interior of the opening shape.

7. **Pass** the cotton layer through the opening to turn the piece **right-side out.**
8. **Smooth** out the fabric to flatten.
9. **Top Stitch** around the Opening.

10. **Lay** the top piece just you just completed with the **cotton right-side up**.
11. **Lay** the second piece of cotton on top with the **right-side down** (cotton right sides are together/facing each other).
12. **Lay** the second piece of fleece on top with the **right-side up.**

Place 2nd Cotton Piece
Over Top Piece
Right-Sides Together

Place 2nd Fleece Piece
On Top
Right-Side Up

Cotton
(Right-Side
Down)

Top Piece
Cotton Right-
Side Up

Fleece (Right-Side Up)

13. **Pin** around the edges.

14. **Sew** around all four sides. There is no need to leave an opening to turn inside out as the hammock can be turned inside out through the peek-a-boo opening.
15. **Trim** the seam allowances and thread ends.

16. **Turn** the hammock **right-side out** through the opening.
17. **Top Stitch** around the sides.
18. **Add Grommets** and **Hang!**

Bunk Bed

Also Known as Double Bunk

Materials

Cotton or Flannel

- (2) 15"x15" squares

Fleece

- (2) 15"x15" squares

Extras

- Thread (match to fleece)
- Ribbon for loops or eyelets/grommets

Finished Size

About 14"x14" top flat

Description

There is a lot of variety among bunk bed hammocks. This version combines two flats of the same dimensions to create a double decker hammock. The corners of the lower level are joined to the top level at the midpoint of each side. The excess corners are invisible because they disappear at the seam.

See Honeycomb Hammock for an alternate method of making a bunk bed hammock (follow the instructions but skip either the largest or the smallest flat). The honeycomb method works well with flats of different sizes.

Instructions

19. **Cut your fabric.**
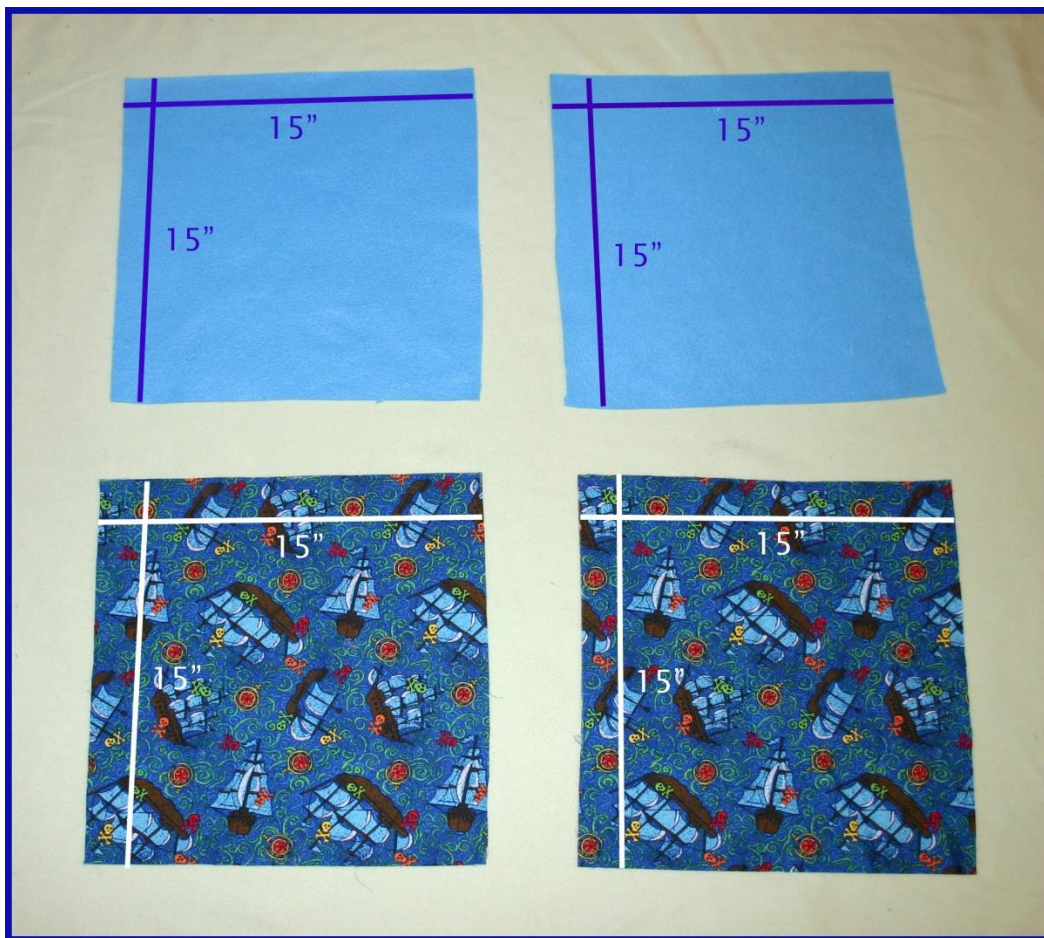
20. **Make a Basic Flat** with one piece of fleece and one piece of cotton *(refer to Basic Flat project for instructions)*. This will be your lower level. Do not add ribbon loops or

grommets/eyelets to this flat.

Make a Basic Flat with
One Piece of Fleece
& One Piece of Cotton

Do Not Add Grommets
or Ribbon Loops

21. **Position the basic flat over the cotton piece** (right side up) and rotate 45 degrees, so the corners of the flat overhang the middle of each side.

22. **Bunch the flat in the middle** so that only about ½" of the corner sticks out.

Corners of Flat Hang over the edge by 1/2"

1/2"

Cotton
Right
Side
Up

Flat Hammock
Cotton Side Up

Bunch Up Excess Fabric
In Middle
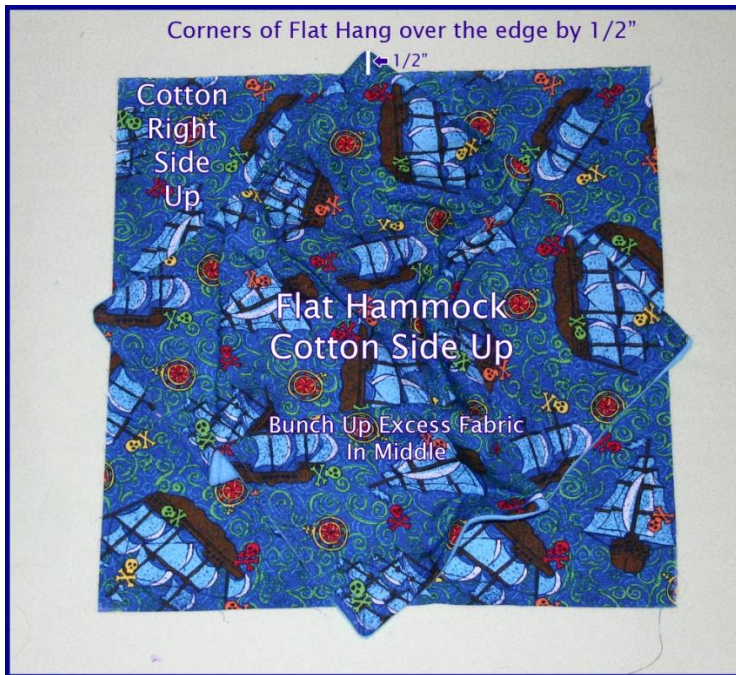
23. **Pin Fleece** to Cotton piece, **right sides together.**
24. **Add ribbon loops** if not using eyelets (see Basic Flat).
25. **Sew** around the edges of the fleece, leaving an opening large enough to turn the hammock right side out.

Corners of Flat Hammock
Extend about 1/2"

Leave a large enough
Opening to Turn
Right Side Out

Pin Fleece Over Cotton
Right Sides Together

Sew Along Line
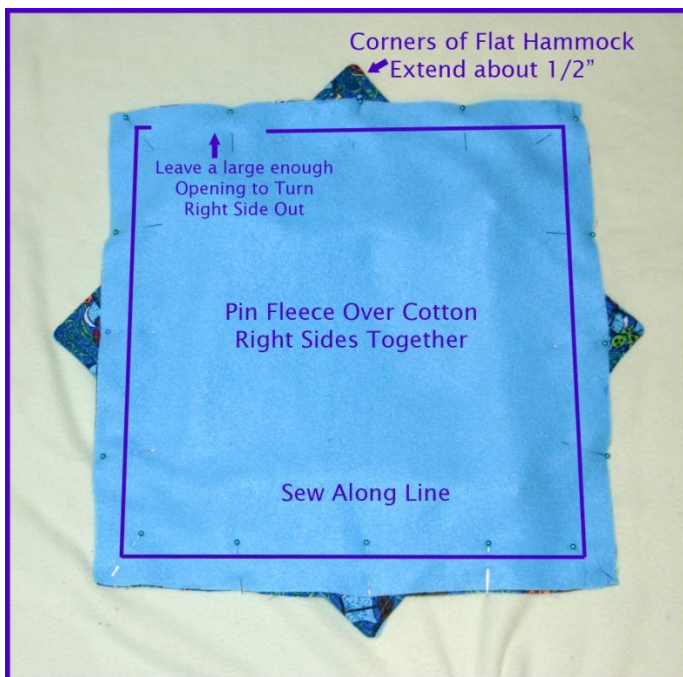
26. **Trim** excess thread and seam allowances.

27. **Turn hammock right side out**.
28. **Slip stitch** the opening closed.

29. **Top Stitch** around the top level.

Top Stitch

30. **Add eyelets/grommets** to corners if you did not use ribbon loops (See Basic Flat).

Add Grommets

31. **Hang!**

Honeycomb Hammock

Also Known as Triple Bunk

Materials

Cotton or Flannel

- (1) 10"x10" square
- (1) 14"x14" square
- (1) 17"x17" square

Fleece

- (1) 10"x10" square
- (1) 14"x14" square
- (1) 17"x17" square

Extras

- Thread (match to fleece)
- Ribbon for loops or eyelets/grommets

Options

- Use only two levels to create a double bunk with different sized levels
- Connect the top level at the sides or at the corners.
- Hang the hammock from the sides or the corners.
- Adjust the sizes of the hammocks as desired.
- Adjust how deep into the corner you want to attach the lower hammock to the middle hammock to make it hang higher/lower.
- Attach the top hammock fleece side up or cotton side up.

This variation used squares cut to 10", 13", and 15". The grommets were placed in the sides of the top level instead of the corners to make the top hammock act more as a canopy than a level. The lower level was attached deeper into the corner, making it hang closer to the middle level.

Instructions

1. **Cut your fabric.**
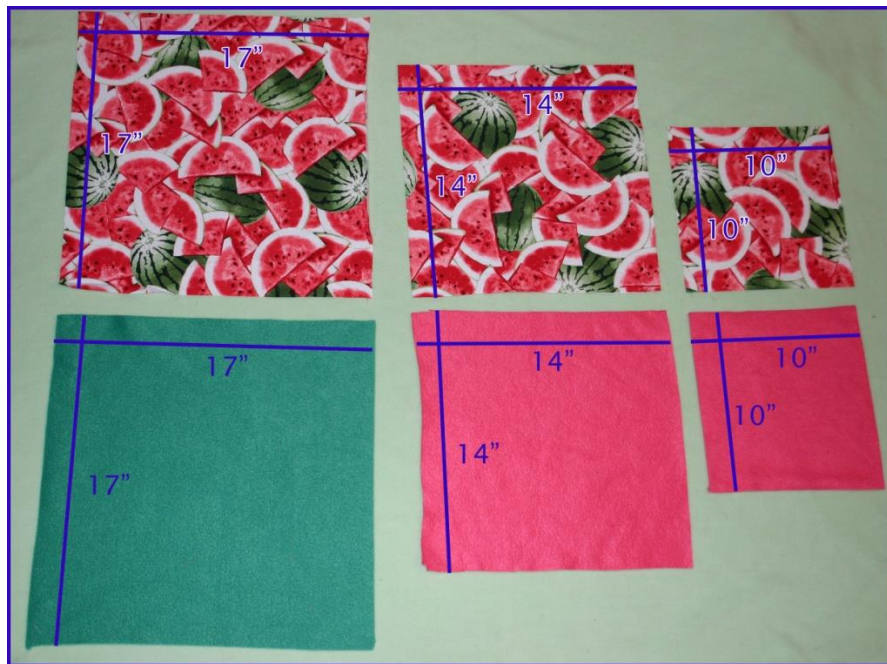
2. **Make 3 Basic Flats.** If you will be hanging your honeycomb using ribbon loops, add your loops to the smallest flat. Do not add grommets to any of the hammocks. See Hanging a Honeycomb for information about where to place the loops (corner or midpoints).
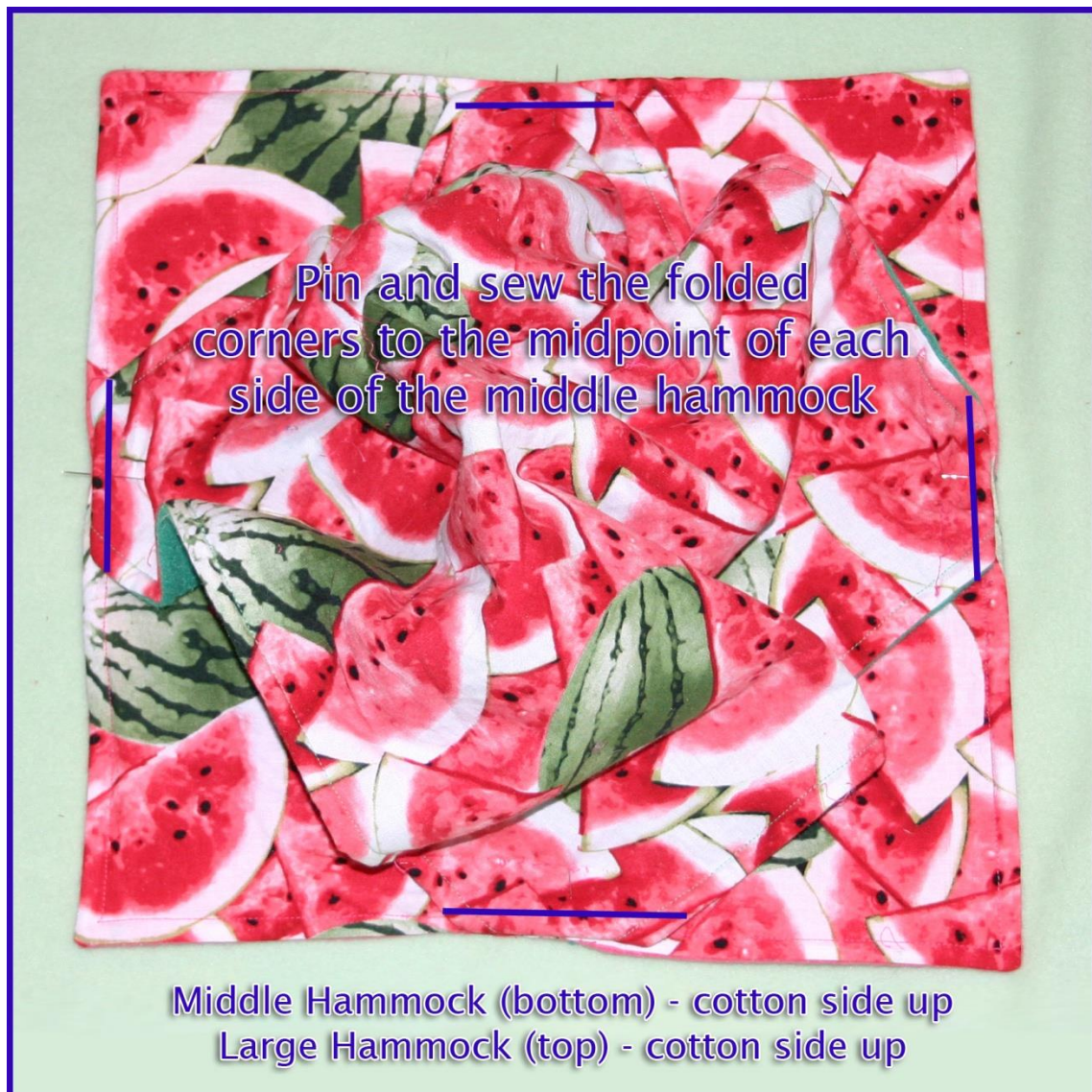
3. Place the largest flat fleece side up. **Fold** each corner of the largest flat in toward the center.

Fold the corners in just a tiny amount as shown if you want the lower level of the hammock to hang lower/deeper. Fold the corners in more if you want the lower level of the hammock to hang higher/more shallow.

4. Place the Middle Flat cotton side up. Place the Largest Flat cotton side up on top of the Middle Flat. **Pin** the folded corners of the Largest Flat to the midpoint of each side of the Middle Flat. **Sew** along the edge of each folded corner.

Pin and sew the folded corners to the midpoint of each side of the middle hammock

Middle Hammock (bottom) - cotton side up
Large Hammock (top) - cotton side up

Bottom and Middle Levels
After Corners are Sewn

Note: At this point, you have a Double Bunk. If you like, you can grommet the corners of the top flat and you are done. Or, continue to attach the third level to make a Honeycomb.

5. **Pin** the corners of the smallest flat to the corners of the middle flat and sew about 1 inch along each side of the corner. If you are using ribbon loops to hang the hammock and you forgot to sew them in when you made the top flat, you can add the ribbon loops now by inserting them between the top and middle level corners.

Pin the corners of the smallest flat
to the corners of the middle flat and sew
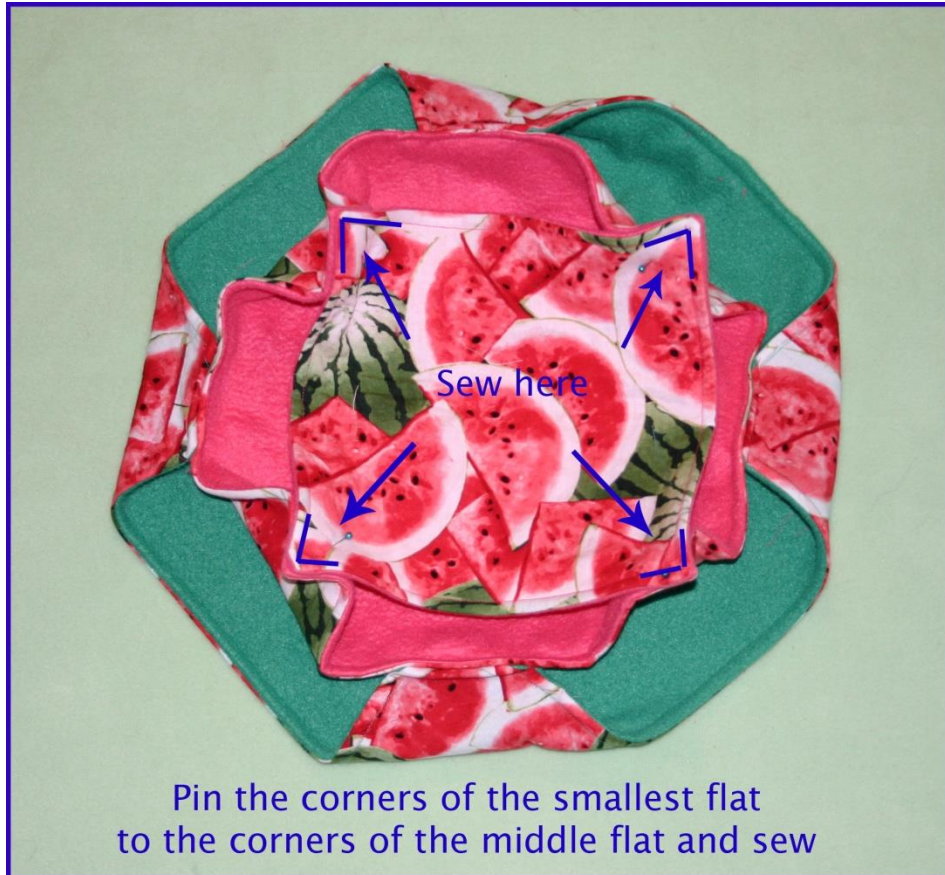
NOTE: If you prefer, you can attach the middle flat to the top flat the same way that you attached the bottom flat to the middle flat: by folding the corners and sewing the folded corners to the midpoints of the sides of the top flat.

Also, while honeycomb hammocks usually are made with the top flat attached cotton-side up (it gives the honeycomb a sort of closed-in look with an inner fleece lining), you can also attach the top hammock fleece side up if you prefer.

Honeycomb after sewing corners
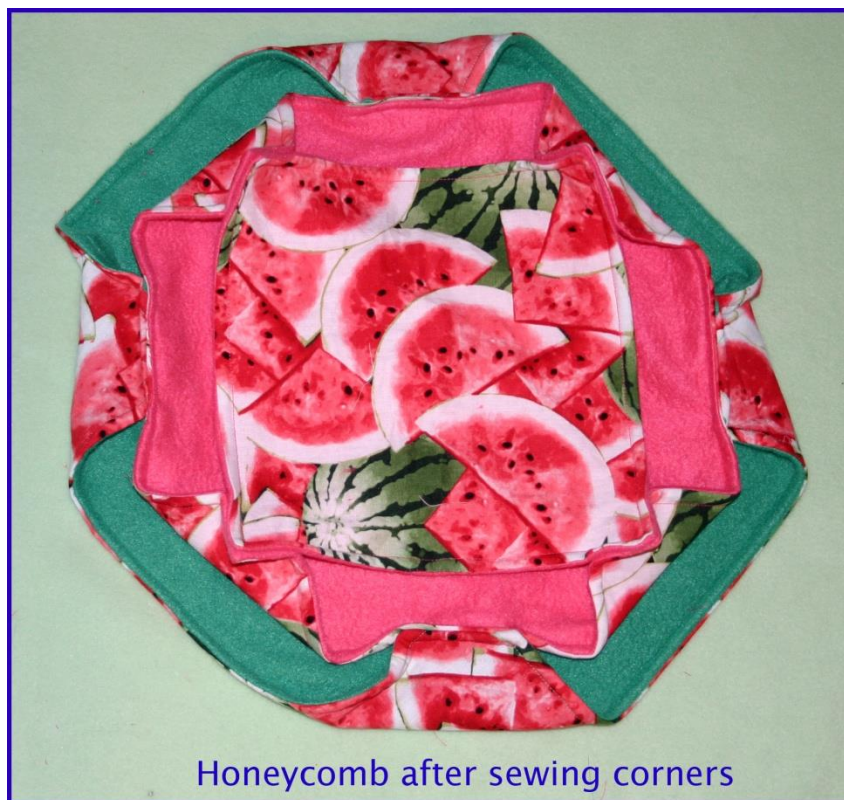
6. **Insert Grommets/Eyelets** in the corners of the top/middle level if you did not use ribbon loops. Or put the grommets in the midpoints of each side if desired.

Finished Honeycomb

Add Grommets to Top Corners

7. **Hang!**

Hanging a Honeycomb: *Honeycombs are usually hung from the corners of the top level, but you can also hang it from the midpoint of each side of the top level. The top level becomes more of a roof over the middle level than a level in its own right.*

Double Decker

Materials

Cotton or Flannel

- (1) 13" x 20" rectangle

Fleece

- (1) 13" x 20" rectangle

Extras

- Thread (match to fleece)
- Grommets

Finished Size

7"x12" top deck

Options

Make the tube as long as you like – replace the 13" side with the desired length + 1" (for seam allowances). Make the hammock wider or fall deeper by adding length to the 20" side. The

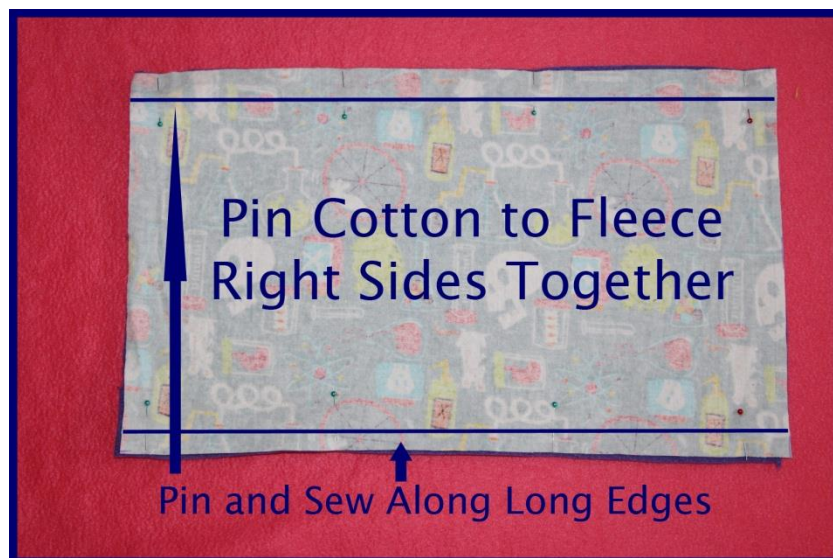dimensions used here make a small double decker that is perfect for hanging above a shelf in a Martins R695 cage.

Instructions

1. **Cut your fabric.**

2. **Place** Cotton over Fleece, **Right Sides Together.**
3. **Pin** along both long edges.

4. **Sew** along the long sides only, leaving the short sides open.
5. **Trim** seam allowances and cut loose threads.

Trim Seam Allowances

6. Turn hammock **Right-Side Out.**
7. **Top Stitch** across the finished edges.

Turn Hammock Right Side Out

Top Stitch Across Finished Edges

8. **Fold** the hammock in half, **cotton side together on the inside, fleece on the outside,** bringing the short raw-edged sides together.
9. **Pin** along the raw side.
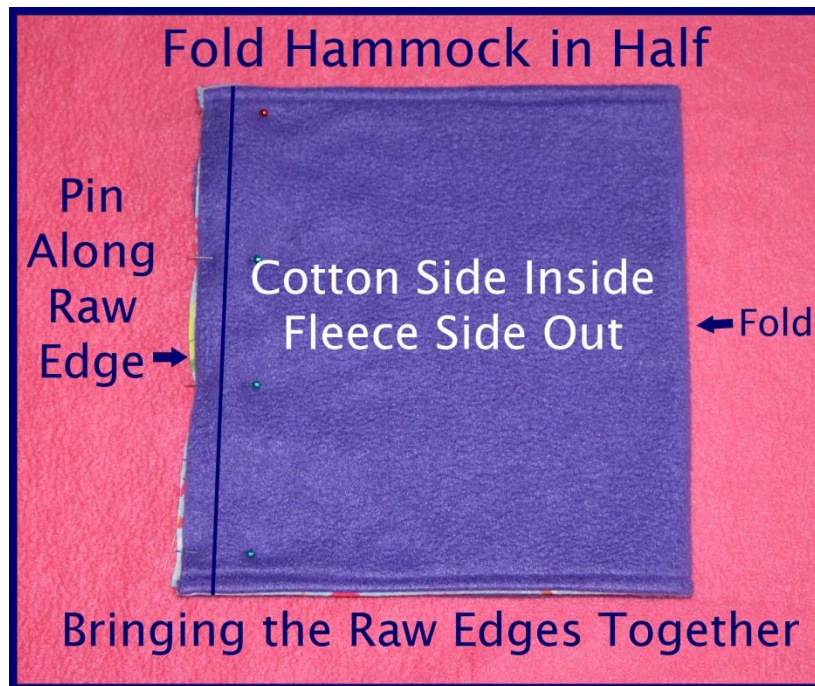
10. **Turn** hammock **cotton-side out.**
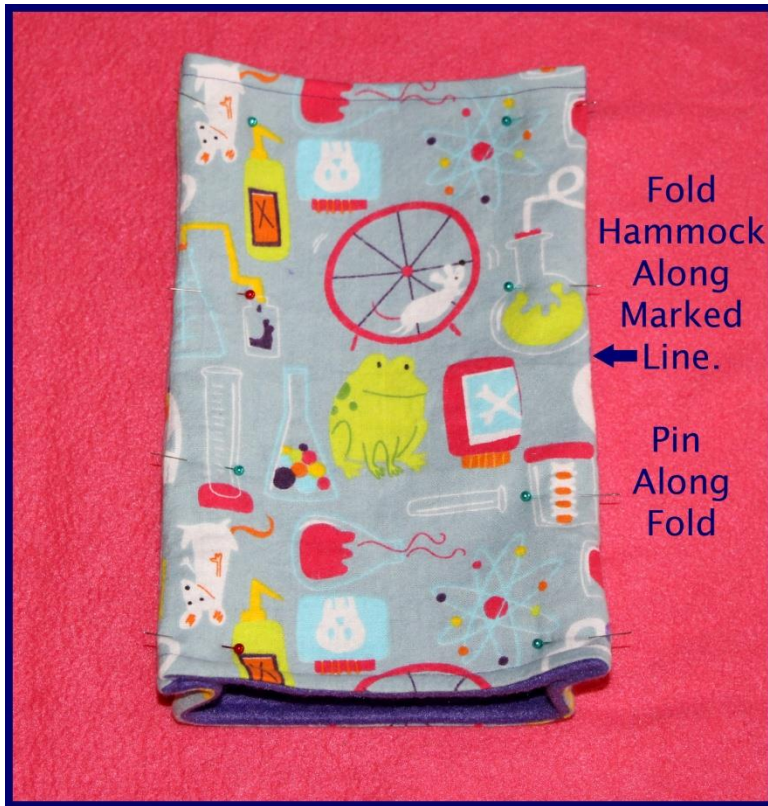11. **Flatten** hammock along seam.

12. **Pin** along the seamed edge.
13. **Measure** 7" from the seamed edge (or the desired width of the top deck if you are making a larger hammock).
14. **Mark** a line at this distance with chalk or a disappearing ink marking pen.

15. **Fold** hammock along the line you just marked.
16. **Pin** along the fold.

Fold
Hammock
Along
Marked
←Line.

Pin
Along
Fold

Note: At this point, you may want to lift the hammock up and check on the depth of the lower deck. If it hangs too high up, you may want to shorten the width of the top deck. If it hangs too far down, you may want to increase the width of the top deck.

17. **Sew** along both pinned edges.

Sew Along
←Edges→
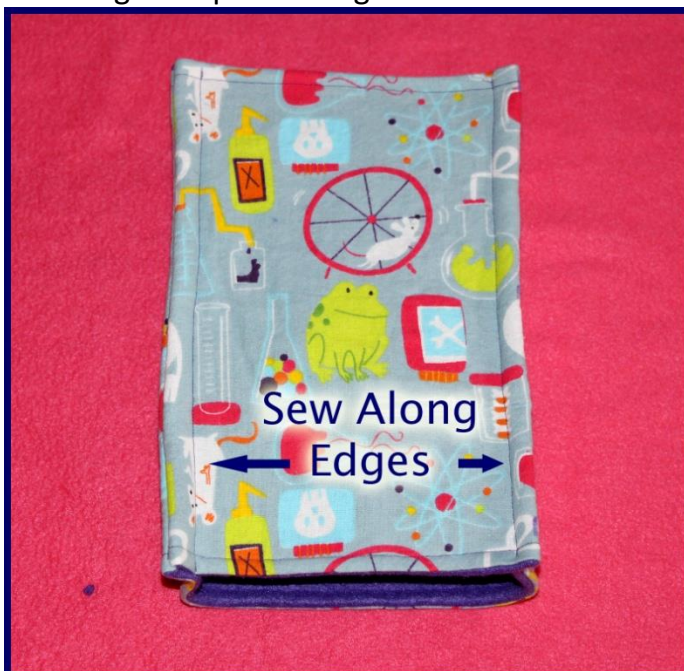
Note: If you will be placing your grommets within the seam, make sure to leave a wide enough space between the stitching and the fold for the grommet to fit.

18. **Add Grommets.**

19. **Hang!**

This tutorial example was sized to fit this space in a Martins R695 cage just right.

Double Decker with Fleece Borders

Materials

Cotton or Flannel

- **(1) 10" x 20" rectangle**

Fleece

- **(1) 16" x 20" rectangle**

Extras

- Thread (match to fleece)
- Grommets

Finished Size

7"x12" top deck

Description

This double decker modification adds fleece borders to the open ends of the hammock.

Instructions

Follow the instructions for the Double Decker, except for the following:

1. Cut your fabric as shown in the "Materials" section on the previous page of this tutorial.

    The changes are highlighted in bold.

    Basically, you are reducing the width of the cotton piece by three inches and increasing the width of the fleece piece by 3 inches, in order to create a 1 ½" border on each opening of the double decker.

2. After cutting your fabric, **pin** one long edge (20") of the cotton piece to one long edge (20") of the fleece piece, **right sides together.**

3. **Sew** along the pinned edge and **trim seam allowances.**

4. Pull the opposite edge of the cotton across to the opposite edge of the fleece. **Pin that edge, sew, and trim seam allowances.**

5. Turn the hammock right side out and smooth flat so that there is 1 ½" of fleece on each finished side of the hammock. Top stitch across the folded edge of the fleece and along the cotton near the seam.

6. Continue with **Step 8** of the Double Decker tutorial and finish as usual.

This process is uses the same concept as the fleece border on the pocket hammock. See Pocket Flat with Fleece Border for pictures detailing each of these steps – each step is the same except the dimensions and sides of the fabric used may be different.

Tube

Materials

Cotton or Flannel

- (1) 16" x 19" rectangle (or strips to make such a striped rectangle)

Fleece

- (1) 16" x 19" rectangle

Extras

- Thread (match to fleece)
- Ribbon for loops at top

Finished Size

18" long tube with wide diameter

Options

Make the tube as long as you like – cut fabric one inch longer than the desired length.
This is a wide tube. For a narrow tube, use a width of 14" or 15" instead of 16."

Instructions

1. **Cut your fabric.** If making a solid hammock, cut your cotton piece to the same size as your fleece piece and skip to **Step 3.**

2. **Making a Striped Tube**

    a. Calculate how wide you want your stripes to be and how many stripes you want. Based on the number and width of your stripes, determine how long your fleece piece needs to be.

Stripes are usually 4 or 5" wide. A tube hammock generally consists of 4-6 stripes of alternating fabric. For a hammock with (5) 4" stripes, you would need to cut five strips of fabric that are 5" wide (4" plus ½" seam allowance on each side). Your finished tube would be 20" long (5 stripes x 4" stripe width), so your fleece would have to be cut 21" long (20" plus ½" seam allowance on both sides).
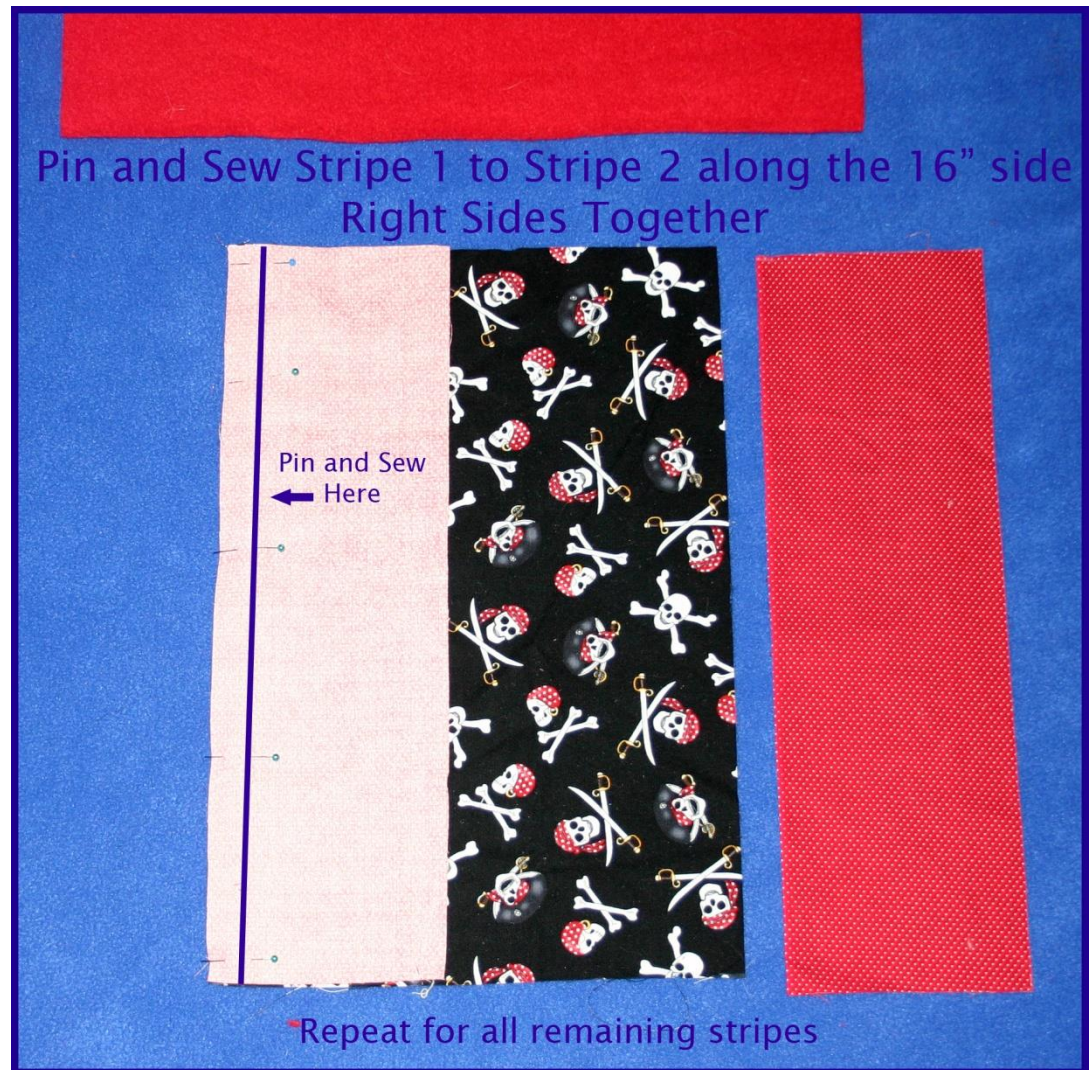
In this tutorial, I am going to make an 18" hammock with 4"-long striped cuffs on each side. That means, I need to cut three stripes: a 5" stripe (4" finished width plus ½" seam allowance on each side) for the left cuff, an 11" stripe (10" finished width plus ½" seam allowance on each side) for the main length of the tube, and a 5" stripe (4" finished width plus ½" seam allowance on each side) for the right cuff.

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    b. Calculate how roomy you want your tube to be. For a more roomy tube, use a 15" circumference (cut to 16" to account for seam allowances). For a tighter fit, you can go down to 13" (cut to 14" to account for seam allowances). I prefer a 15" diameter for male rats.

c. Cut your stripes from cotton and cut your fleece based on the total size of the finished tube.

d. **Pin** the first strip to the second stripe along the 16" edge, **right sides together.**

e. **Sew** along the 16" edge only. Trim seam allowances.

Pin and Sew Stripe 1 to Stripe 2 along the 16" side
Right Sides Together

Pin and Sew
Here

Repeat for all remaining stripes

f. **Repeat d and e** for all stripes until you have one piece of cotton the same size as your fleece.
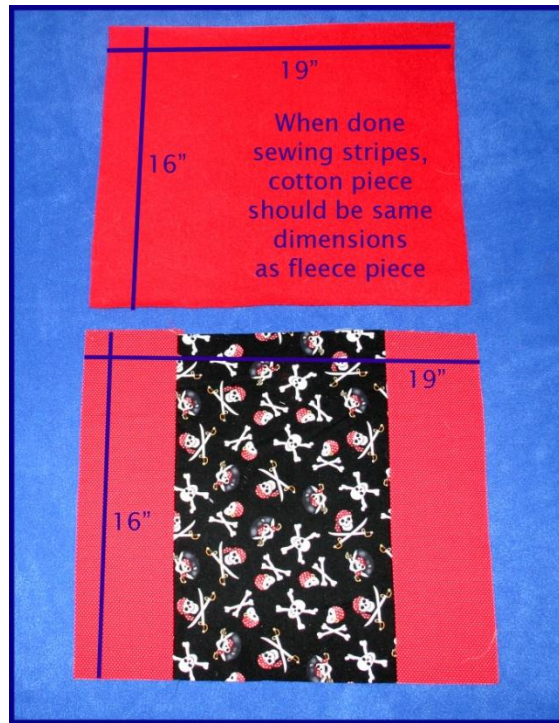
3. **Pin** the cotton piece to the fleece piece, **right sides together**, along the 16" sides only.

4. **Sew** along the two pinned sides only. This will be the opening of the tube.
5. **Trim** excess thread and seam allowances.

6. Turn tube **right side out.**
7. **Top stitch** along the two 16" sides.

8. **Pin** ribbon loops about every 4 or 5 inches along the top raw edge. Pin with the cut edges of the ribbon aligned with the raw edge, and the fold of the ribbon pointing toward the opposite edge.

9. **Fold** the tube in half, with the raw edges meeting, **cotton sides together, fleece side out.** Make sure the stripe seams line up with each other so that the stripes meet perfectly at the seam when the tube is sewn.
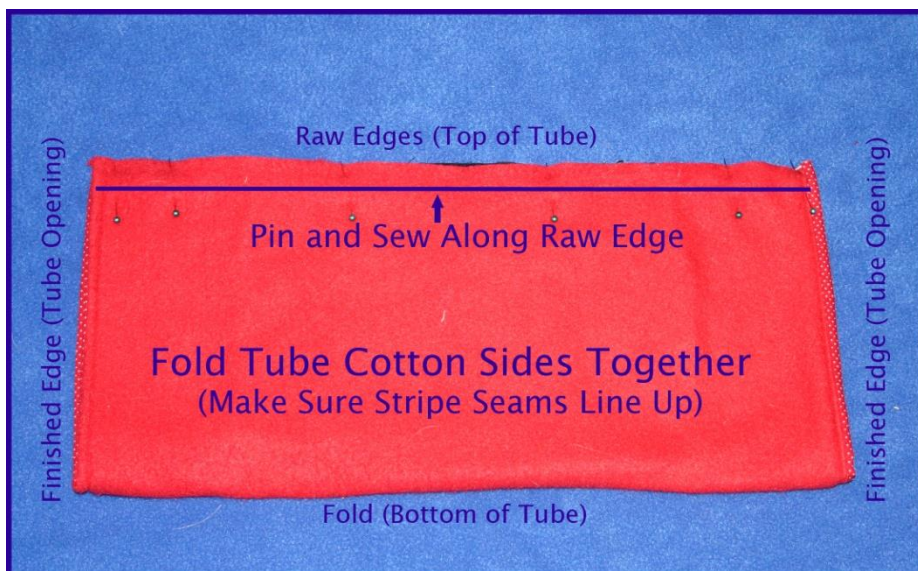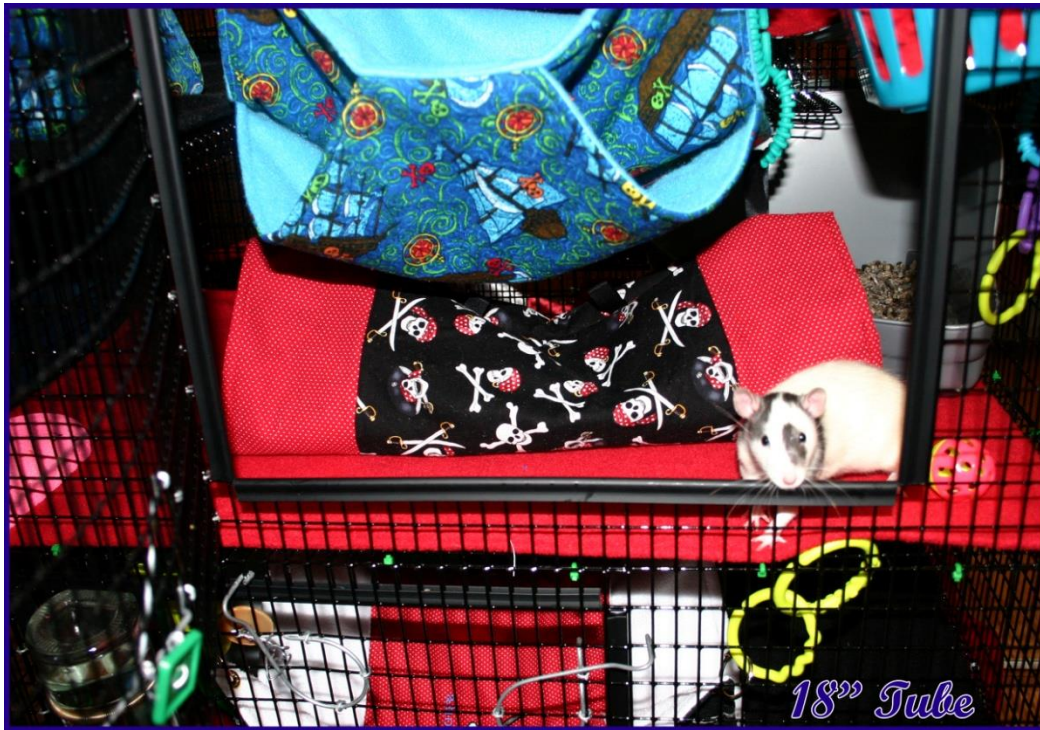
10. **Trim** the seam allowance.

11. Turn the tube **right side (cotton side) out.**

12. **Hang** as a hammock or **Rest** on the floor of the cage.

18" Tube positioned on floor of cage.

24" Tube hung as a hammock, leading to a basket.

Tube with Fleece Borders

Materials

Cotton or Flannel

- **(1) 16" x 16" rectangle (or strips to make such a striped rectangle)**

Fleece

- **(1) 16" x 22" rectangle**

Extras

- Thread (match to fleece)
- Ribbon for loops at top

Finished Size

18" long tube with wide diameter

Description

This tube modification adds fleece borders to the open ends of the tube

Instructions

Follow the instructions for the Tube, except for the following:

1. Cut your fabric as shown in the "Materials" section on the previous page of this tutorial.

   The changes are highlighted in bold.

   Basically, you are reducing the length of the cotton piece by three inches and increasing the length of the fleece piece by 3 inches, in order to create a 1 ½" border on each side of the tube.

2. After cutting your fabric (or assembling your stripes), **pin** one short edge edge (16") of the cotton piece (the edge parallel to the stripes if your tube is striped) to one short edge (16") of the fleece piece, **right sides together.**

3. **Sew** along the pinned edge and **trim seam allowances.**

4. Pull the opposite edge of the cotton across to the opposite edge of the fleece. **Pin that edge, sew, and trim seam allowances.**

5. Turn the hammock right side out and smooth flat so that there is 1 ½" of fleece on each finished side of the hammock. Top stitch across the folded edge of the fleece and along the cotton near the seam.

6. Continue with **Step 8** of the Tube tutorial and finish as usual.

This process is uses the same concept as the fleece border on the pocket hammock. See Pocket Flat with Fleece Border for pictures detailing each of these steps – each step is the same except the dimensions and sides of the fabric used may be different.

Standard Cross Tube

Materials

Cotton or Flannel

- (8) house shaped pentagrams (8" base, 7" sides, 10" height)

Fleece

- (8) house-shaped pentagrams (8" base, 7" sides, 10" height)

Extras

- Thread (match to fleece)
- Ribbon for loops at top and at openings

Finished Size

About 17.5" long each side; about 14" opening circumference.

Description

This is an X-shaped tube that is a lot of fun for the rats to explore.

I first learned to make the cross tube using the reversible design, which follows this tutorial. However, I am not a huge fan of reversible/seamless designs. They usually work best when using fleece for both inside and out, and they tend to be more difficult and sometimes less stable than seamed designs.

This is my own seamed variation of the design. The seamed design has the advantage of firmly securing the fleece lining layer to the cotton/flannel layer so that the fleece doesn't tend to separate and collapse inside the tube.

Instructions

1. **Create a Template** in the shape of a "house." The base of the house should be 8" long. The sides should be 7" long. The peak of the house should be 10" from the base.

Create a Cross Tube Template
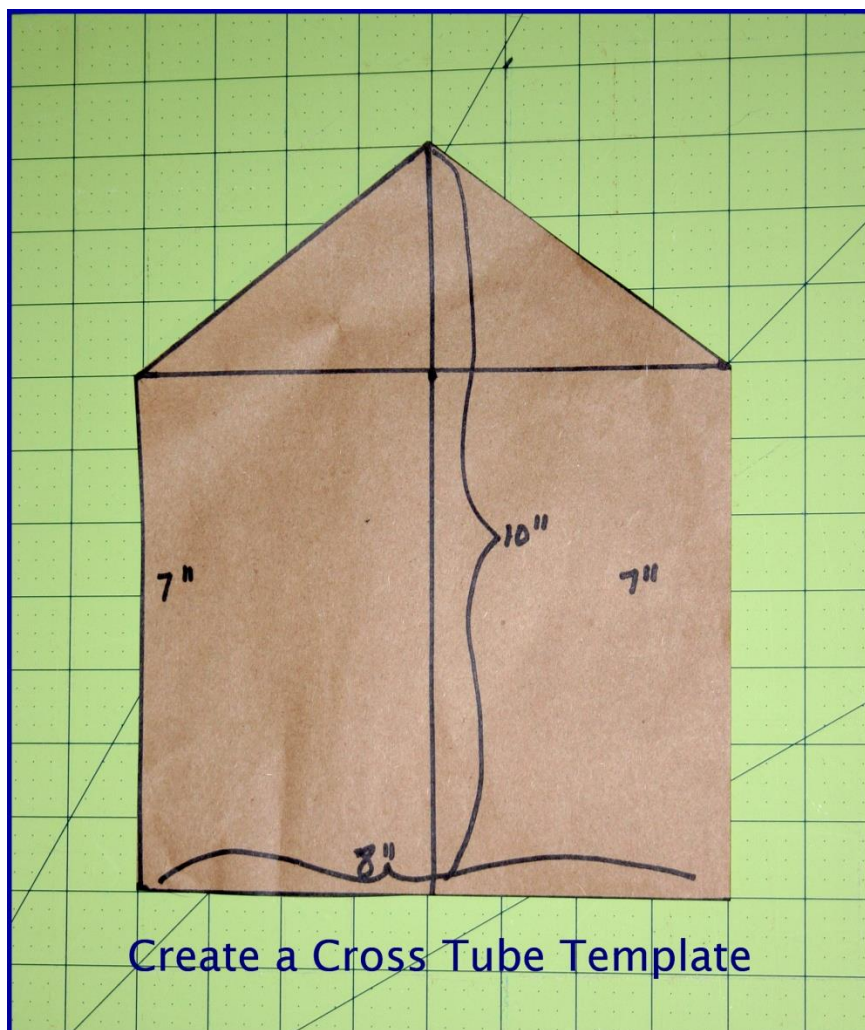
2. **Cut Your Fabric:** Using the template created in the last step, cut 8 house-shaped pentagons from your cotton fabric and 8 house-shaped pentagons from your fleece.
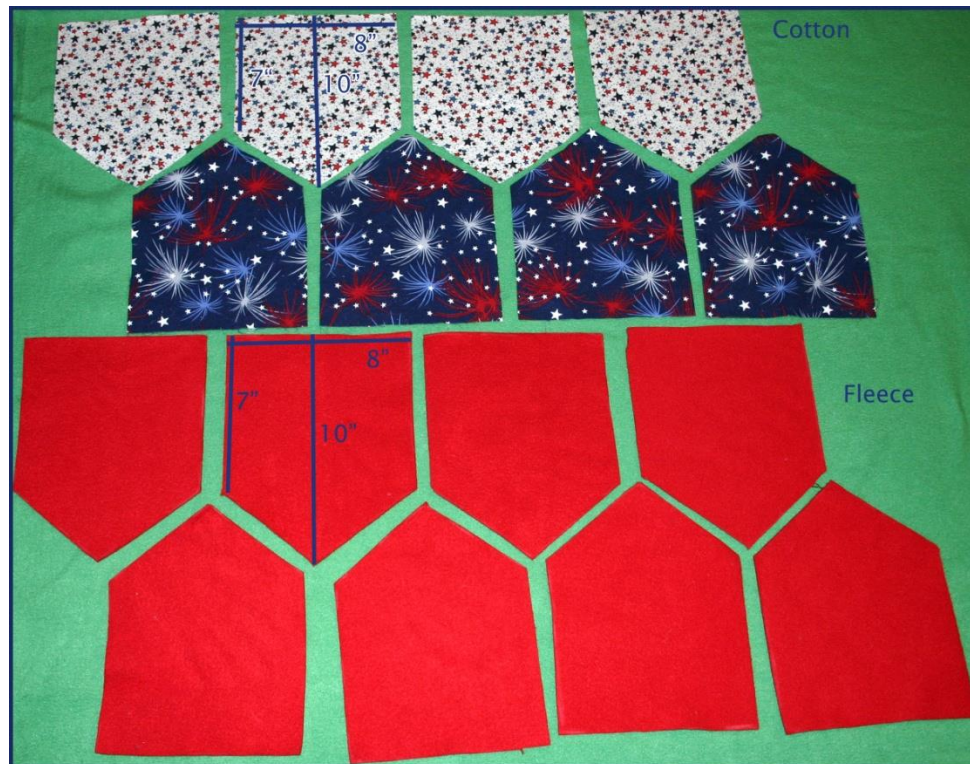
3. **Position** the cotton pieces over the fleece pieces, **right sides together**.
4. **Select** 4 pieces to make up the top of the cross and 4 pieces to make up the bottom.
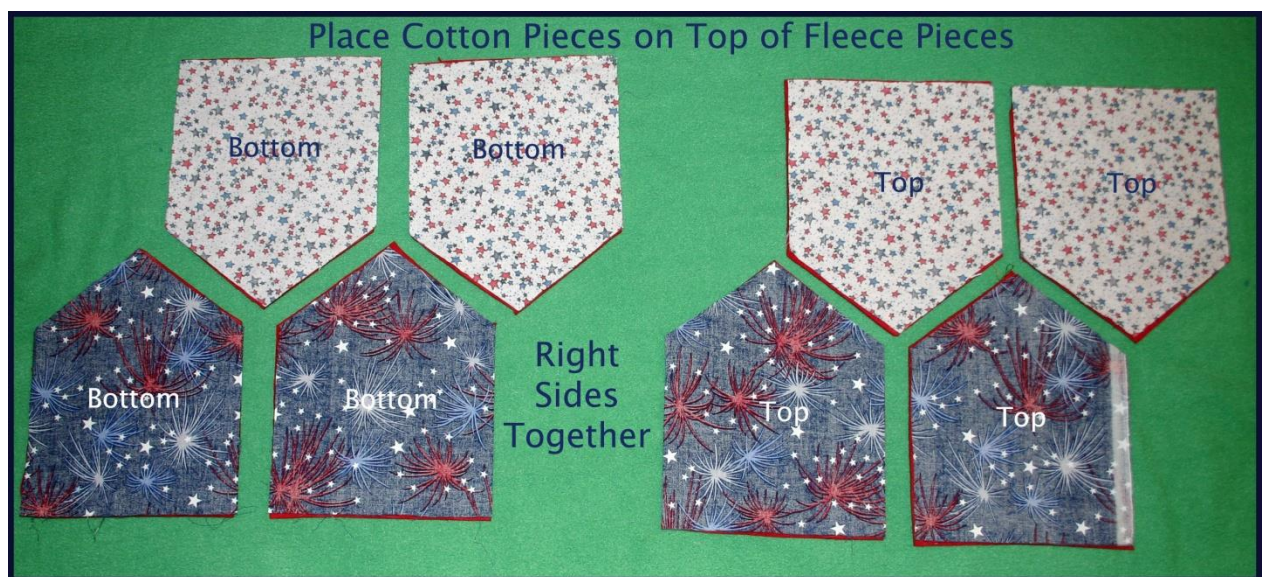
5. **Insert a Ribbon Loop** at the midpoint of the base on the "house" shape, between the cotton and the fleece, on all four **TOP** pieces only.

Pin Ribbon Loop between Cotton and Fleece at the midpoint of the base of top pieces

6. **Pin and Sew** along the base of the "house." **Repeat** for all 8 pieces (the 4 top pieces will have a ribbon loop sewn into this seam).

Pin and Sew Along Base of all 8 "House" Pieces

7. **Trim** the seam allowances.

Trim the Seam Allowances
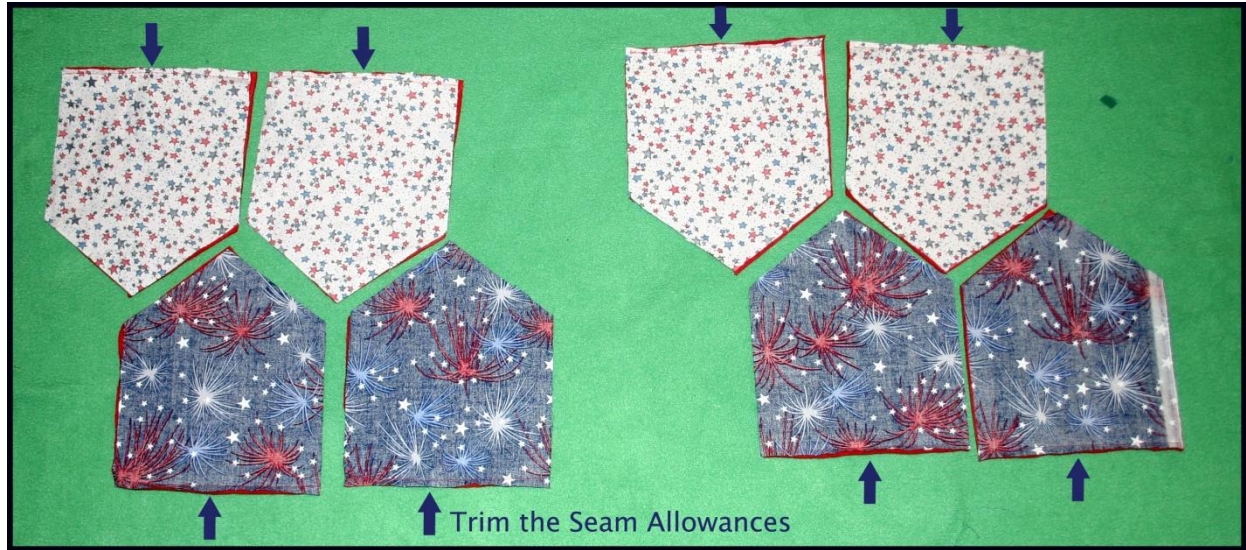
8. **Flip** the cotton side at the seam so the **Right Sides Face Out** (Wrong Sides Together)

Flip the Cotton Side over so the Right Sides Face Out

9. **Top Stitch** along the base of all eight pieces.

Top Stitch along the base only

10. **Position** 2 Top Pieces **Cotton Sides Together**. These will be adjacent legs of the cross, so if you are alternating two different cotton patterns as I am, choose one of each pattern.
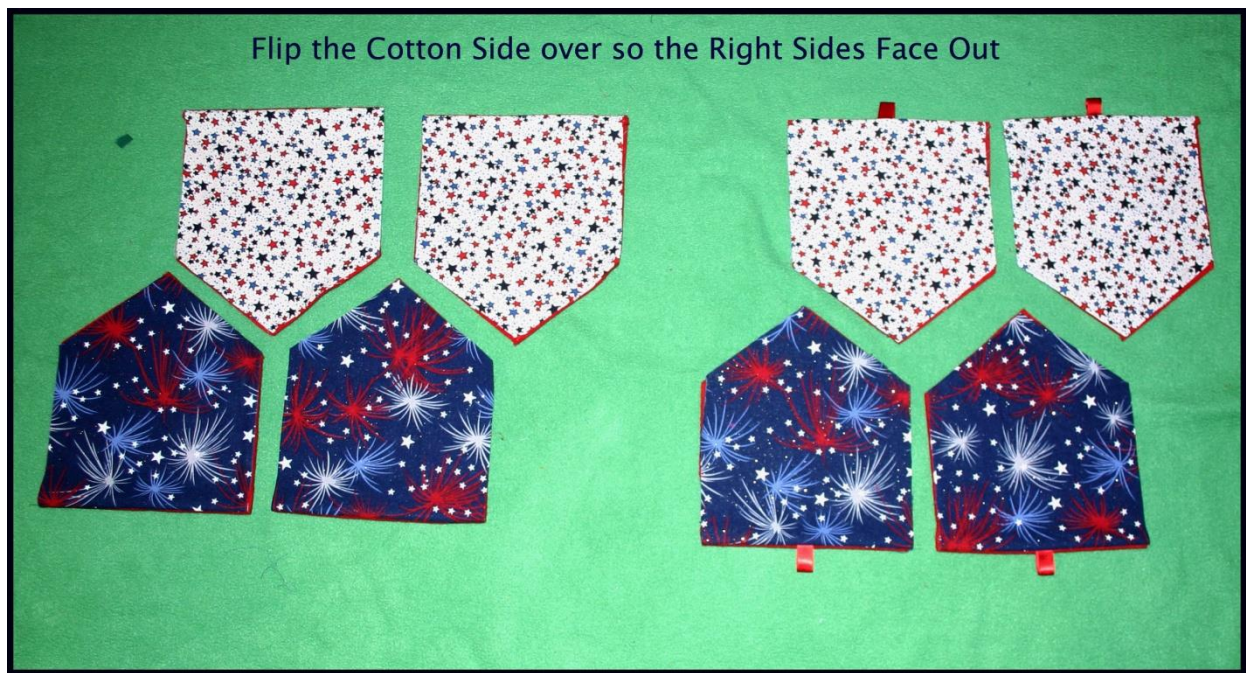11. **Position** the remaining 2 Top Pieces **Cotton Sides Together.** If you are using two different cotton patterns, place the patterns in the same order as you did for the first pair.
12. **Repeat** Steps 10 and 11 for the Bottom Pieces.
13. **Pin** along the top left side of the "Roof."

Place 2 Top Pieces Cotton Sides Together. Repeat.
Place 2 Botton Pieces Cotton Sides Together. Repeat.

Pin Along Left Side of the "Roof"

14. **Sew** along pinned edge. **Trim** seam allowances.

Sew and Trim Left Side of "Roof"
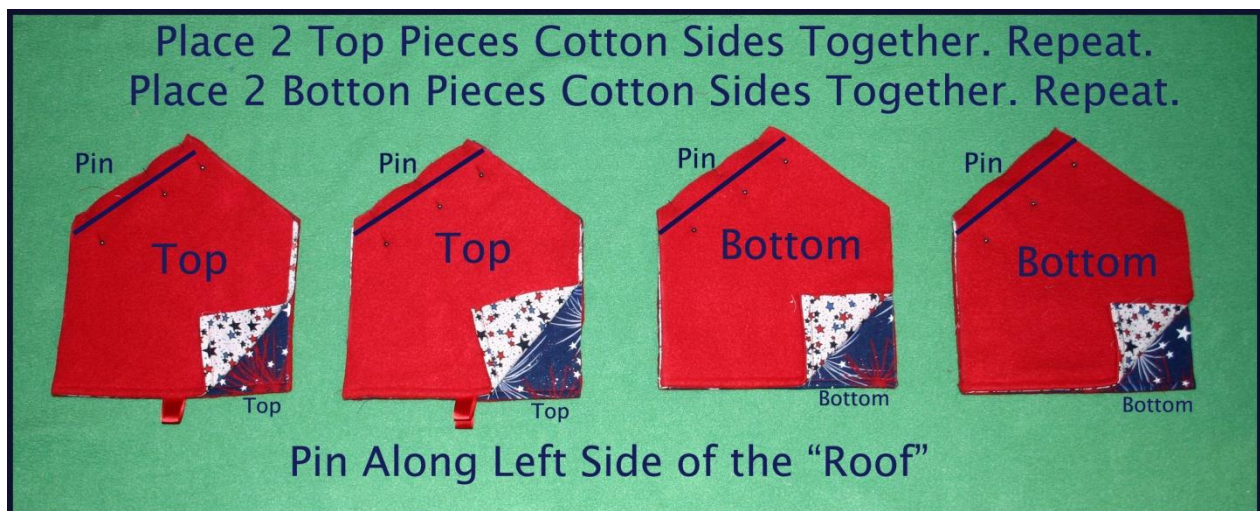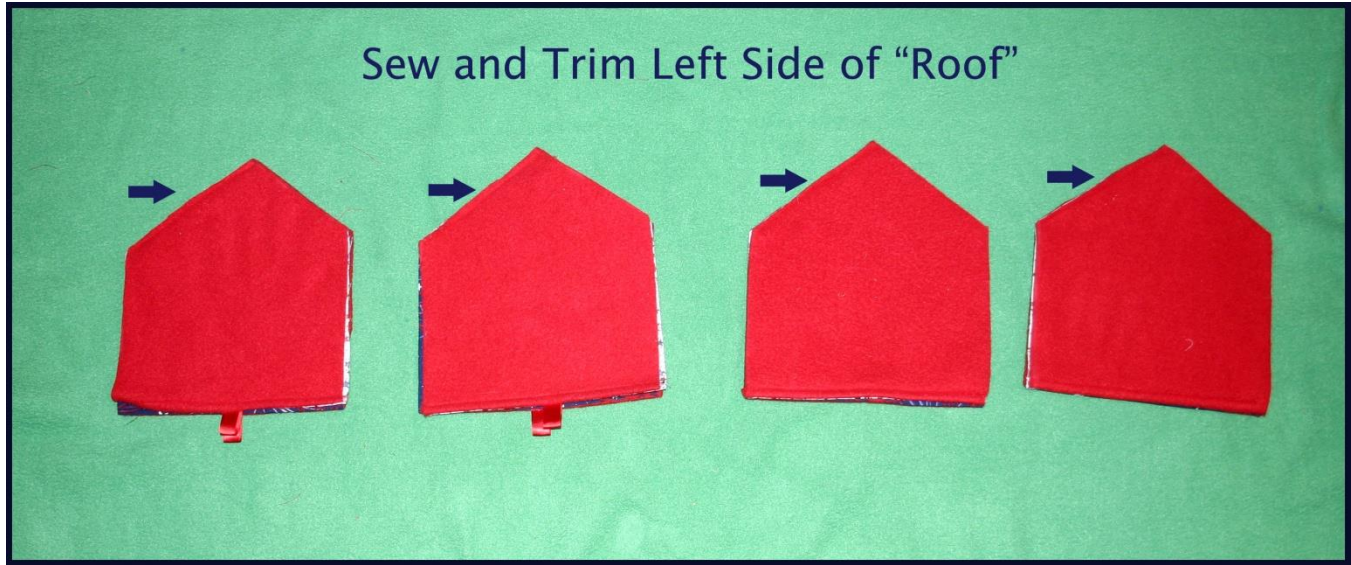
15. **Open** the pieces at the seam. You should have 4 half-cross pieces as shown below.

Open the pieces to Reveal 4 Half Crosses

Top   Top   Bottom   Bottom

16. **Position** the 2 top halves on top of each other, **Cotton Sides Together**.
17. **Repeat** for the 2 bottom halves.
18. **Pin** along the two remaining roof sides as shown below.

19. **Insert Ribbon Loop** between the cotton layers of the **Top Cross** at the center of the pinned area. In this example, I have separated the ends of the loop to create a wider loop opening.

20. **Sew and Trim** along pinned edge.

21. **Open** the pieces up to get a Top Cross piece and a Bottom Cross Piece.

22. **Position** Top Piece over Bottom Piece, **Cotton Sides Together.**

23. Make sure that the fabric pattern on the top piece overlaps the same fabric pattern on the bottom piece.
24. **Pin** along the raw edges of the cross.
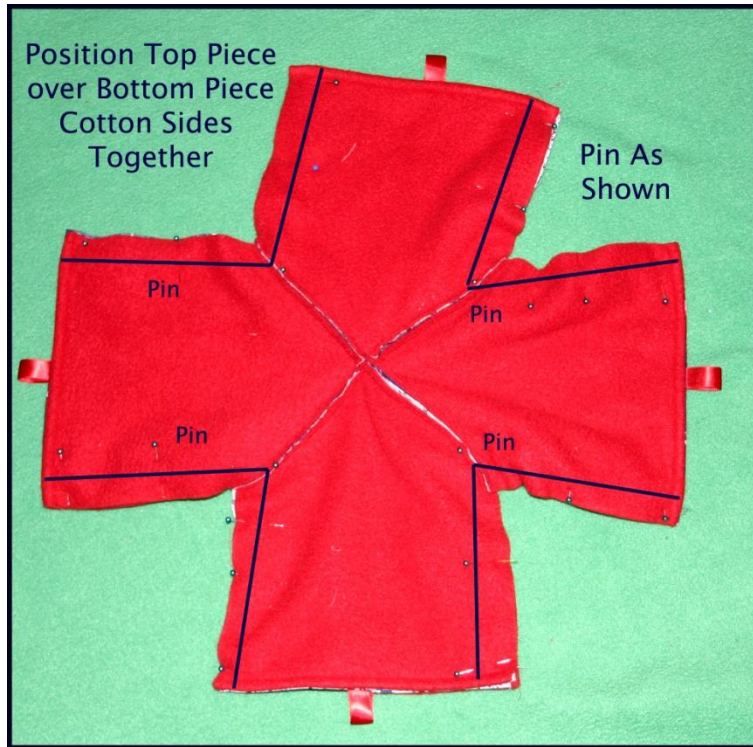
25. **Sew** along the pinned edges.
26. **Trim** the seam allowances.
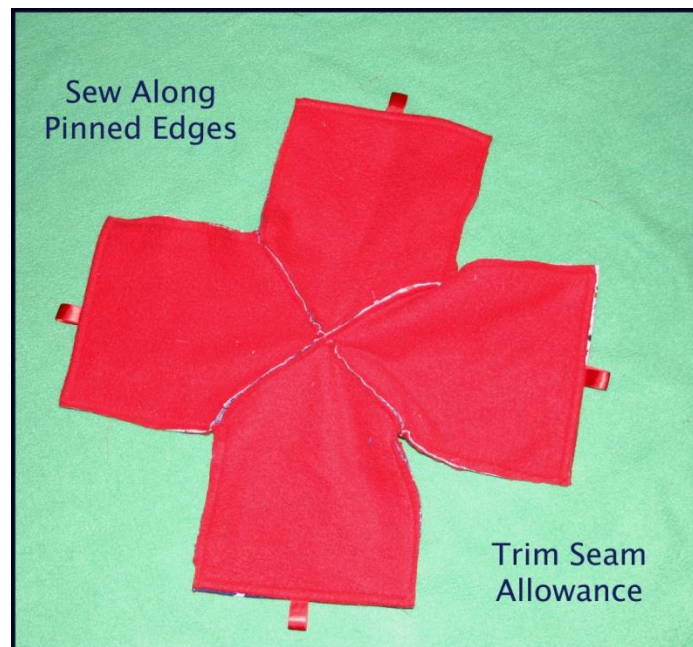
27. Turn the cross **right-side out.**

28. **Place** the cross on the floor of the cage, using the loops to hold it open.

Reversible Cross Tube

Materials

Cotton or Flannel

- (8) house shaped pentagrams (8" base, 7" sides, 10" height)

Fleece

- (8) house-shaped pentagrams (8" base, 7" sides, 10" height)

Extras

- Thread (match to fleece)
- Ribbon for loops at top and at openings

Finished Size

About 17.5" long each side; about 14" opening circumference.

Description

This is an X-shaped tube that is a lot of fun for the rats to explore. This version is the seamless design that also makes this hammock reversible (probably most useful if you use two patterns of fleece instead of one fleece and one cotton). The seamless design is very finished and professional, but as with most seamless designs, it does not have quite the support and structure that is added with a seamed design. The Standard Cross Tube tutorial that precedes this one is a bit simpler to make but is not reversible.

Instructions

29. **Create a Template** in the shape of a "house." The base of the house should be 8" long. The sides should be 7" long. The peak of the house should be 10" from the base.

Create a Cross Tube Template
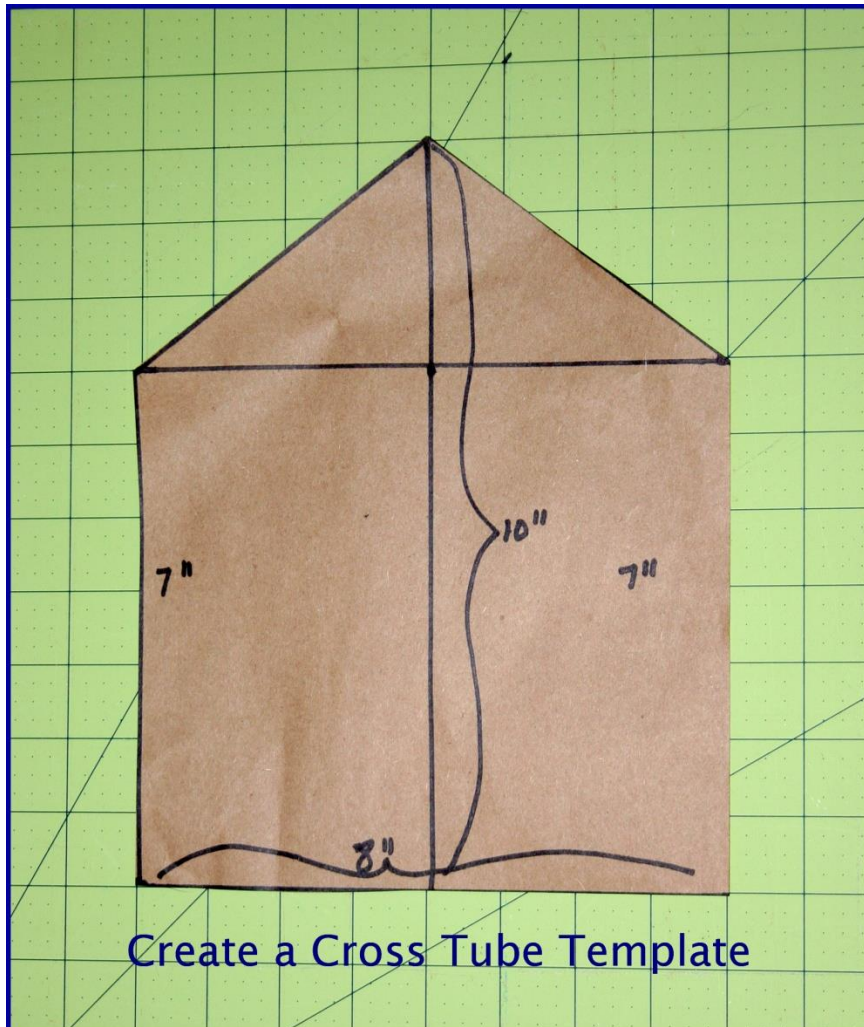
30. **Cut Your Fabric:** Using the template created in the last step, cut 8 house-shaped pentagons from your cotton fabric and 8 house-shaped pentagons from your fleece.

(Note: if you are planning to make a reversible cross tube, you may want to use two different fleece patterns instead of cotton and fleece).
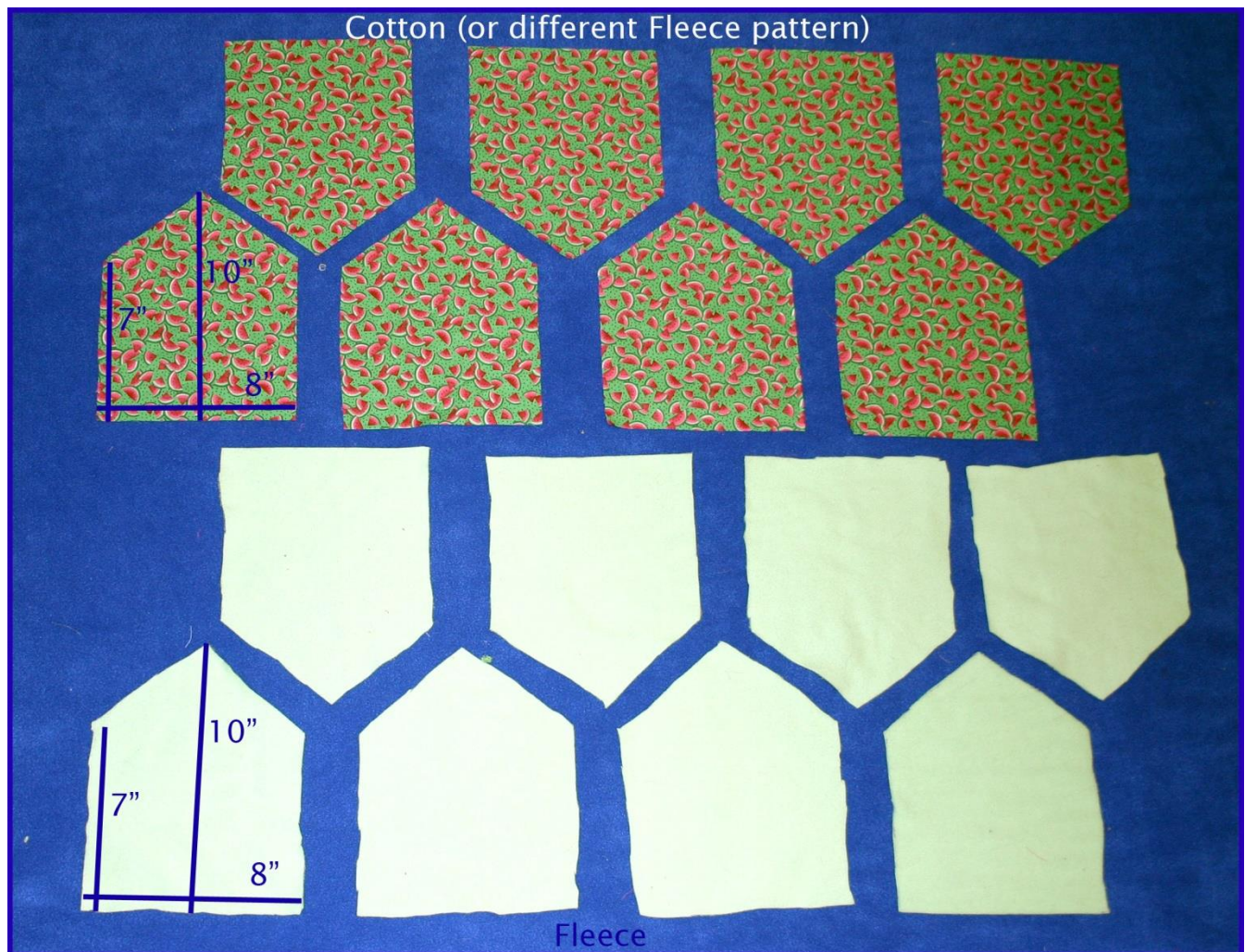
31. Place **two** cotton pieces **right sides together. Pin** along one side of the roof. Repeat for the remaining cotton pieces, then for the fleece pieces.

Place two cotton pieces right sides together.
Repeat for the remaining cotton and fleece pieces.

Cotton
Cotton
Right Sides
Together

Pin and Sew
Here

Fleece
Fleece
Right Sides
Together

Pin and Sew
Here

Pin along one side of the "roof".
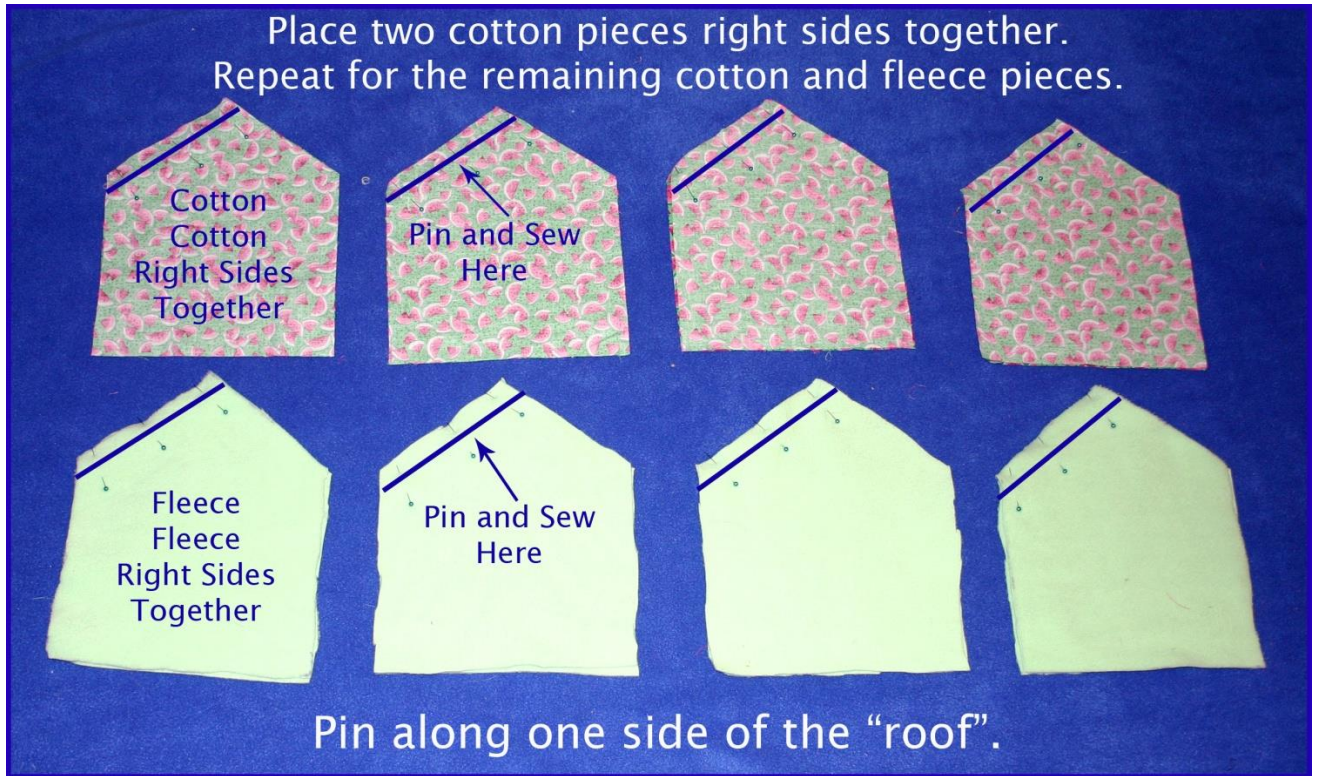
32. **Sew** along the pinned edge of the "house roof" only. Repeat for all 8 pinned pieces.

Sew here
only
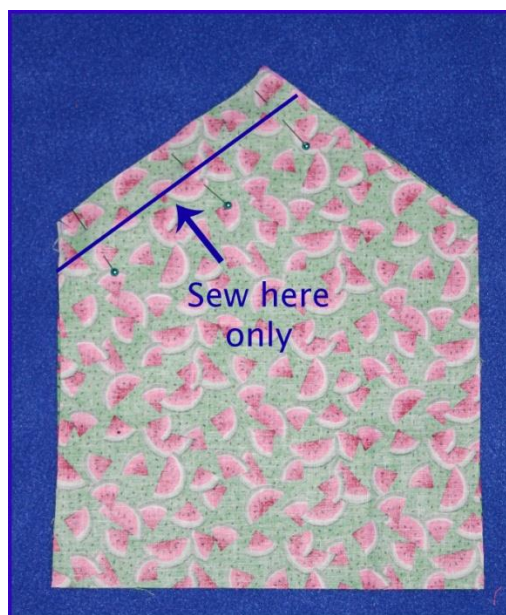
33. **Trim** seam allowances and thread ends. Open the pieces up and lay flat.
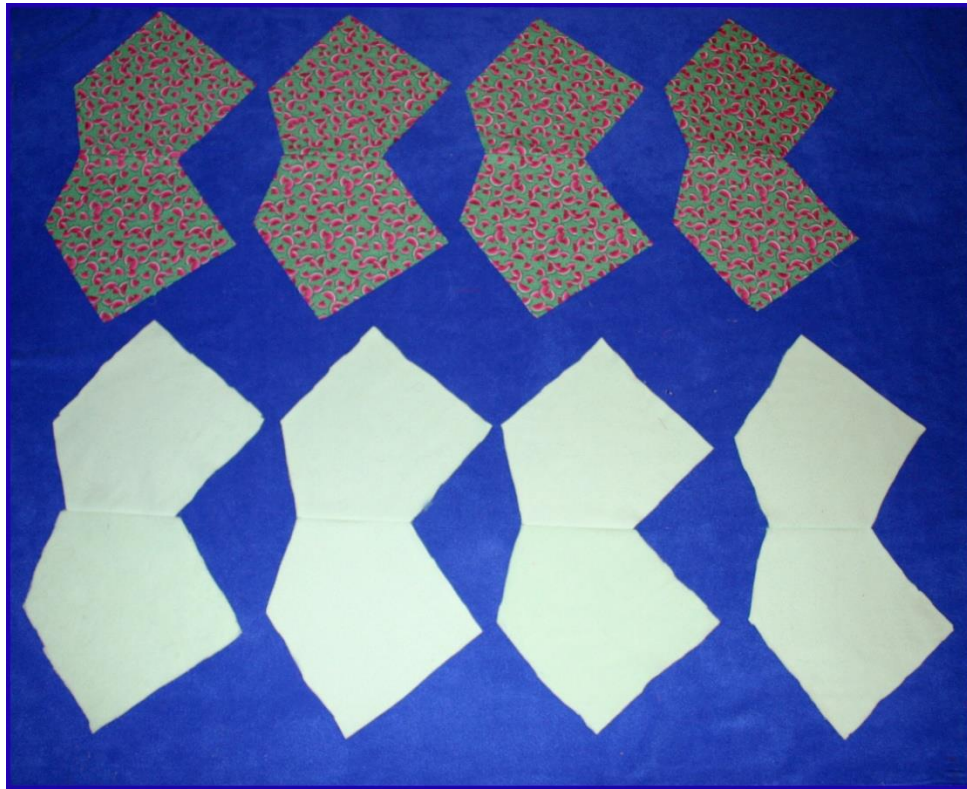
34. Place two cotton pieces **right sides together**. **Repeat** for the remaining two cotton pieces and the fleece pieces.

Place two cotton pieces right sides together.
Repeat for remaining cotton and fleece pieces.

35. Choose one set of cotton pieces to be the top of the cross tube. **Pin a ribbon loop** between the layers at the "peak of the house" such that one end of the loop is on the left of the seam and the other end of the loop is on the right.

Pin Ribbon between the layers with the bent end pointing in and the raw edges on each side of the seam

Seam

36. If you are making your cross tube reversible, **add a ribbon loop** to the top piece of the **fleece** as well, so that you will also have a loop available when you turn your tube inside out.

37. **Pin** along the unsewn edges of the "house roof." Make sure that the seam in the middle is perfectly aligned on the top and bottom. **Sew** along the pinned edge. Repeat for all 4 sets of pieces.
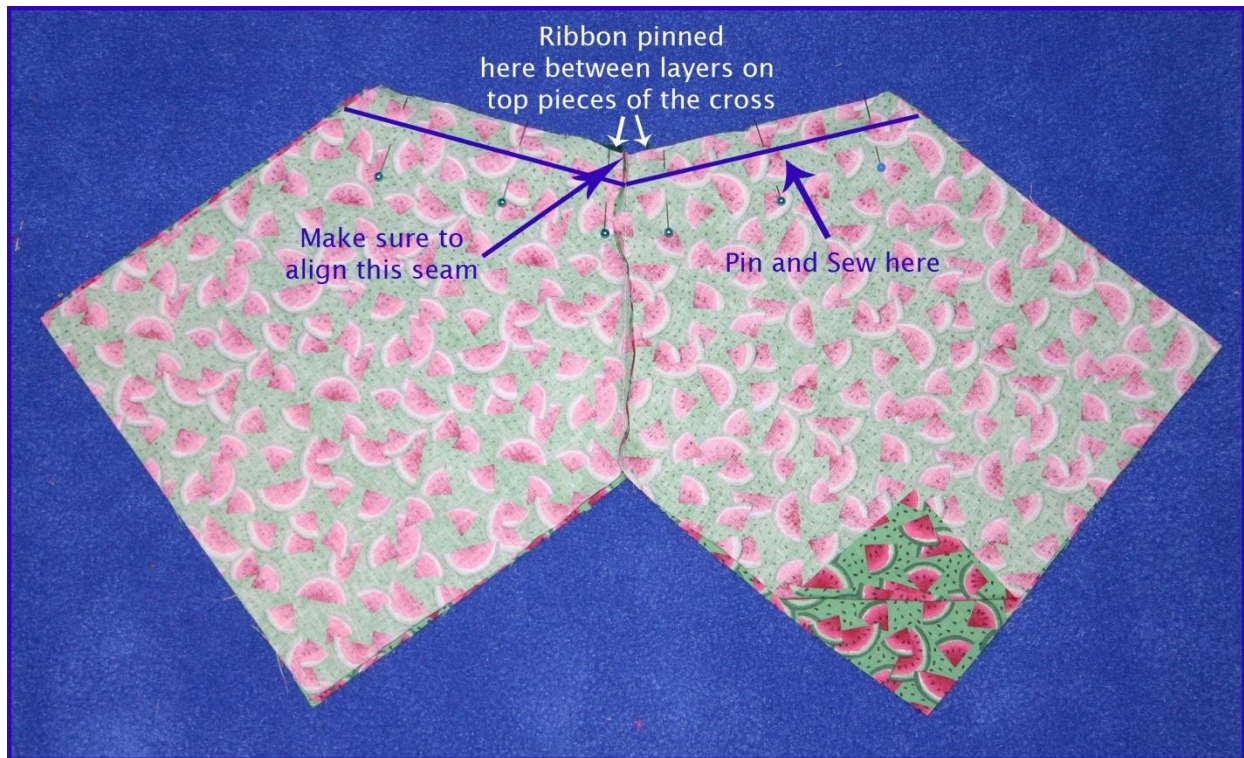
38. **Trim** seam allowances and thread ends and open up piece to make a cross.

39. Place the cotton pieces **right sides together**.
40. **Pin** along the lengths of the legs of the cross. Do not pin across the openings. **Align** the seams in the corners so that they meet.
41. **Sew** along the lengths of the legs of the cross.
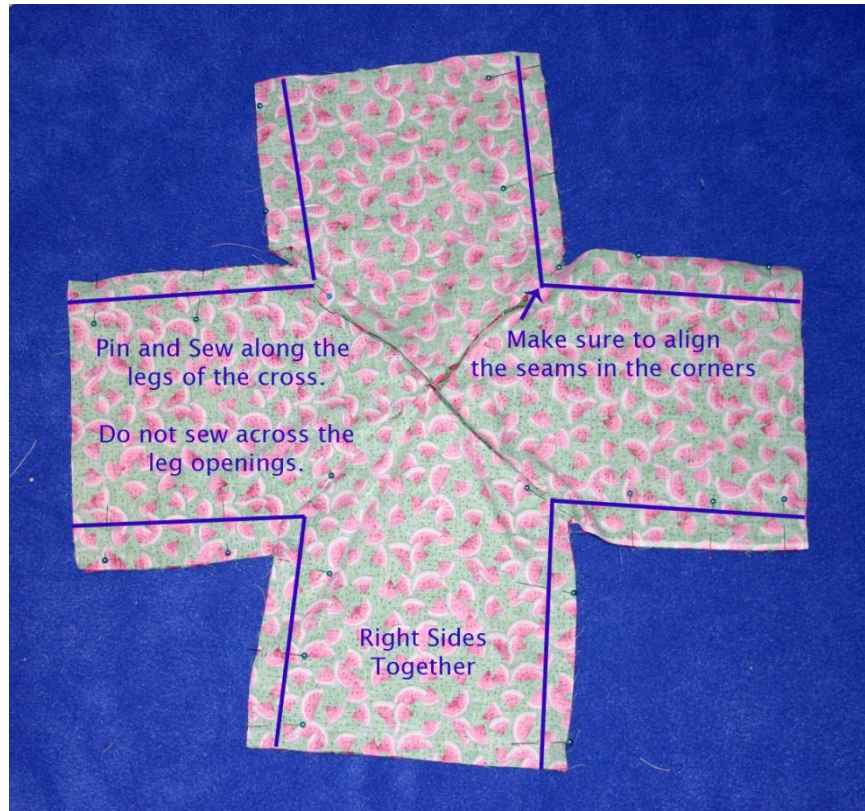
42. **Trim** seam allowances and thread ends.

43. **Repeat** to make the fleece/inner cross.

44. Turn the cotton cross **right side out**. Leave the fleece cross **inside out.**

Turn the cotton cross right side out
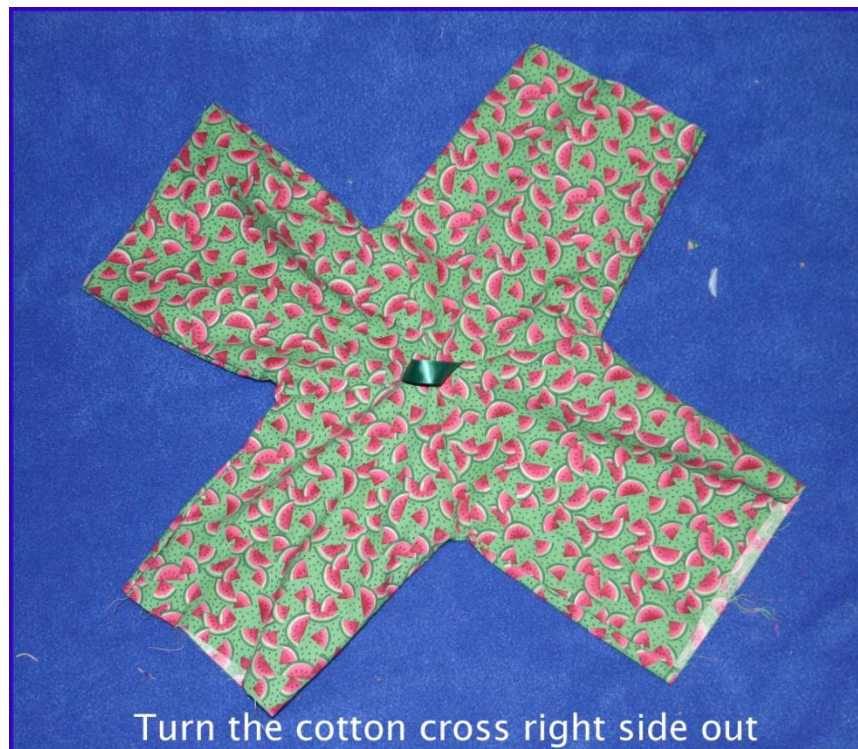
45. **Insert** the inside out fleece cross inside the right-side out cotton cross.

Insert fleece cross inside cotton cross

Cotton - right-side out
Fleece - inside out

If you put a loop on the fleece cross, make sure the loop side is on top.

Note: If you are making a reversible cross, make sure the inner cross is inserted inside out, but with the loop on the top piece of the cross pointed down into the center of the cross. Basically the loop on the inner piece should be on the same side as the loop on the outer piece.

46. To finish off the openings of the tube, **fold ½" of the inner fleece out** toward the outer cotton.

Fold up the inner fleece toward the outer cotton

47. **Fold ½" of the outer cotton in** to meet the inner fleece.

Fold down the outer cotton to meet the fleece

48. **Pin** the hem in place.

Pin the hem in place

49. **Pin a ribbon loop** at the top of the opening between the cotton and the fleece so that the loop sticks outward and the ends are inside the hem.

Pin a ribbon loop
between the fleece and cotton
at the top of the tube opening

50. **Sew** the hem around the opening of the tube close to the edge.

Sew around the tube opening to finish the hem

51. Because the inner lining is only connected to the outer fabric at the ends, **hand sew a few stitches in the center of the cross at the top and bottom** to keep the inner and outer fabrics together. This will help keep the inside of the cross open by preventing the lining from sagging inside the cross.

Sew a few stitches by hand at the top and bottom of the cross to connect the inner and outer layer.
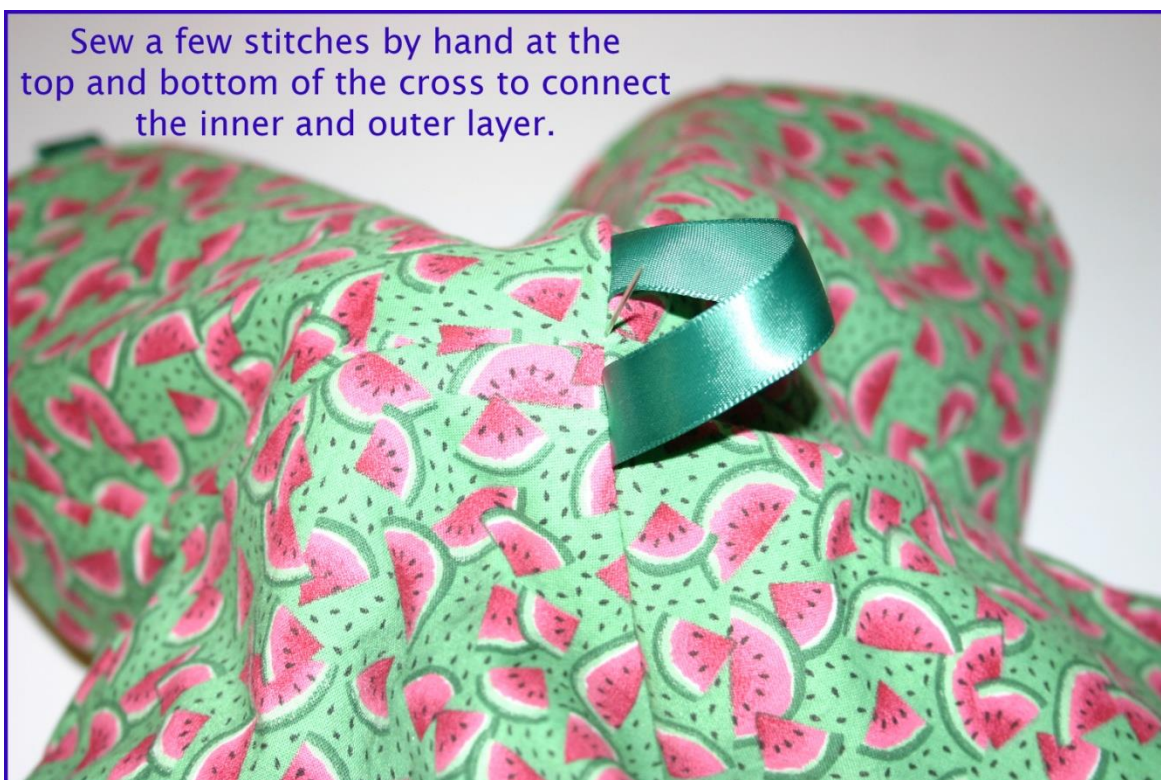
52. **Hang!** Note: the cross tube isn't really meant to hang. It sits nicely on the floor. The ribbon loops are used to keep the center and the openings raised (or they will flatten out as the rats trample on them).

Triangle Pyramid

Materials

Cotton or Flannel

- (4) 12" equilateral triangles

Fleece

- (4) 12" equilateral triangles

Extras

- Thread (match to fleece)
- Ribbon for loop at top

Finished Size

About 9.5" each side; About 7" tall.

Description

The triangle pyramid is a hut shaped like a pyramid with a triangle base.

Instructions

1. **Create a Template** on paper or stiff woven fabric for a 12" equilateral triangle (an equilateral triangle is a triangle with three sides of the same length). Here are two methods that work:

   a. **Measuring Angles:** All three angles of an equilateral triangle are 60 degrees. Measure one straight line 12" long. Measure a 60 degree angle from one corner using a protractor or the angled rules on your rotary cutter set. Draw the line. Do the same for the other corner of your line, making sure your lines intersect.
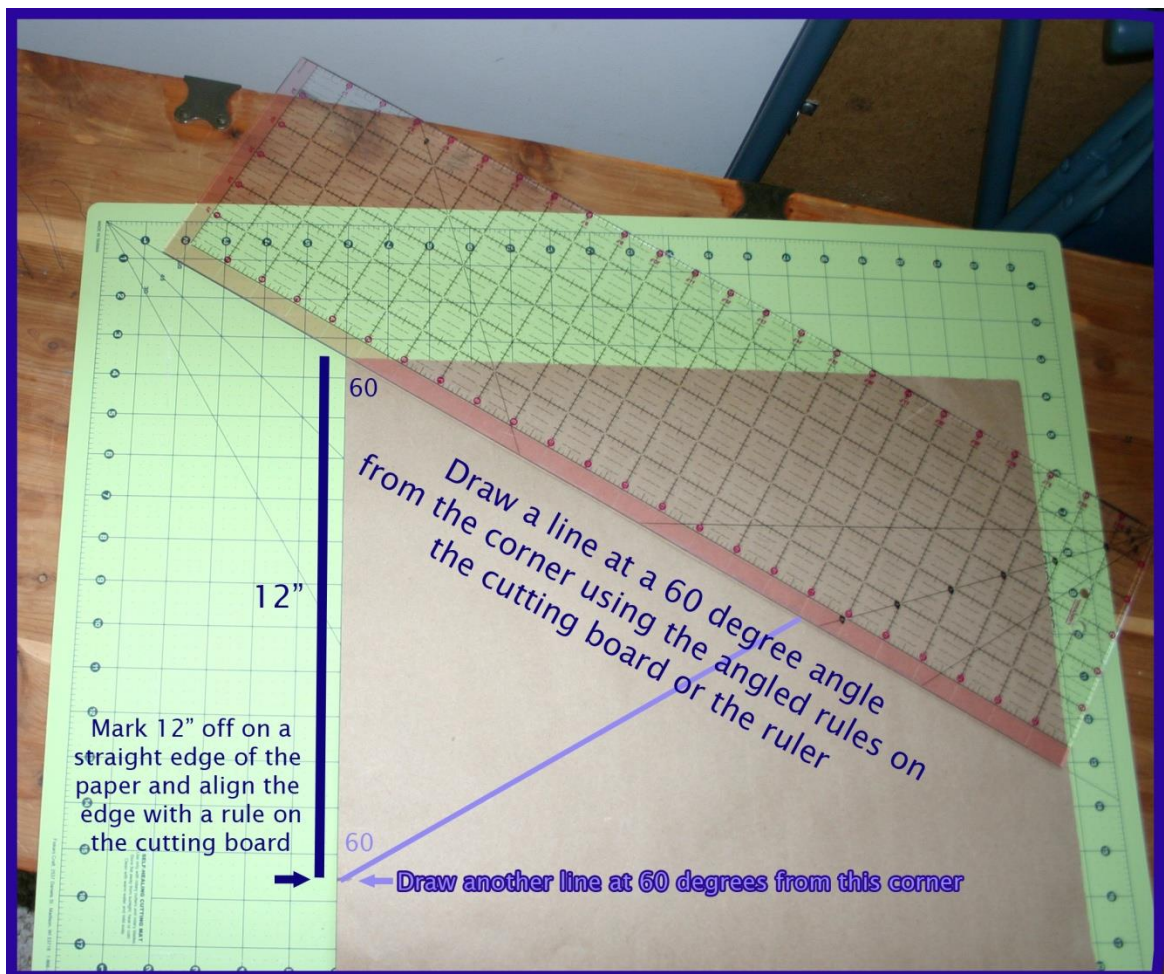
b. **Use a 12" Square:** If you are not good with angles, you can create an equilateral triangle by starting with a 12" square. First, draw a line splitting the square in half. Take a ruler and position the 0 mark of the ruler on one corner of the square. Rotate the ruler until the 12" mark just touches the center line, and draw the line. Do the same on the other side (should match up with the same point as the first side).

12" perfect square

6"

Draw a rule splitting the square exactly in half

Use a ruler to draw lines from the bottom corner to the midline, angling it so that the line is exactly 12"

12"

12"

6"
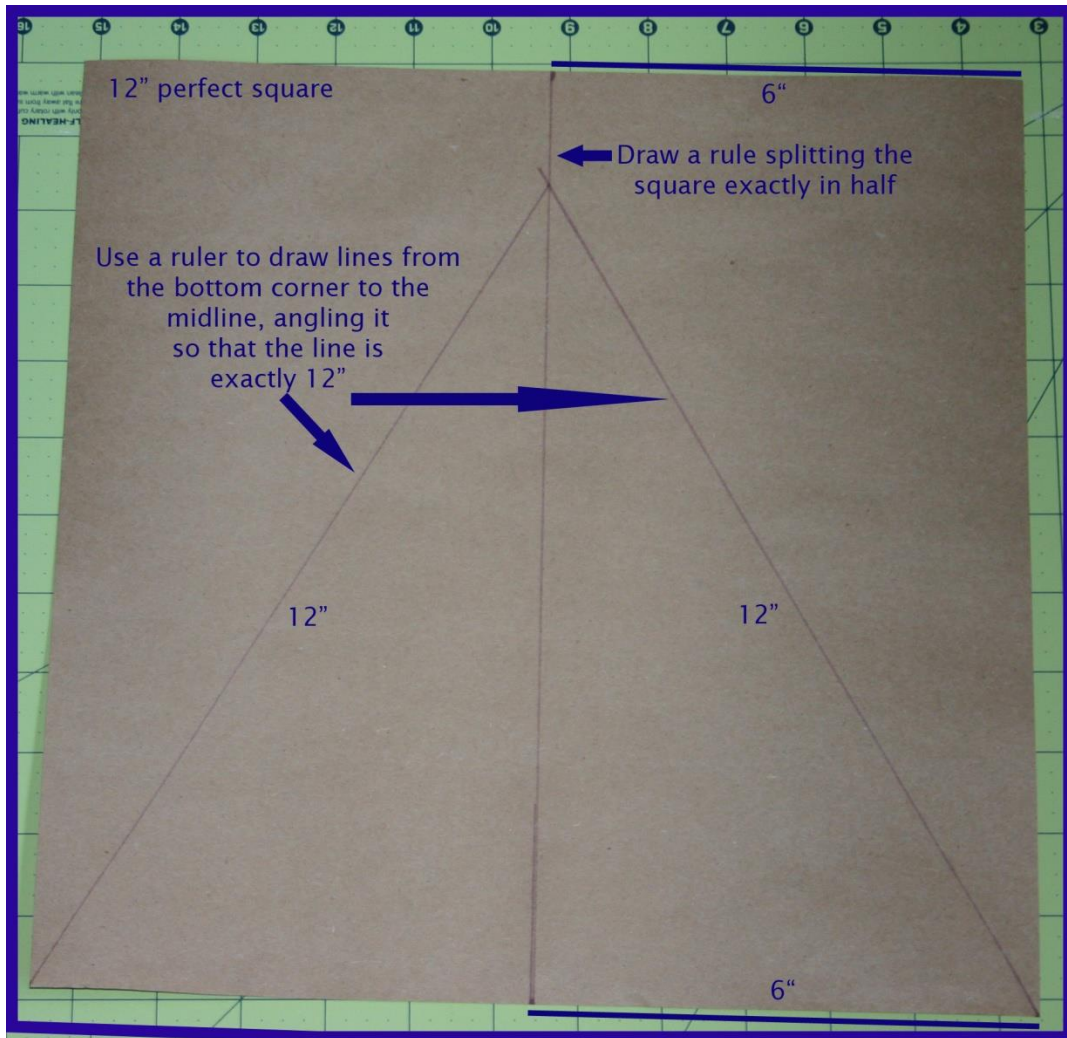
2. **Cut Your Fabric:** Using the template, cut 4 triangles from your cotton material (outside of pyramid) and 4 triangles from your fleece (inner lining).

If you are using fabric that is directional and you don't want it to end up upside down or sideways, cut your fabric so that the bottom of the print is along one side of the triangle with the opposite point of the triangle at the top of the print.
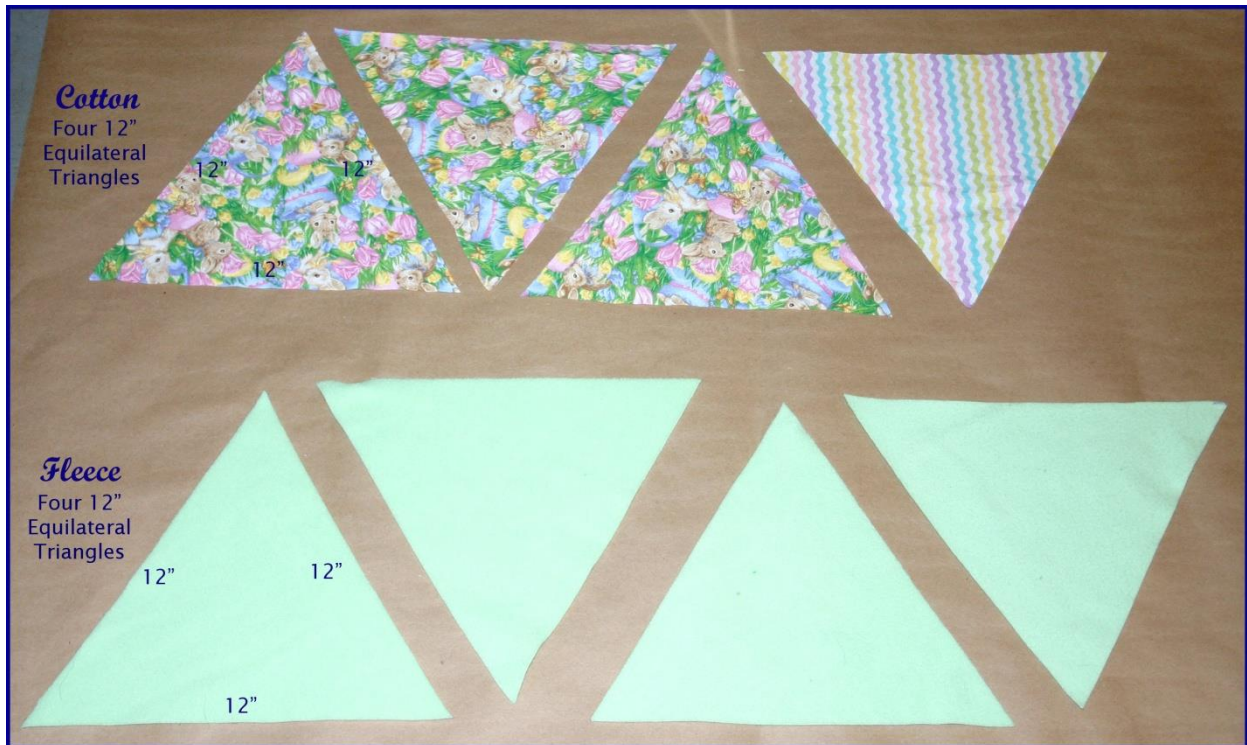
Note that here I used a different cotton print for the bottom panel of the pyramid, as I did not have enough of the original fabric for four triangles. The bottom piece will likely not be visible when the triangle is standing on the floor.

3. **Build the Front Panel**

    a. Pin one piece of cotton to one piece of fleece, **right sides together**.

    b. **Trace a circle** in the center of the triangle. I use a canister of Morton's salt to trace my circles.

You can also trace a triangle, square or rectangular opening if you prefer.

c. **Sew** along the circle that you traced.

Sew Around the
Circle Outline

Cotton and Fleece
(Right Sides
Together)

Wrong Side of Cotton

d. **Cut out** the inside of the circle, being careful not to cut through the stitching.

Cut Out the
Inside of the
Circle
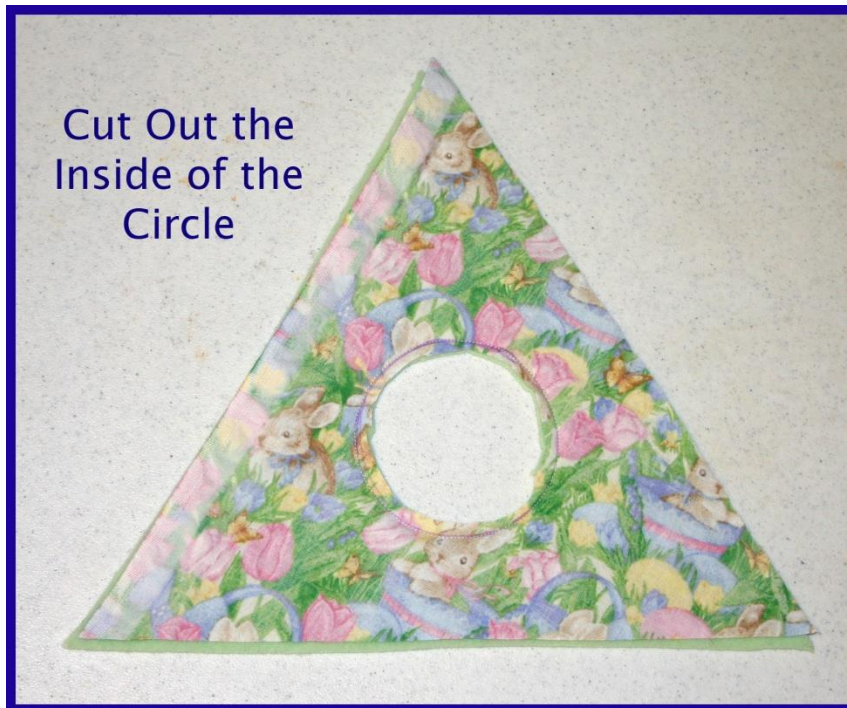
e. Take the cotton piece and separate the edges from the fleece, **passing the cotton through the hole** (do not pass the fleece through the hole).

Push the Cotton Piece Through The Hole

f. **Smooth** the cotton piece until it lies flat against the fleece, but now with the right sides out and a nice clean circle opening. **Pin** it to hold it flat.

g. **Top stitch** around the circle opening to finish it off.

Pin and Top Stitch Around the Opening

Top Stitch

Right Side of Fabric

4. **Attach the Side Panels**

   a. Position the remaining cotton triangles over the remaining fleece triangles, **wrong sides together** (right sides facing out). It is very important that the right side of the cotton is the visible side and the wrong side is against the fleece.

   It is important to note the bottom edge of the triangle if your print is directional – otherwise, you could end up with your print appearing upside down or sideways.

   b. Position the Left Panel over the Front Panel, **cotton sides together**.
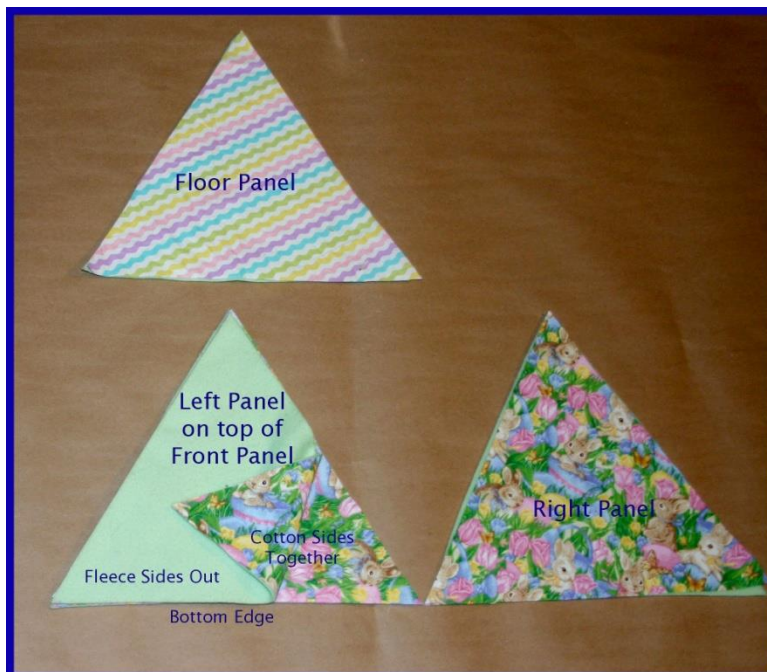
c. **Pin** along the left edge of the triangle, through four layers of fabric, and **sew**.
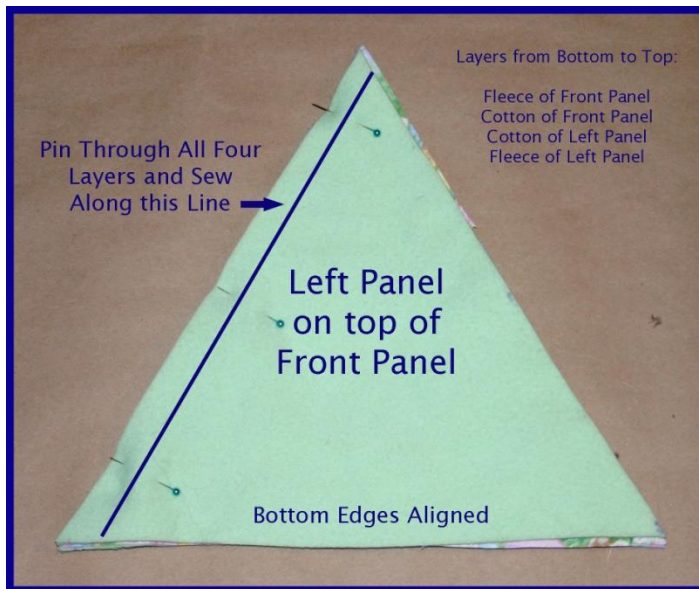
d. Open the two triangles so the left panel is now adjacent to the front panel, connected at the seam.

e. Now **pin** the right panel to the front panel along the right edge (cotton sides together), and **sew**.
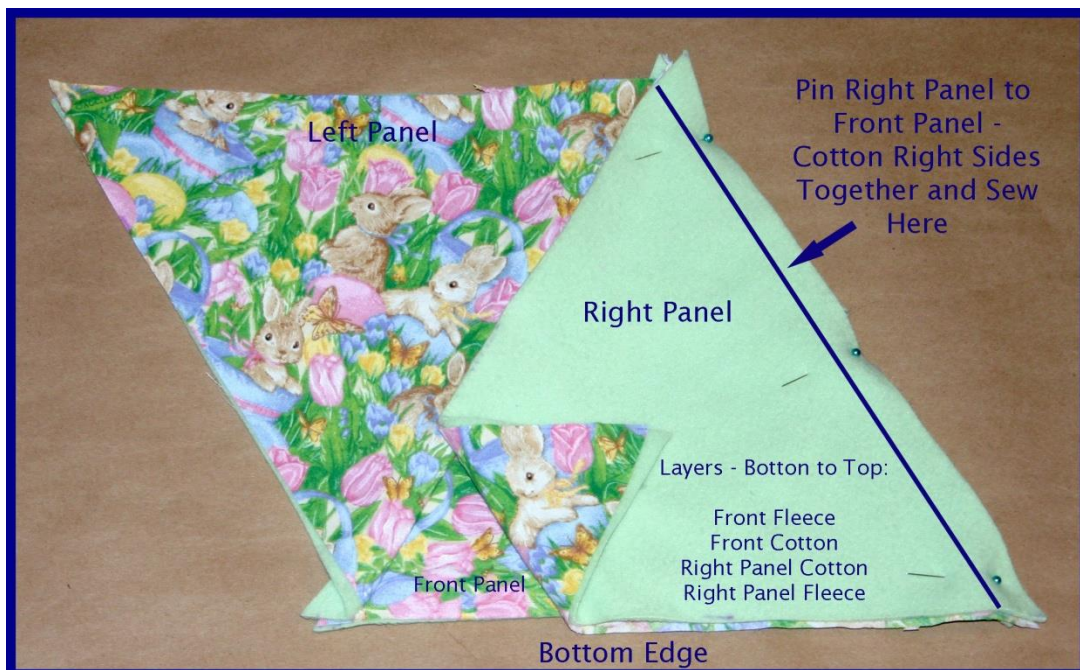
f. Open all three sides so that the cotton fabric is facing up.

Triangle Pyramid After Sewing Right Panel

g. **Pin a loop of ribbon** to the top of the left panel. Angle the ribbon to be parallel with the seam of the **right** panel, as shown below.

Note that the loop will not be used to hang the triangle pyramid. Instead, it is needed to hold the top of the pyramid upright. While the pyramid will stand on its own, your rats will likely trample on it, collapsing it, unless you clip the top to the cage.

h. **Fold** the right half of the pyramid over the left half (cotton sides together).

i. **Pin** the left and right edge together.

j. **Sew** along the pinned edge.

Pin and Sew Here

Bottom Edges of
Left and Right Panel

Fold Right Panel
Over Left Panel

Right Panel

Front Panel

k. **Trim** the seam allowances to remove some of the bulk.

Triangle Pyramid After
Sewing Left Panel
to Right Panel

Seam Allowances
Trimmed

5. **Attach the Bottom Panel**

    a. **Pin** one edge of the bottom panel to the bottom front of the pyramid, cotton sides together.

    b. **Pin** the remaining sides and **sew** along the edges.
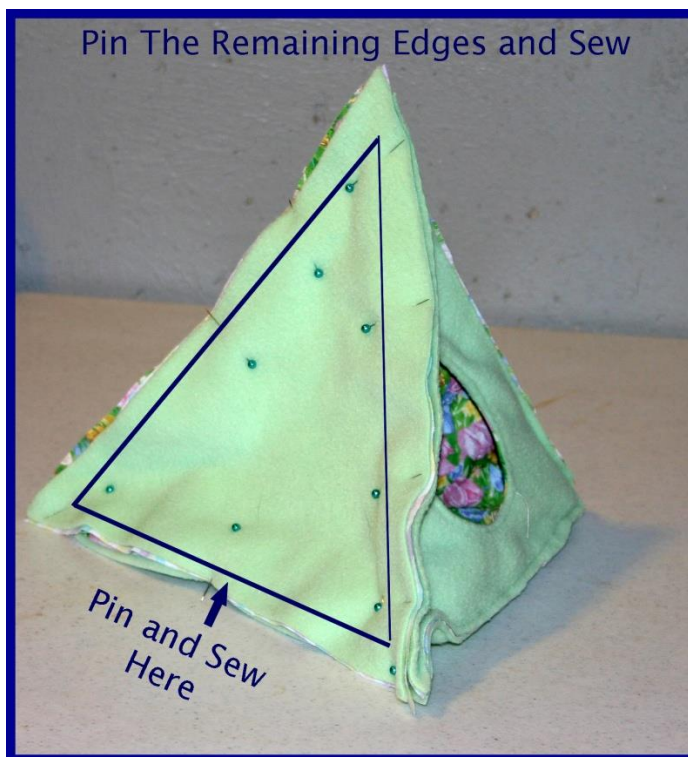
c. **Trim** the seam allowances to remove excess bulk.

6. Turn the pyramid **right-side out** through the opening and you are done!

Get Creative

- Use triangles with themes to represent Christmas trees, tents, teepees, Egyptian pyramids, etc!

Cube

Materials

Cotton or Flannel

- (6) 8" x 8" squares

Fleece

- (6) 8" x 8" squares

Extras

- Thread (match to fleece)
- 4 Pieces of Ribbon for Hanging Loops

Options

- Make a patchwork cube by using different fabrics for each side panel

Finished Size

- 7" x 7" x 7" cube

Instructions

1. **Cut Your Fabric** – (6) 8x8" squares of cotton fabric and (6) 8x8" squares of fleece.
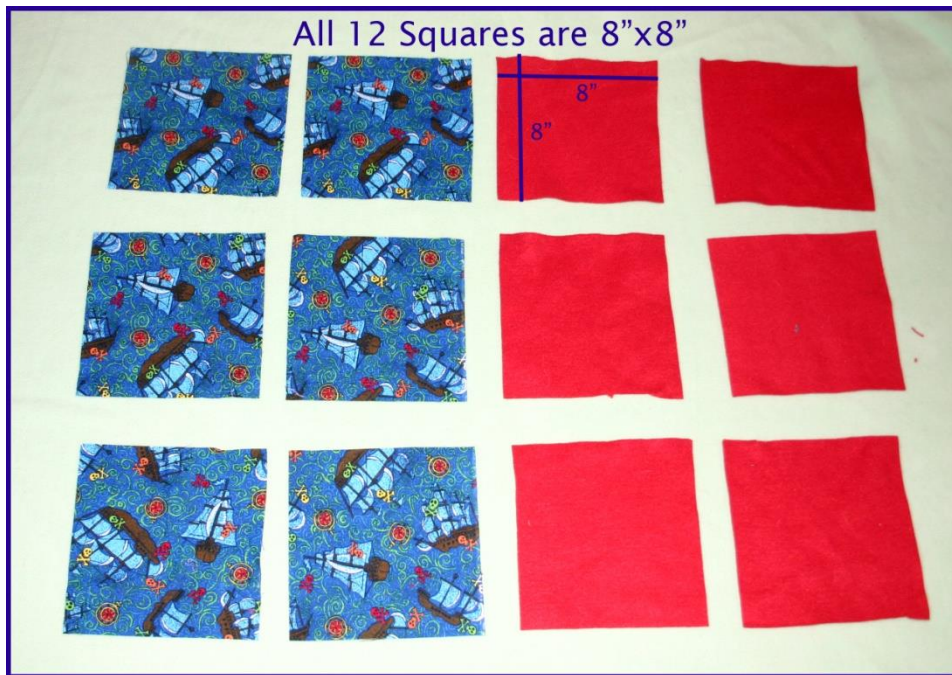
2. **Make Your Entrance Panels.**

   a. **Pin** one cotton square to one fleece square, **right sides together.**

b. **Trace a circle** onto the center of the fabric. I find a Morton's Salt container is about the perfect size.

c. **Sew** along the circle.

d. **Cut** out the center of the circle, being careful not to cut through your stitches.

Cut Out Center of Circle

e. **Separate** the cotton from the fleece and pass the cotton through the hole to the other side of the fleece.

Push Cotton Through Hole

f. **Smooth** out the cotton over the fleece. The right side of the cotton should now be facing out.

g. **Top stitch** around the opening.

h. **Repeat** steps a through g for all panels that you would like to have entry holes. I like to have a front and back entrance to help discourage my rats from chewing a back door out.

3. **Place** the remaining cotton pieces over the remaining fleece pieces, **right sides OUT!** I find it helps to position the squares in the order they will appear in the cube. If your fabric is directional, make sure to line up the left, right, front, and back panels with the bottom of the print at the bottom of the panel.

4. **Pin** the left panel to the front panel along the left edge, **right sides of the cotton together.**

Pin and Sew
Left Panel to Front Panel
Cotton Sides Together

Pin and Sew Along This Side Only

5. **Sew** along the pinned edge.
6. **Trim** the excess thread and the seam allowances.
7. **Open** (straighten) the two panels (like a book), and place **cotton side up.**

8. **Pin** the right panel to the front panel along the right edge, **right sides of cotton together.**

9. **Sew** along the pinned edge.
10. **Trim** excess thread and seam allowance.
11. **Open** (straighten) the three panels, and place **cotton side up.**

12. **Pin** the back panel to the right panel along the right edge, **right sides of cotton together.**

13. **Sew** along the pinned edge.
14. **Trim** excess thread and seam allowance.
15. **Open** (straighten) the two panels (like a book), and place **cotton side up.**

16. **Fold** the left panel across to the back panel and **pin** the raw edges together, **right sides of the cotton together.**

17. **Trim** excess thread and seam allowances. You should now have a cube without a top or bottom.

18. **Pin** the top panel to the front panel along the top edge, **right cotton sides together**.
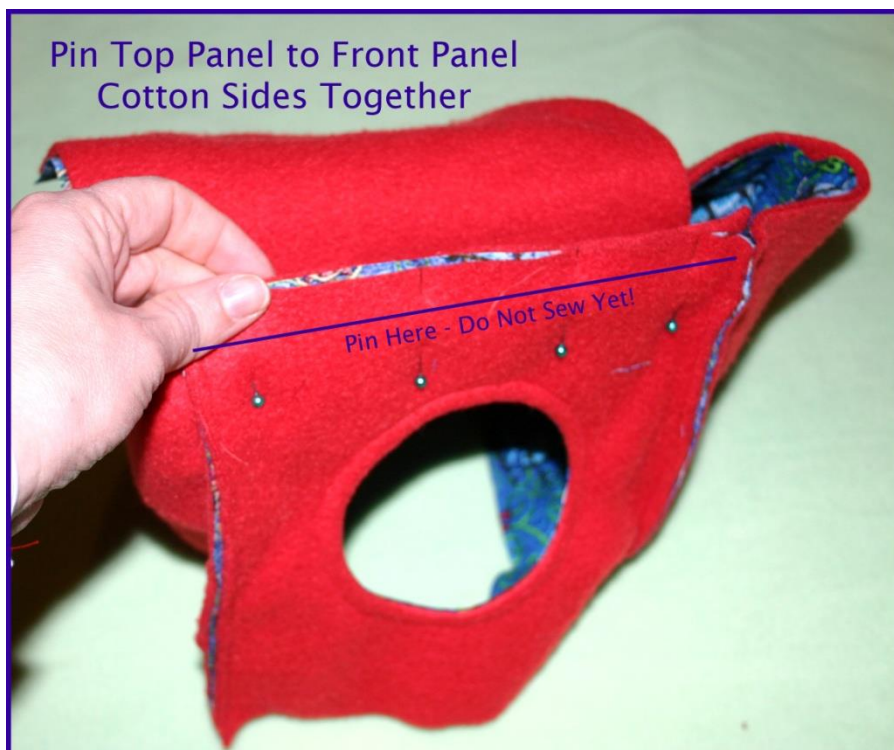
19. **Pin ribbon loops** to the top edge of the left and right panels in each corner – pin to the cotton side of the panel. The raw edge of the loop should be lined up with the raw edge of the panel, with the fold of the loop pointed in.

20. **Pin** the top panel to the last three sides along the top edge, **right cotton sides together**.

I used to like to pin and sew with the front/back/side panels facing up as shown, but now pin and sew with the top panel facing up instead. See the Rectangular Prism tutorial for an example of the alternate method.

21. **Trim** excess thread and seam allowances.

Trim Seam Allowances

22. **Pin** the bottom panel to the four bottom edges of the cube, **cotton right sides together.**

Pin Bottom Layer to Front, Left, Back, and Right Panels, Cotton Right Sides Together

Sew Along all Four Edges

23. **Sew** along all four edges where pinned.
24. **Trim** excess thread and seam allowances.

Trim Seam Allowances

25. **Turn cube right side out.**

Turn Cube Right-Side Out

26. **Hang.** Note: you can either hang the cube by the ribbons like a hammock, or you can set the cube on the ground and use the hanging ribbons to ensure the cube does not collapse on itself.

Seamless Cube

Materials

Cotton or Flannel

- (6) 8" x 8" squares

Fleece

- (6) 8" x 8" squares

Extras

- Thread
- 4 Pieces of Ribbon for Hanging Loops

Finished Size

- 7" x 7" x 7" cube

Description

This cube has no visible seams inside or out. It is based on a design from the Rattributes tutorials. I have modified the design to use the premade machine sewed openings (as in the standard cube tutorial) and to allow a front and back door opening, and I changed the way the cube is closed at the end so that hand sewing of the hole on the outside is no longer necessary.

This tutorial is complex. Once you know how it is done, it isn't hard to do. It is just difficult to describe some of the steps and to interpret the instructions the first time around.

Instructions

1. **Cut Your Fabric –** (6) 8x8" squares of cotton fabric and (6) 8x8" squares of fleece.
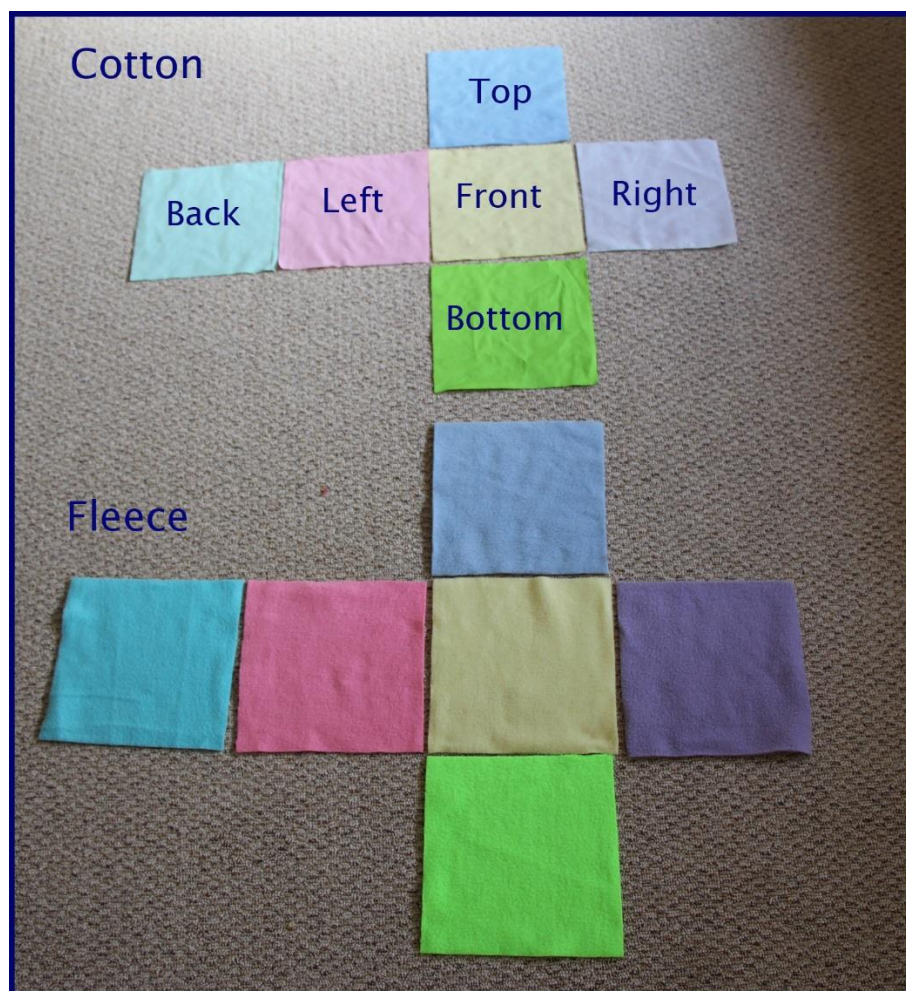
NOTE: This cube uses a different color for each panel to clearly differentiate the panels in the instructions. The above panel names will be used throughout the tutorial.

2. **Make Your Entrance Panels.**

    a. **Pin** one cotton square to one fleece square, **right sides together.**

    b. **Trace a circle** onto the center of the fabric. I find a Morton's Salt container is about the perfect size.

    c. **Sew** along the circle outline.

d. **Cut** out the center of the circle, being careful not to cut through your stitches.
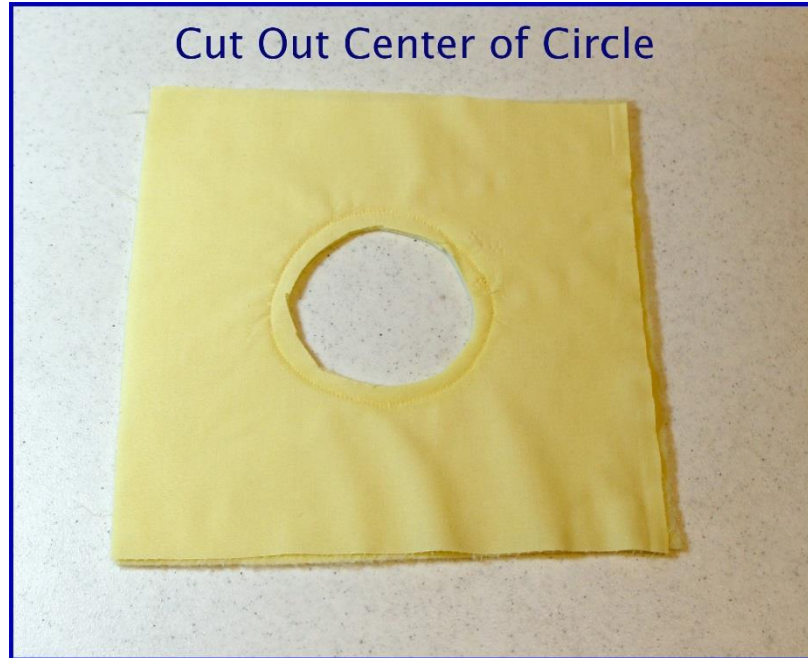
Cut Out Center of Circle

e. **Separate** the cotton from the fleece and pass the cotton through the hole to the other side of the fleece.
f. **Smooth** out the cotton over the fleece. The right side of the cotton should now be facing out.
g. **Top stitch** around the opening.

Turn Front Panel Right Side Out Through Opening

Top Stitch Around Opening

h. **Repeat** steps a through g for the back panel (if desired).

3. **Attach Right Panel to Front Panel**
   a. **Lay** Fleece for Right Panel **right side up.**
   b. **Set** Front Panel on top of fleece, **fleece right sides together,** cotton side up.

c. **Set** cotton piece of Right Panel on top of Front Panel, **right cotton sides together.**

Place Right Panel Cotton
on Top of Front Panel

Right Cotton Sides Together

d. **Pin** along right edge.

Pin along Right Edge

Right Panel Fleece
Right Side Up

Front PanelFleece
Right Side Down

Front PanelCotton
Right Side Up

Pin ➡

Right Panel Cotton
Right Side Down
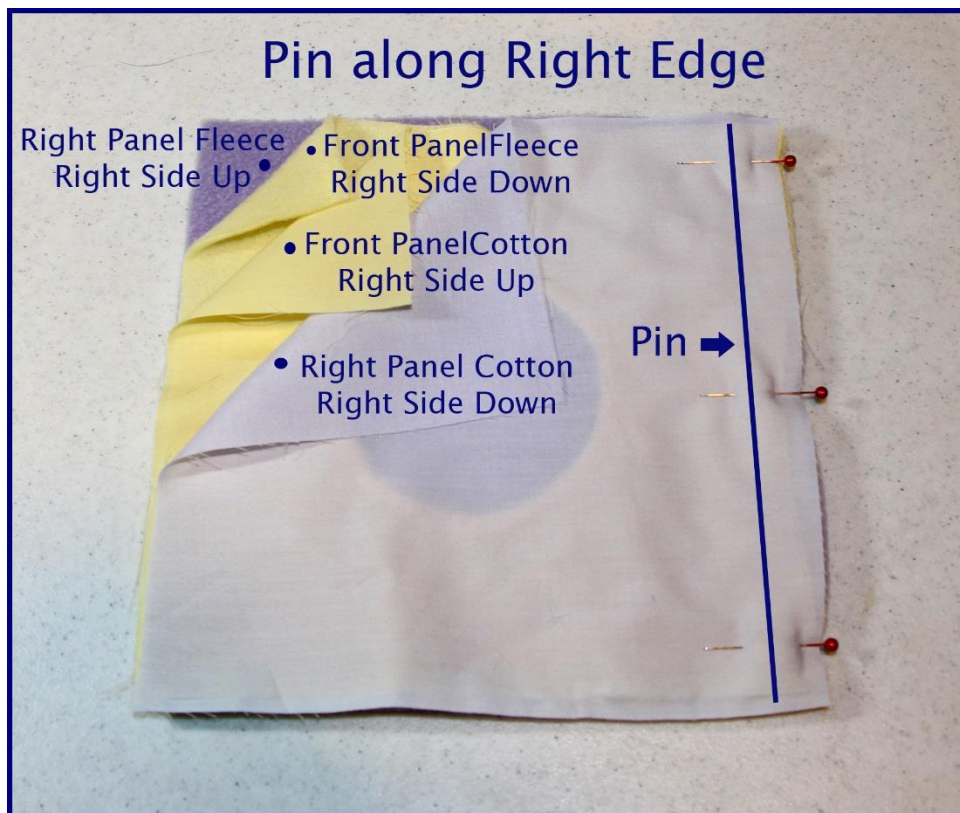
NOTE: The layers in this stack should be, from bottom to top:

Right Panel Fleece, right side up
Front Panel Fleece, right side down
Front Panel Cotton, right side up
Right Panel Cotton, right side down

    e. **Sew** along pinned edge and **Trim** seam allowance/loose threads.

4. **Attach Back Panel to Right Panel**

NOTE: If your back panel does not have an opening, you can attach it in the same manner as the right panel and the left panel. If it has an opening, you must attach as detailed below

a. **Spread** Right Cotton Panel open (like opening a book backwards).
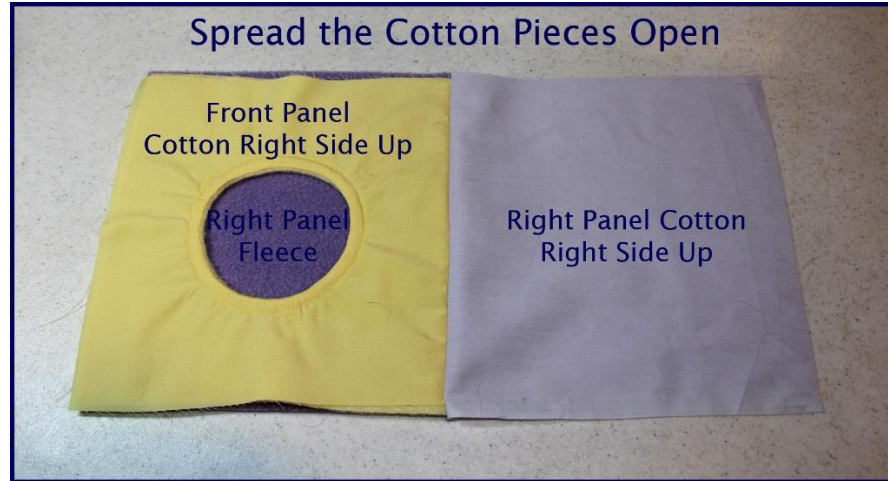
b. **Place** Back Panel on Right Cotton Panel, cotton side down.
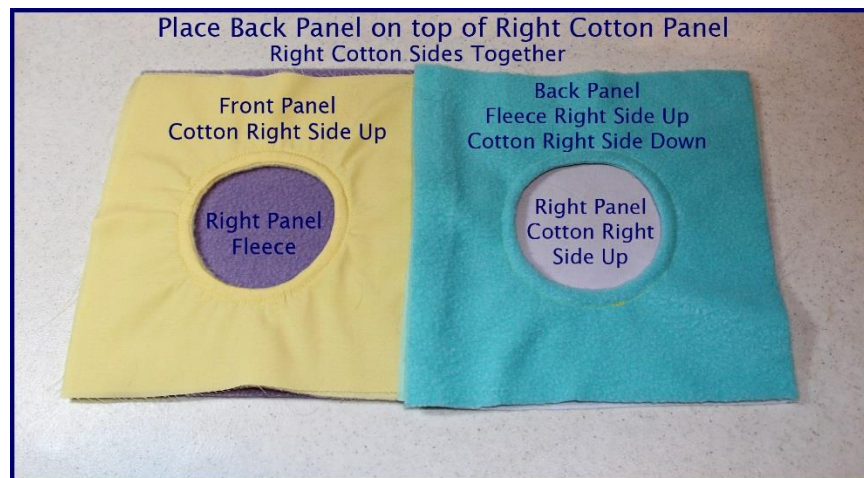
c. **Roll** Front Panel toward center seam. This will keep it out of your way.

d. **Fold** the Right Panel Fleece across the rolled Front Panel and over the Back Panel.

NOTE: The Layers should be as follows (from bottom to top):

Right Panel Cotton, right side up
Back Panel Cotton, right side down
Back Panel Fleece, right side up
Right Panel Fleece, right side down

e. **Pin** the right edge.
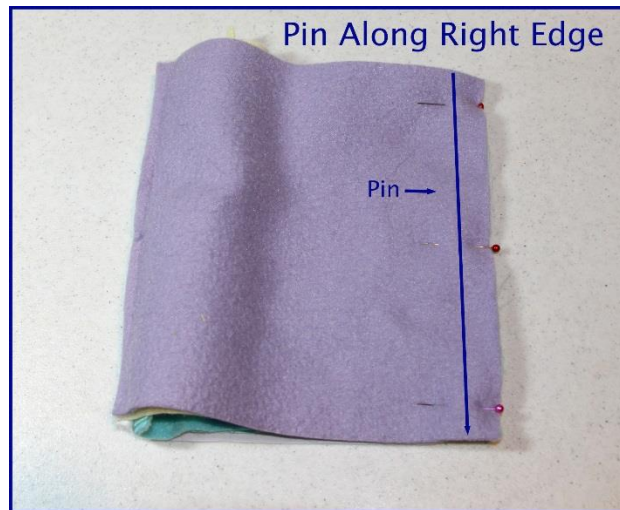
f. **Sew** along the pinned edge and trim seam allowance and loose threads.

g. **Turn right-side out.**

h. When opened flat, it should look like this:
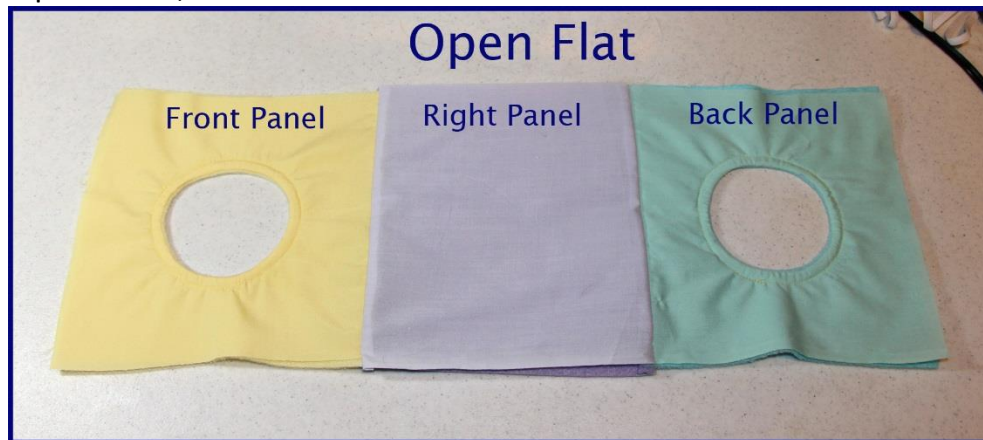
5. **Attach Left Panel to Back Panel**

a. **Place** Left Panel Fleece under the Back Panel, fleece right sides together.

b. **Place** Left Panel Cotton on top of Back Panel, cotton right sides together.

c. **Pin** along right edge.

d. **Sew** along pinned edge and trim seam allowances and loose threads.

6. **Attach Left Panel to Front Panel**
    a. **Spread** open the Left Panel Cotton piece.
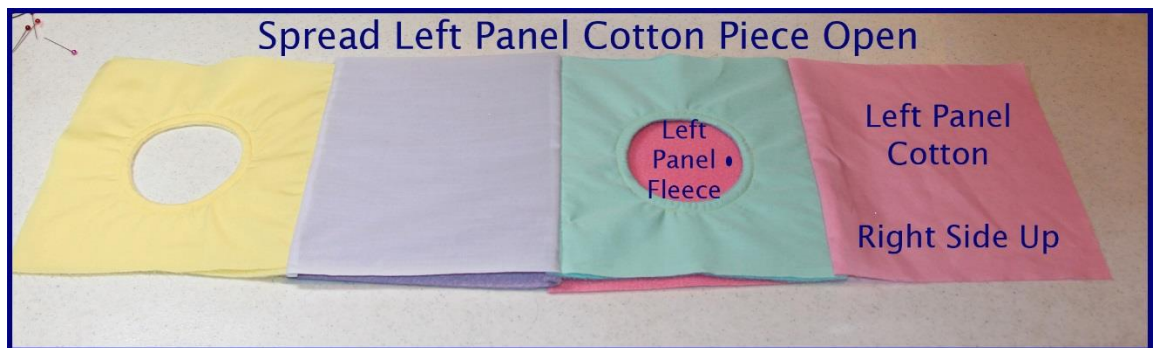
b. **Fold** Front Panel Across and Position over Left Panel, cotton right sides together.
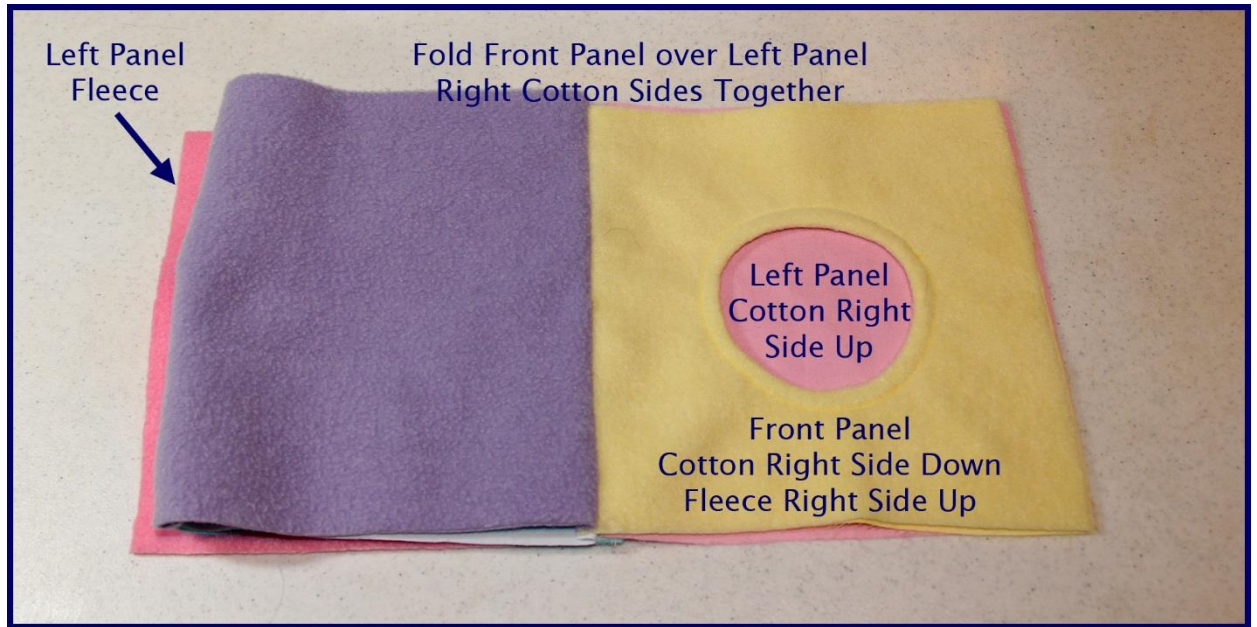
c. **Roll up** the folded portion toward the center to keep it out of your way.

d. **Fold** the Left Panel Fleece across and position over the Front Panel, fleece right sides together.

Fold Left Panel Fleece over Front Panel, Right Fleece Sides Together

Left Panel Cotton, Right Side Up

Front Panel Cotton, Right Side Down

Front Panel Fleece, Right Side Up

Left Panel Fleece, Right Side Down
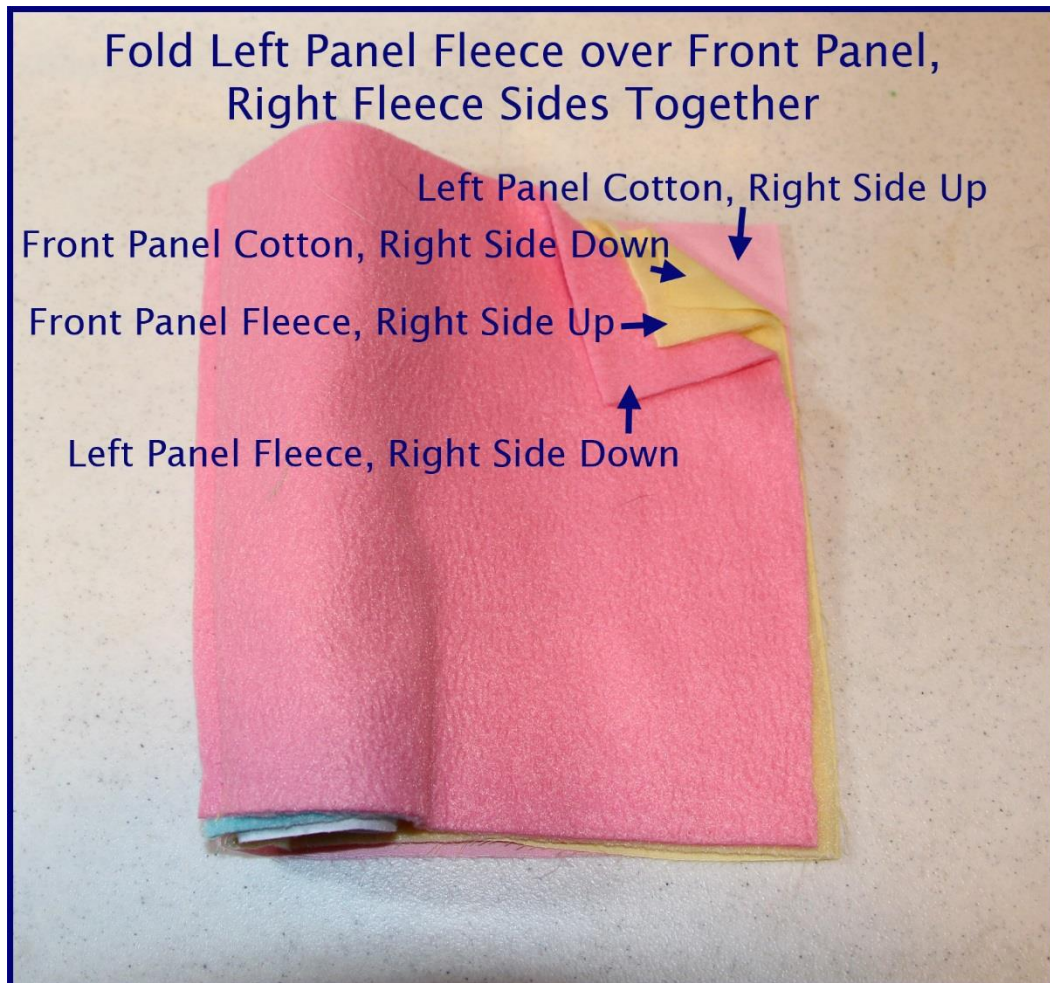
*The Layers should be as follows (bottom to top):*

Left Panel Cotton, right side up
Front Panel Cotton, right side down
Front Panel Fleece, right side up
Left Panel Fleece, right side down

e. **Pin** along right edge.
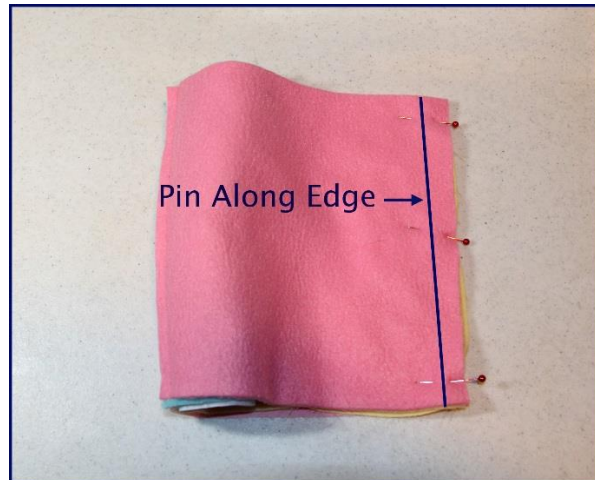
f. **Sew** along pinned edge. **Trim** seam allowance and loose threads.

g. **Open** between the fleece layers and **turn right side out.**

All Four Sides Turned Right Side Out

7. **Attach Top Panel**

NOTE: When attaching the top panel, the last side panel to be attached to the top panel must be a solid (no opening) panel.

a. **Position** the Top Panel Fleece behind the Front Panel, right fleece sides together.

Align One Edge of Top Panel Fleece Along Top Edge of Front Panel Fleece Right Sides Together

Top Panel Fleece

Front Panel

  b. **Position** the Top Panel Cotton in front of the Front Panel, right sides together.

  c. **Pin** along the top edge.

THE LAYERS (inside to outside):
Top Panel Fleece
Front Panel Fleece (right fleece sides together)
Front Panel Cotton
Top Panel Cotton (right cotton sides together)

Place Top Panel Cotton
in front of Front Panel
Cotton Right Sides Together

Pin All Four Layers Along Edge

NOTE: The Layers should be as follows (from inside the cube to outside):

Top Panel Fleece

Front Panel Fleece (right fleece sides together)

Front Panel Cotton

Top Panel Cotton (right cotton sides together)

  d. **Sew** along pinned edge. **Trim** seam allowance and loose threads.

Sew Along
Pinned Edge

Trim Seam
Allowance

e. **Pin** ribbon loops to the top edge of the Right Panel cotton piece.

f. **Pull** the right edge of the Top Panel Cotton piece up and to the right, aligning it with the top edge of the Right Panel, right cotton sides together.

g. **Pull** the right edge of the Top Panel Fleece up and to the right, aligning it with the top edge of the Right Panel, right fleece sides together. (NOTE: The cube will start to bunch).

h. **Pin** along the top edge of the Right Panel
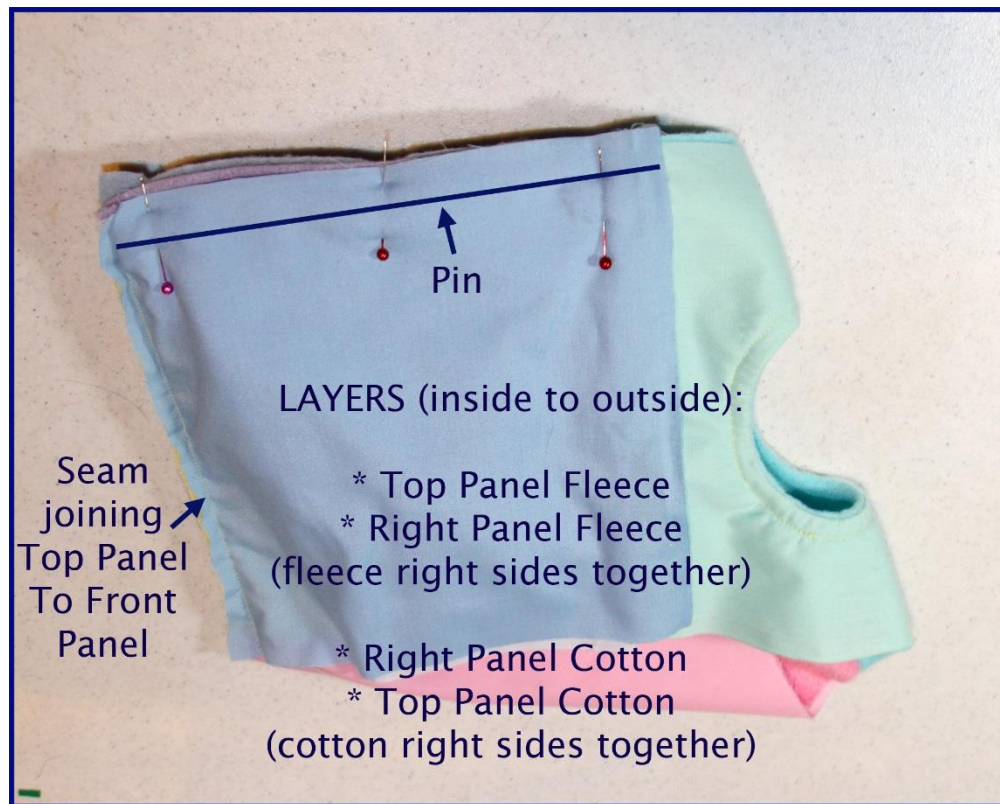
Layers should be as follows (from inside the cube to outside):

Top Panel Fleece

Right Panel Fleece (fleece right sides together)

Right Panel Cotton

Ribbon Loops

Top Panel Cotton (cotton right sides together

i. **Sew** along pinned edge. **Trim** seam allowance and loose threads.

Sew Along
Pinned Edge

j. **Raise** the right edge of the Top Cotton Piece up and to the right, to align with the top edge of the Back Panel, cotton right sides together.
k. **Raise** the right edge of the Top Fleece Piece up and to the right, to align with the top edge of the Back Panel, fleece right sides together.

Align this edge of the top fleece panel to this edge of the back fleece panel, fleece right sides together.

Align this edge of the top cotton panel to this edge of the back cotton panel, cotton right sides together
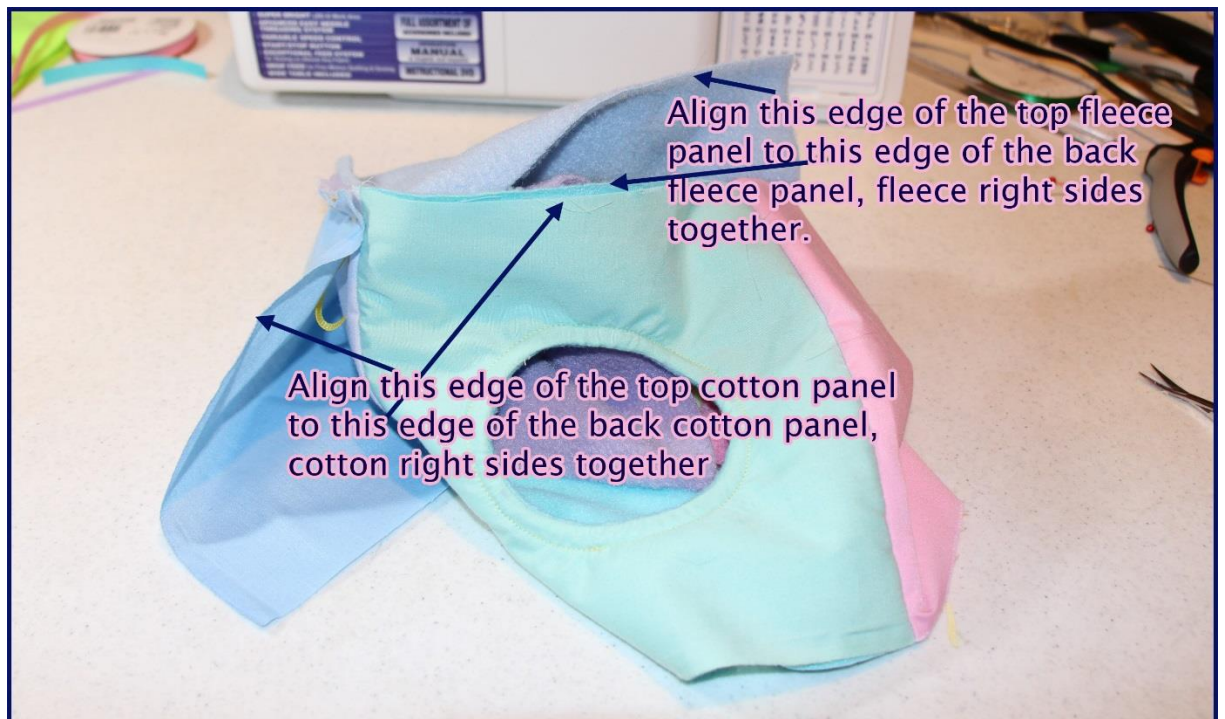
l. **Pin** along the top edge of the Back Panel. (NOTE: The bulk of the cube will now be enclosed between the cotton and fleece Top Panel pieces).
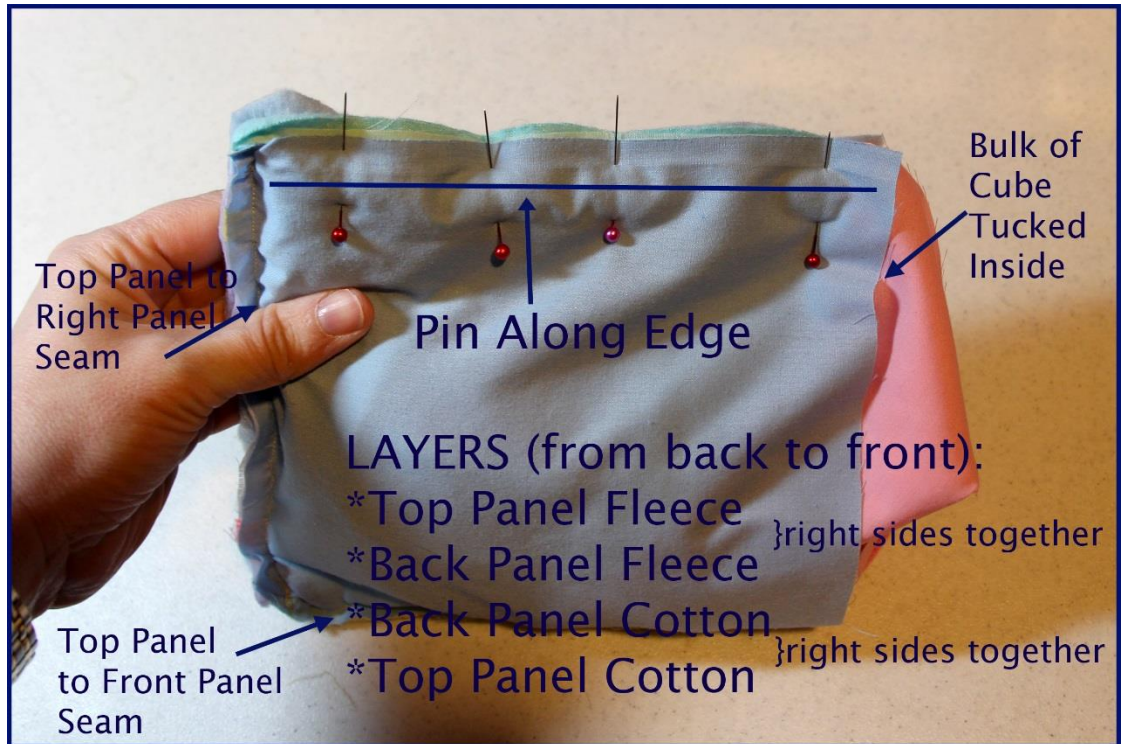
m. **Sew** along pinned edge. **Trim** seam allowance and loose threads.

n. **Turn** cube **right-side out.**

    o. **Pin ribbon loops** to the right side of the Left Panel cotton piece only.

    p. **Pin** the other three layers together: the Left Panel fleece piece, the Top Fleece piece (right fleece sides together), and the Top Cotton piece (right side out) together.

q. **Turn Cube Inside-Out** through the opening between the Left Panel Cotton piece and the Left Panel Fleece piece.

Turn Inside Out
Through the Opening
Between
the Left Panel Fleece
and the Left Panel Cotton

r. **Align** the Left Panel Cotton piece with the pinned ribbons to the Top Panel Cotton piece along the pinned edge. Pin all four layers together.

Align the pinned edge
with the cotton edge with loops

Pin All Four Layers

LAYERS (from back to front):
*Left Panel Cotton }right sides together
*Top Panel Cotton
*Top Panel Fleece }right sides together
*Left Panel Fleece

NOTE: The Layers Should be as follows:

Left Panel Cotton
Top Panel Cotton (right cotton sides together)
Top Panel Fleece
Left Panel Fleece (right fleece sides together)

s. **Sew** along pinned edge. **Trim** seam allowance and loose threads.

t. **Turn cube right-side out** through the opening at the bottom of the Left Panel.

8. **Attach Bottom Panel**

a. **Attach** three sides of the bottom panel in the same manner as the top panel was attached (Steps 7a-7n).

(NOTE: Do not add ribbon loops and make sure final side is not a panel with an opening).

Attach first 3 sides
to the bottom
the same way the
top was attached

b. **Separate** the last panel fleece and cotton layers (in this example, the Left Panel), and **turn cube inside out.**

Turn inside out through the Space
between the
Left Panel Fleece and the Left Panel Cotton

Left Panel Fleece

Bottom Panel
Fleece

Bulk of Cube

Bottom Panel Cotton
Left Panel Cotton
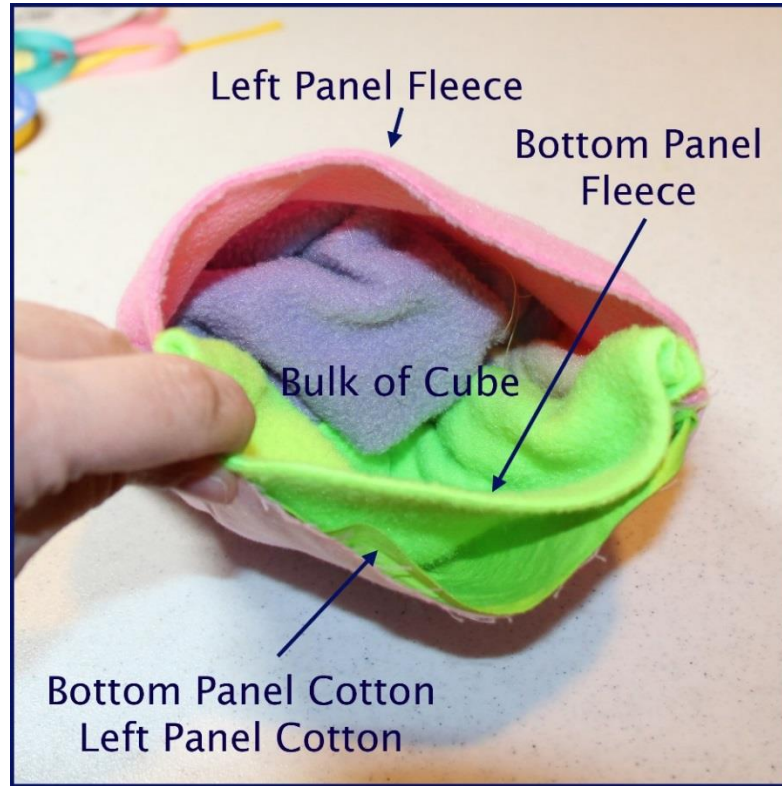
c. **Pin** the Bottom Panel Cotton to the Left Panel Cotton, right sides together. (NOTE: I believe you should be able to add the bottom panel fleece to this pinned section, but I have not tried it yet.)

Pin Bottom Panel Cotton
to Left Panel Cotton
Right Sides Together

d. **Sew** along pinned edge. (NOTE: You do not need to sew all the way to the ends. You can stop at the arrows below. This step is just closing the cotton layers where the hole will be to turn the cube right side out.)

Sew Cotton Layers Together
Between the Arrows

e. **Pin** all four layers together.

Pin All Four Layers Together
(back to front):
Left Panel Fleece
Bottom Panel Fleece
Bottom Panel Cotton
Left Panel Cotton

f. **Sew** along pinned edge, leaving an opening to turn the cube right side out. Make sure to overlap the stitching on the cotton pieces. **Trim** seam allowance and loose threads.

Sew Along Pinned Edge
Leaving an Opening
to Turn Right-side Out

g. **Turn cube right side out** through the opening between the two fleece layers.

Turn Right-Side Out Through Opening
Between Fleece Layers
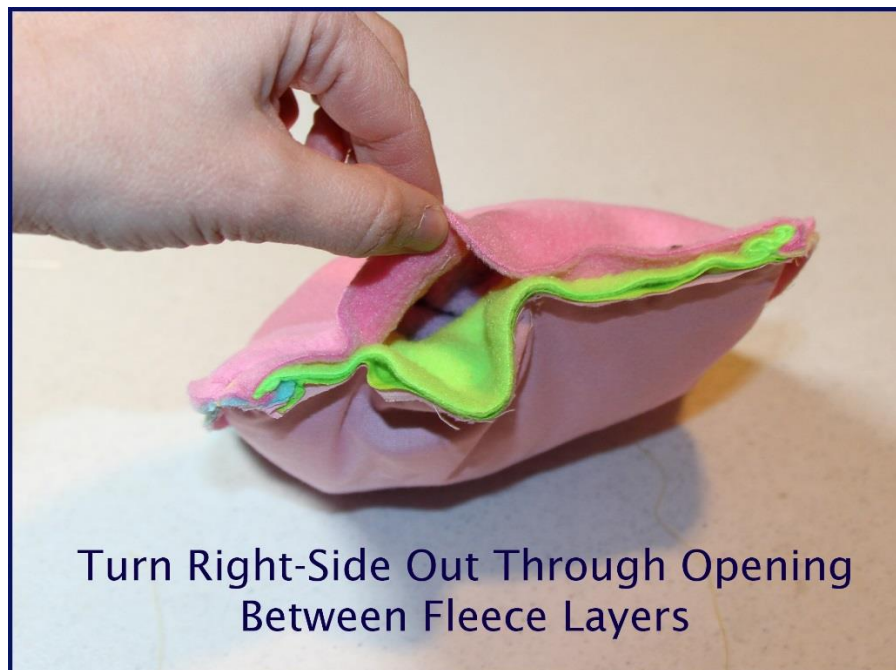
h. Turn the cube fleece side out, if it is not already.
i. **Slip Stitch** the opening in the fleece closed.

With the Fleece Side Out
Slip-Stitch the Opening
Closed

j. **Turn the Cube Cotton Side Out.**

Turn Right-side Out

Rectangular Prism

(Also Known As: Rectangular Cube)

Materials

Cotton or Flannel

- (2) 8" x 8" squares
- (4) 8" x 12" rectangles

Fleece

- (2) 8" x 8" squares
- (4) 8" x 12" rectangles

Extras

- Thread (match to fleece)
- 6 Pieces of Ribbon for Hanging Loops

Options

- Make a patchwork rectangle by using different fabrics for each side panel
- Increase or decrease the length of the rectangle
- Position openings in various places – even on the roof
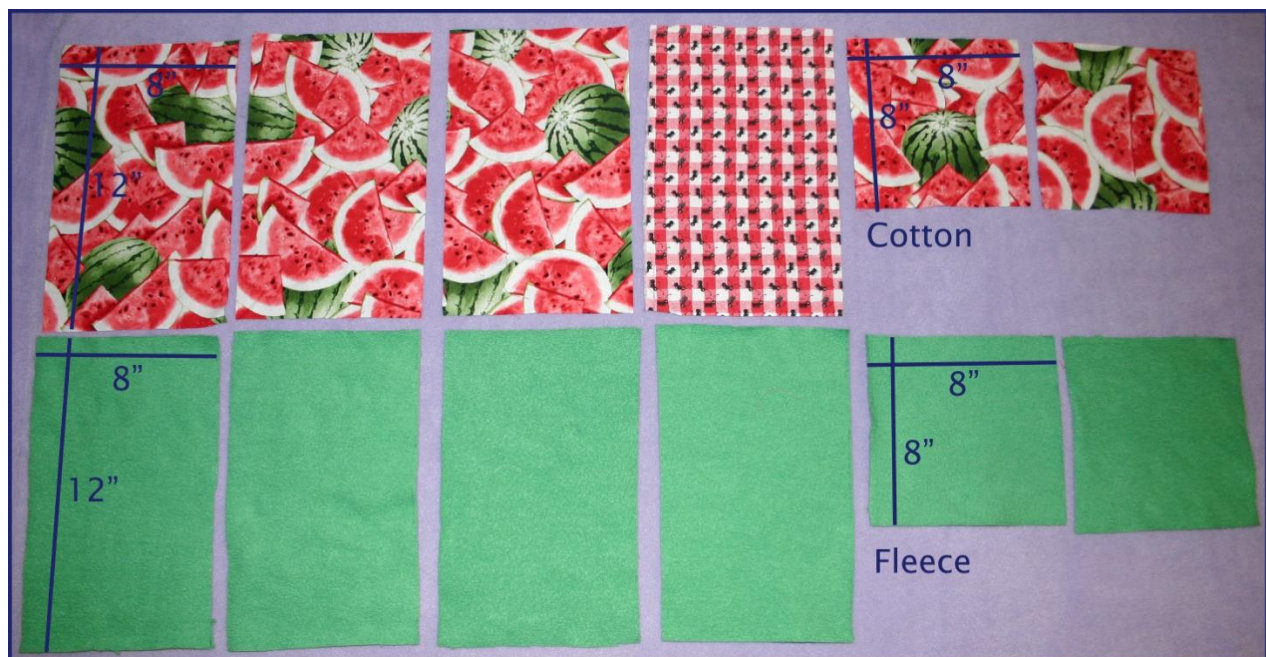
Finished Size

- 7" x 7" x 11" rectangular prism

Note

The instructions for the rectangular prism are almost identical to those of a cube.

Instructions

1. **Cut Your Fabric** – (2) 8x8" squares and (4) 8x12" rectangles of cotton fabric and (2) 8x8" squares and (4) 8x12" rectangles of fleece.

2. **Make Your Entrance Panels.**

    a. Choose **which sides** you would like to have openings and where you would like those opening to be. You can put an opening on the roof if you like. In this example, one opening will be on a square side and one opening will be on a rectangular side. Do the following for each side with an opening.

b. **Pin** one cotton piece to one fleece piece, **right sides together**, for each side with an opening.

c. **Trace a circle** where you would like to place an opening. I find a Morton's Salt container is about the perfect size. You can also make openings of other shapes.

d. **Sew** along the circle outline.
e. **Cut** out the center of the circle, being careful not to cut through your stitches.

Sew Along Outline

Cut Out Center of Opening
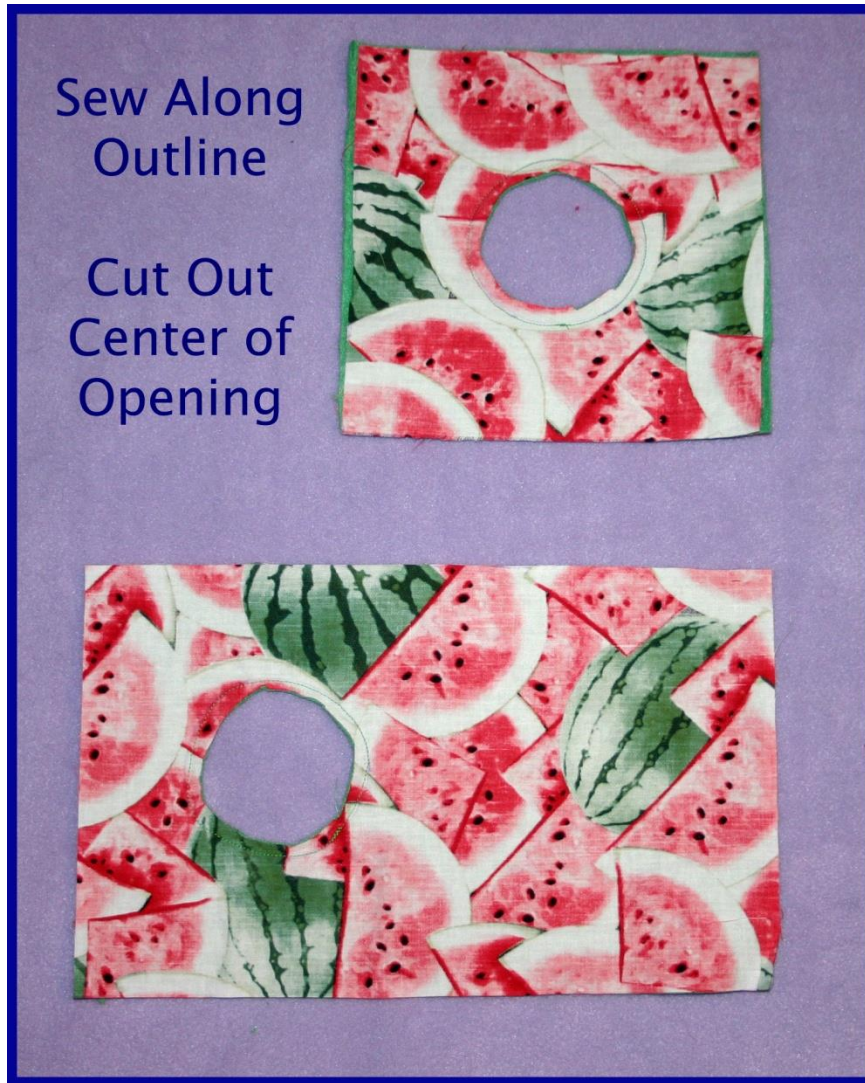
f. **Separate** the cotton from the fleece and pass the cotton through the hole to the other side of the fleece.

g. **Smooth** out the cotton over the fleece. The right side of the cotton should now be facing out.

Turn the openings right-side out by passing the cotton piece through the hole

h. **Top stitch** around the opening.
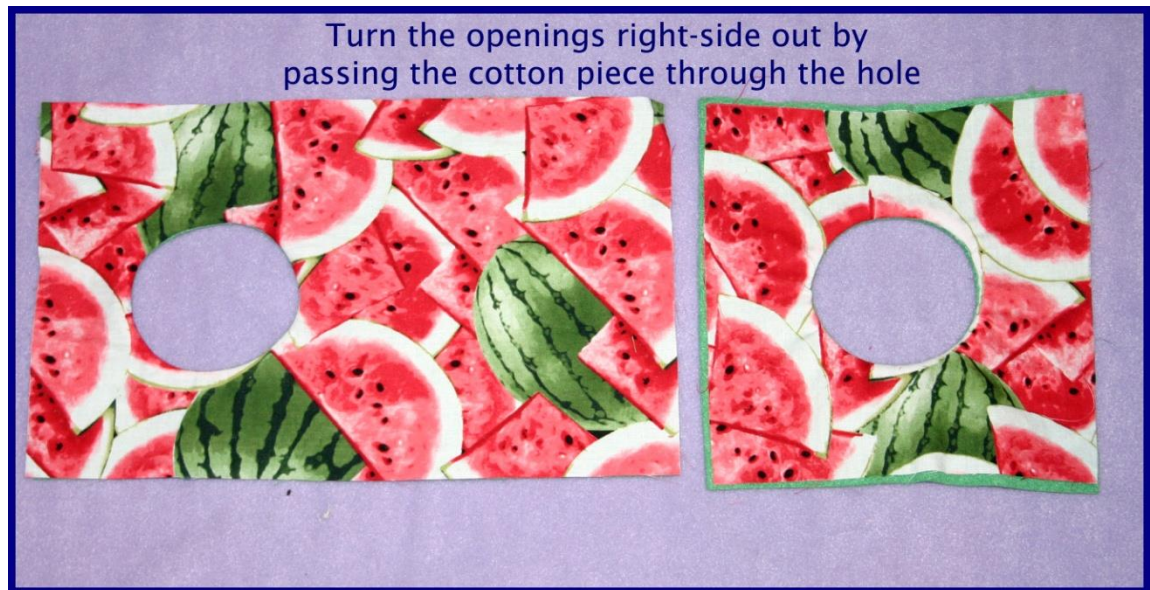
Top Stitch Around the Opening

3. **Place** the remaining cotton pieces over the remaining fleece pieces, **right sides out.** I find it helps to position the sides in the order they will appear in the cube. If your fabric is directional, make sure to line up the left, right, front, and back panels with the bottom of the print at the bottom of the panel.

4. **Pin** the left panel to the front panel along the left edge, **right sides of the cotton together.**

5. **Sew** along the pinned edge.
6. **Trim** the excess thread and the seam allowances.
7. **Open** (straighten) the two panels (like a book), and place **cotton side up.**

8. **Pin** the right panel to the front panel along the right edge, **right sides of cotton together.**

9. **Sew** along the pinned edge.
10. **Trim** excess thread and seam allowance.
11. **Open** (straighten) the three panels, and place **cotton side up.**

12. **Pin** the back panel to the right panel along the right edge, **right sides of cotton together.**

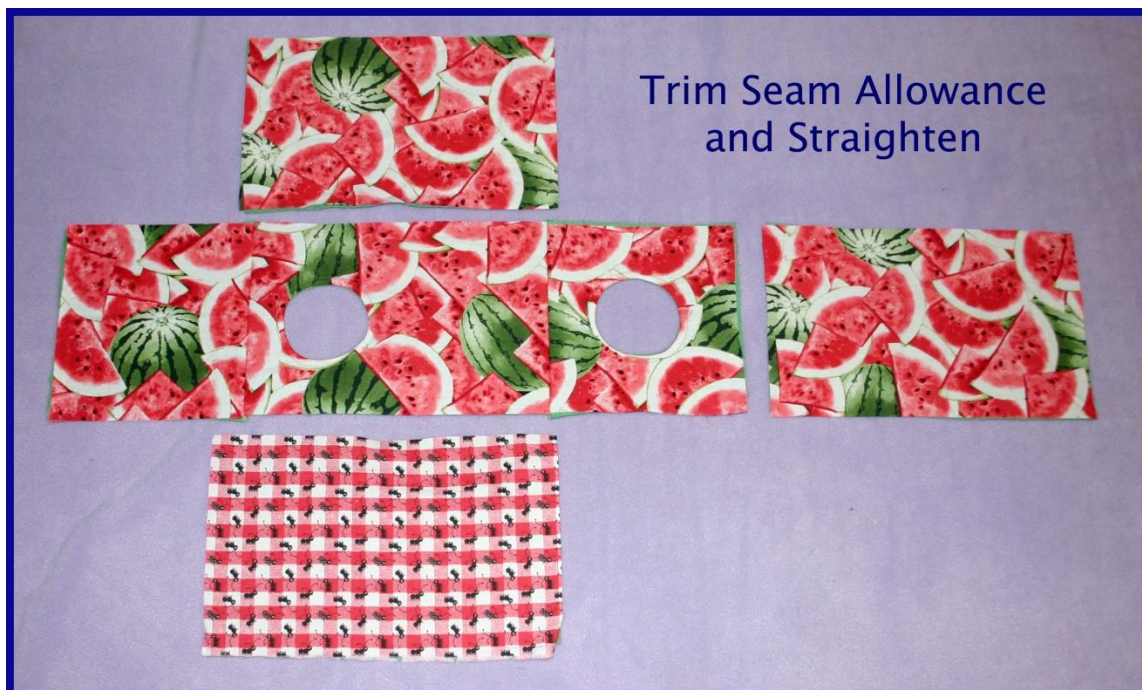13. **Sew** along the pinned edge.
14. **Trim** excess thread and seam allowance.
15. **Open** (straighten) the two panels (like a book), and place **cotton side up.**

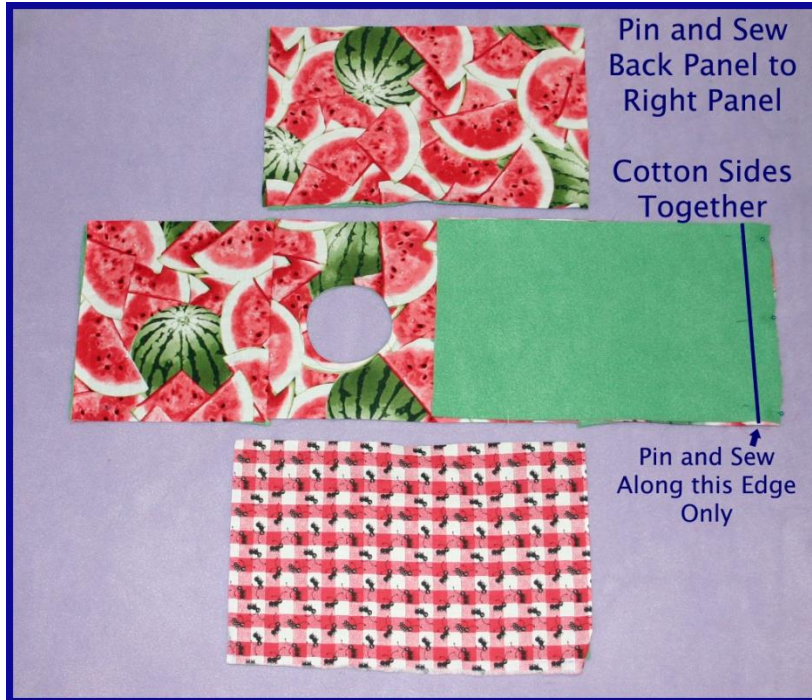16. **Fold** the back panel across to the left panel and **pin** the raw edges together, **right sides of the cotton together.**

17. **Trim** excess thread and seam allowances. You should now have a cube without a top or bottom.
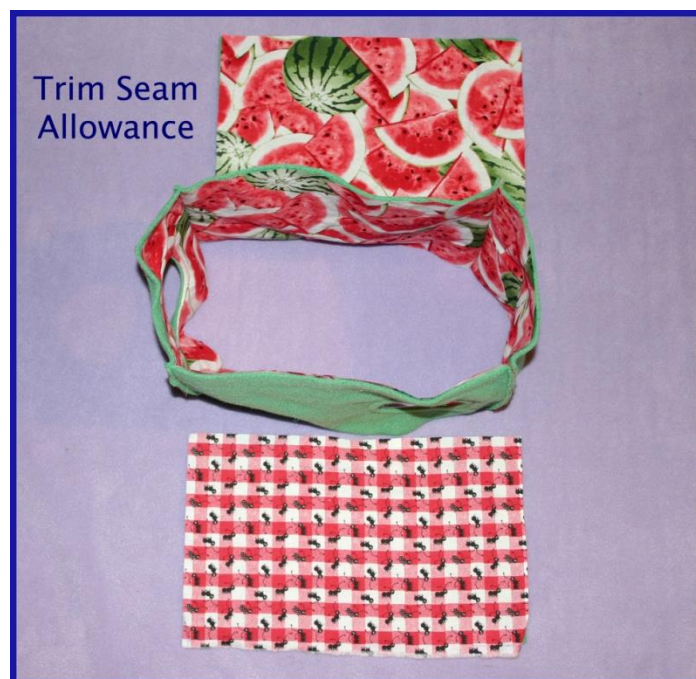
18. **Pin** the top panel to the front panel along the top edge, **right cotton sides together**.

19. **Pin ribbon loops** to the top edge of the left and right panels in each corner – pin to the cotton side of the panel. The raw edge of the loop should be lined up with the raw edge of the panel, with the fold of the loop pointed in.
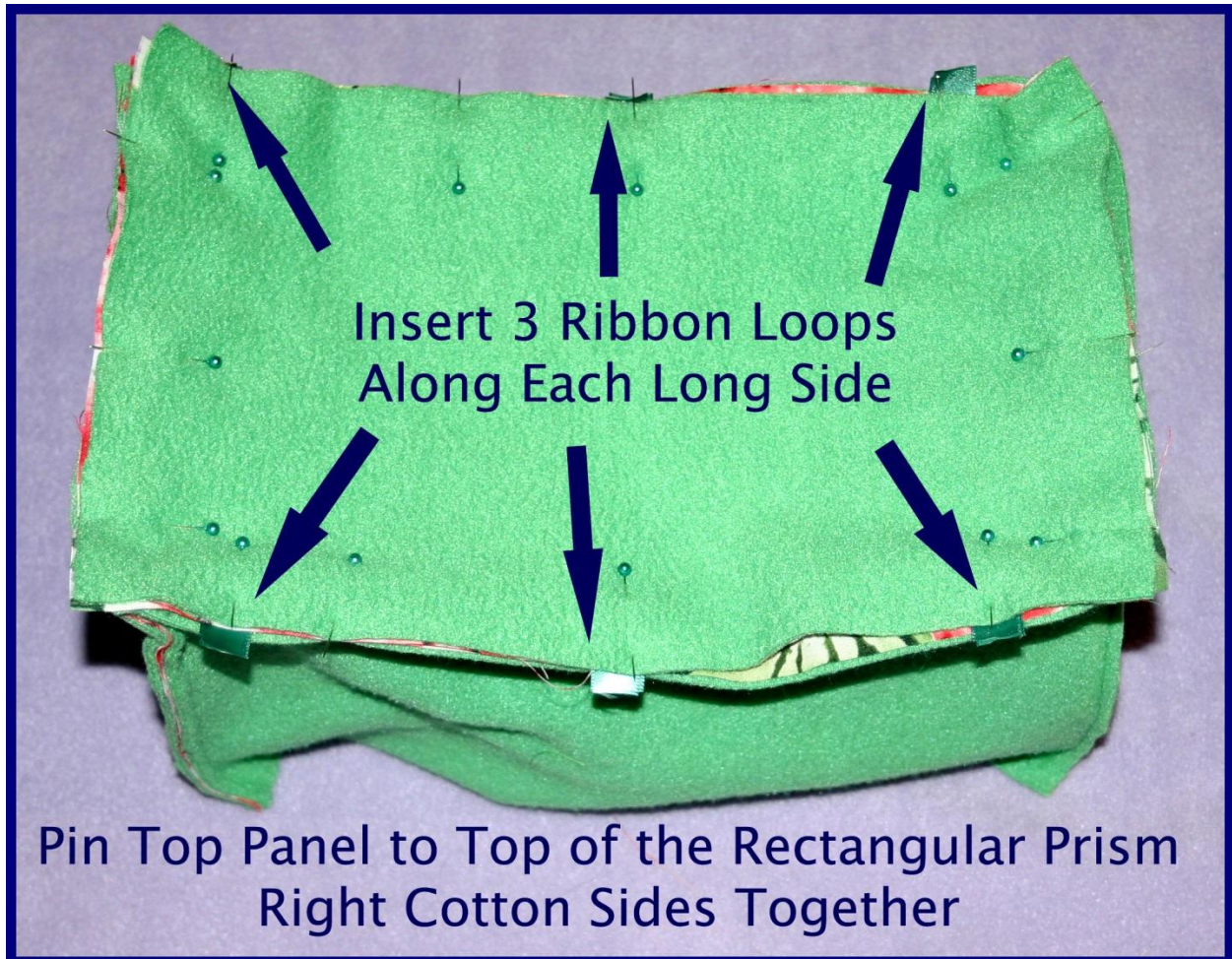
I like to pin and sew with the top panel facing up as shown here, but you can also pin and sew with the side panels facing up if you prefer.

20. **Sew** along the pinned edges.
21. **Trim** excess thread and seam allowances.

Sew Along Pinned Edges
Trim Seam Allowances

22. **Repeat Steps 18-21** to attach the bottom panel, without adding ribbon loops.

Pin and Sew the Bottom Panel to the
Rectangular Prism, Cotton (Right) Sides Together

23. **Turn the rectangular prism right side out.**

Turn Rectangular
Prism Right-Side Out

24. **Hang.** Note: you can either hang by the ribbons like a hammock, or you can set it on the ground and use the hanging ribbons to ensure it does not collapse on itself.

Corner Hut

Materials

Cotton or Flannel

- (2) 7" x 11" rectangles (sides)
- (1) 7" x 15 ½" rectangle (front)
- (2) 11" x 11" right triangles / 15 ½" hypotenuse (top and bottom)

Fleece

- (2) 7" x 11" rectangles (sides)
- (1) 7" x 15 ½" rectangle (front)
- (2) 11" x 11" right triangles / 15 ½" hypotenuse (top and bottom)

Extras

- Thread (match to fleece)
- 6 Pieces of Ribbon for Hanging Loops

Finished Size

- 6" tall, sides 10" long, front 14 ½" long

Description

Similar to a cube, but designed to hang in a corner. These dimensions work well for attaching to the vertical bars of the Critter Nation.

Instructions

1. **Cut Your Fabric –** Cut the fabric to the dimensions listed in "Materials" and shown below. To cut the top and bottom triangles, cut an 11" square and cut in half diagonally.
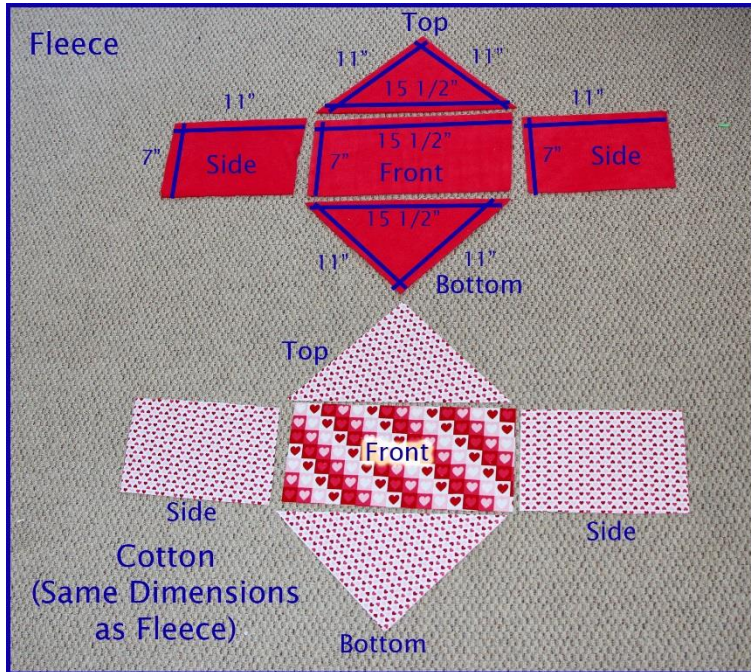
2. **Make Your Entrance Panels.**

    k. **Pin** the front cotton panel to the front fleece panel, **right sides together.**
    l. **Trace a circle** (or other shape) onto the center of the fabric. I find a Morton's Salt container is about the perfect size.

> **m. Sew** along the circle.

Sew Around the Opening/Entrance Hole

n. **Cut** out the center of the circle, being careful not to cut through your stitches.

Cut Out the Opening Inside the Stitching

o. **Separate** the cotton from the fleece and pass the cotton through the hole to the other side of the fleece, turning the panel **right-side out**.

p. **Smooth** out the cotton over the fleece. The right side of the cotton should now be facing out.

q. **Top stitch** around the opening.

Turn Right-Side Out Through the Opening

Top Stitch Around the Opening

r. **Repeat steps a through g** for the side panels if you would like to have entry holes on the sides. My rats will chew their own if I don't make them side openings.

Repeat for Side Panels if Desired

3. If you did not make side entrance holes, **place** the cotton side pieces over the fleece side pieces, **right sides out.** If your fabric is directional, make sure to line up the front and side panels with the bottom of the print at the bottom of the panel.

4. **Pin ribbon loops** to the right side of the front panel, with the cut edge of the ribbon aligned with the cut edge of the fabric. Leave one inch above the top ribbon and below the bottom ribbon for seam allowances.

Pin Ribbon Loops to One Side Edge of the Front Panel

Line Up Cut Edge of Ribbon with Edge of Panel

5. **Pin** the right side panel to the right edge of the front panel, **right cotton sides together.** For directional prints, make sure the bottom of the print is at the bottom of the hut.

Pin One Side Piece to Front Piece Along the Edge With The Ribbons

Pin ➡

Right Cotton Sides Together
Right Fleece Sides Out

6. **Sew** along the pinned edge and **trim** the excess thread and seam allowances.

Sew Along Pinned Edge ➡

Trim Seam Allowance

7. **Repeat Steps 4-7** to attach the other side panel and ribbon loops.

Repeat to Attach Other Side Panel

8. **Pin ribbon loops** to the raw edge of one of the side panels.

Pin Ribbon Loops to One Side Piece

9. **Fold** the other side panel across to the panel with pinned ribbon loops and **pin** the raw edges together, **right sides of the cotton together.**

Fold Over and Pin the Edge of Both Side Pieces Together

Pin
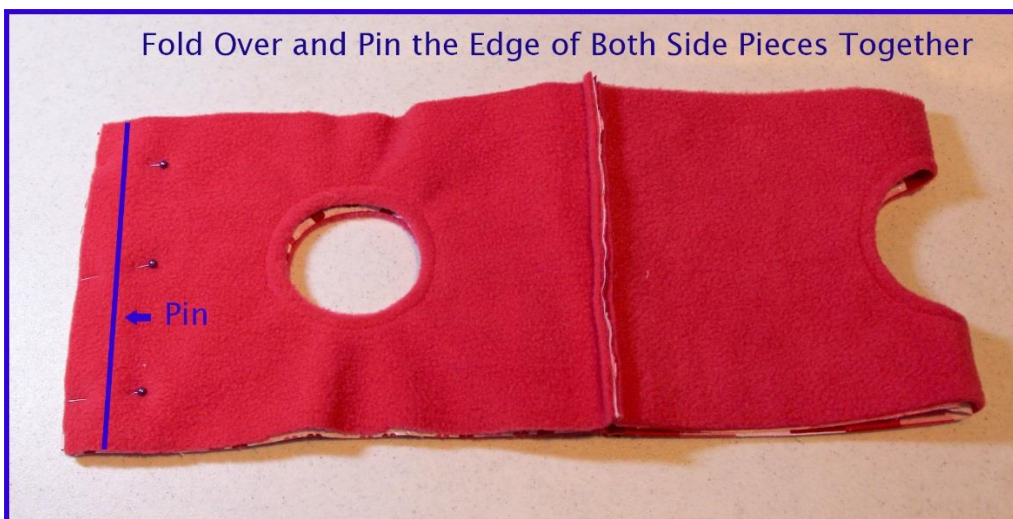
10. **Sew** across the pinned edge.
11. **Trim** excess thread and seam allowances.

Sew Along Pinned Edge and Trim Seam Allowance

←Sew

You should now have a triangular hut without a top or bottom.

Completed Front and Sides

12. **Pin** the ribbon loops toward the middle of the hut, away from the raw edges at the top and bottom (to prevent them from getting caught in the top and bottom seams).

Pin the Ribbon Loops Away from Top and Bottom Edges

13. **Place** the top and bottom cotton triangles over the top and bottom fleece triangles, **right sides out.**
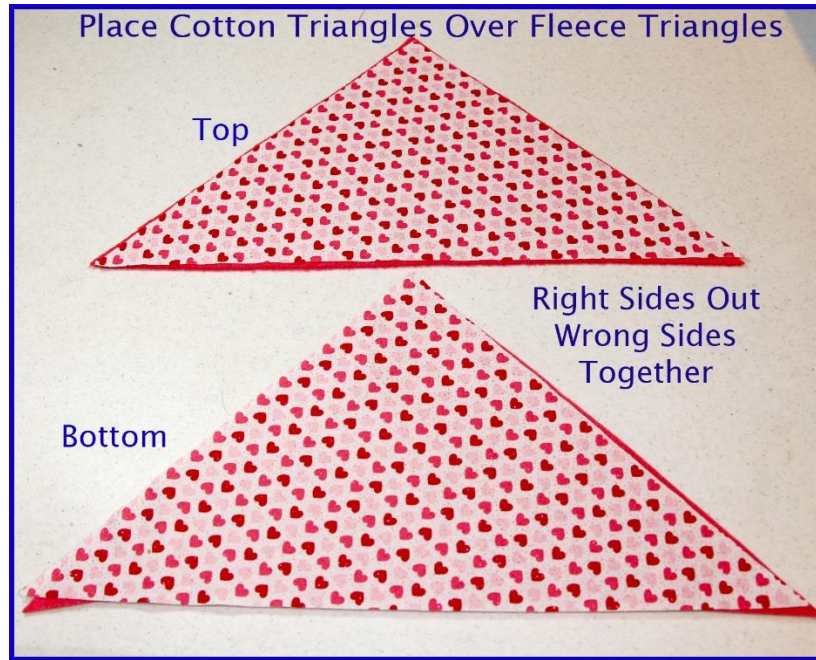
14. **Pin** the top panel to the front and side pieces along the top edge, **right cotton sides together**.
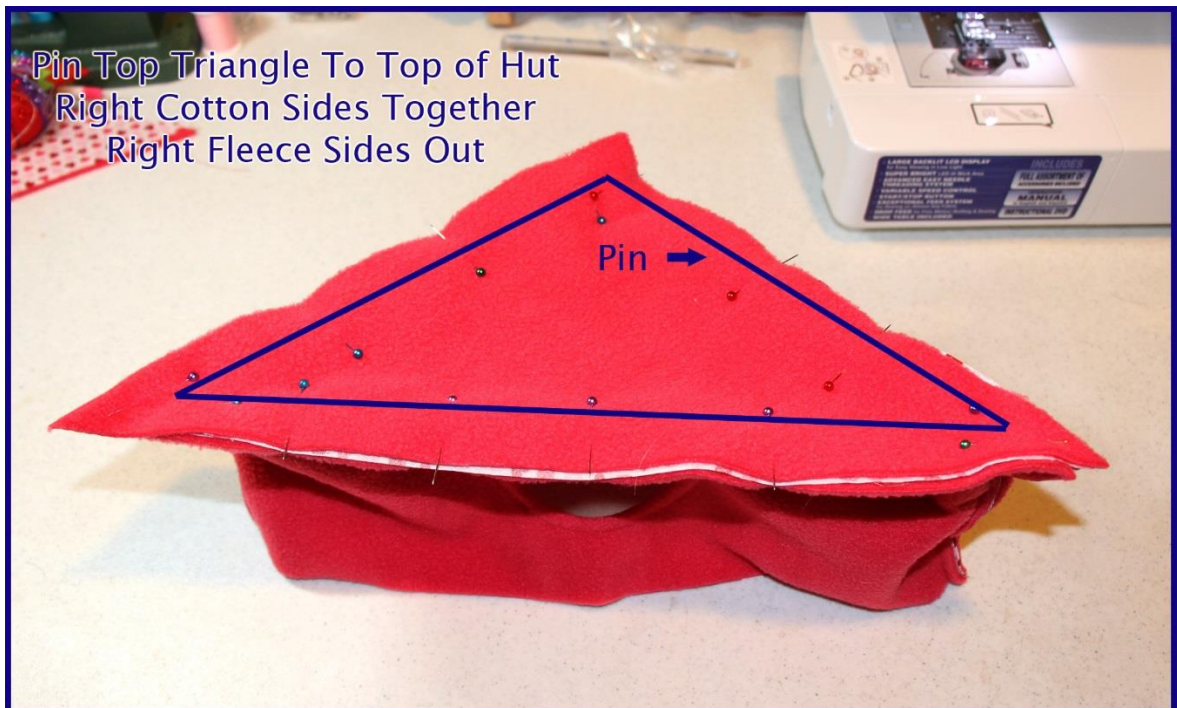
15. **Sew** along the pinned edges, starting from the back corner (the right angle). I have found that I sometimes don't manage to "close" the top panel all the way if I start at one of the acute side angles).

16. **Trim** excess thread and seam allowances.
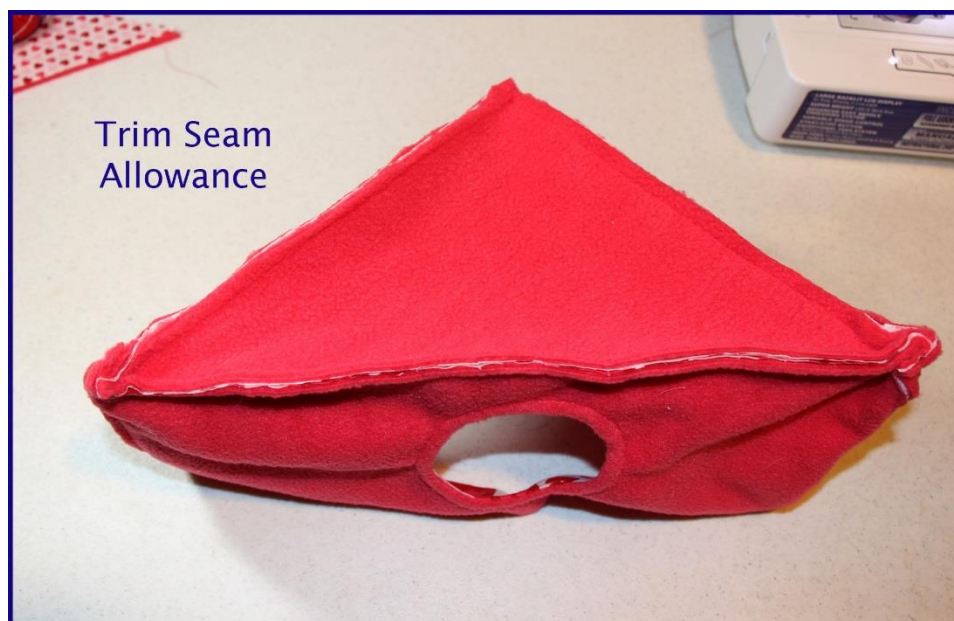
17. **Repeat Steps 14-16** to attach the bottom panel.

18. **Turn hut right-side out.**

19. **Hang!** Note that the corner hut is easy to hang because all three corners of the hut can be attached to the cage side bars and do not require access to the cage top. Loops on the top and bottom help support the hut and prevent sagging.

Corner Hut

Corner Hut Side View

House

Materials

Cotton or Flannel

- (1) 8" x 8" squares (Floor)
- (2) 8" x 6" rectangles (Sides)
- (2) house shaped pentagrams (8" base, 6" sides, 10" height) (Front/Back)
- (2) 8" x 6 5/8" rectangles (Roof)

Fleece

- 1) 8" x 8" squares (Floor)
- (2) 8" x 6" rectangles (Sides)
- (2) house shaped pentagrams (8" base, 6" sides, 10" height) (Front/Back)
- (2) 8" x 6 5/8" rectangles (Roof)

Extras

- Thread (match to fleece)
- 6 Pieces of Ribbon for Hanging Loops

Finished Size

- 7" x 7" x 9" house

Description

The house is a variation on the cube – I usually use it in themed cages (haunted house for Halloween, gingerbread house for Christmas, bird house for bird/spring theme, etc). The peaked roof is a little more tricky to pin and sew than the flat roof of a cube, so I would recommend mastering the cube before trying the house. I like to use a patterned fabric for the roof and a solid color for the front/sides – with machine embroidery to bring out the look.

Instructions

1. **Make a Template** of front/back house shape and the other pieces if desired (optional).
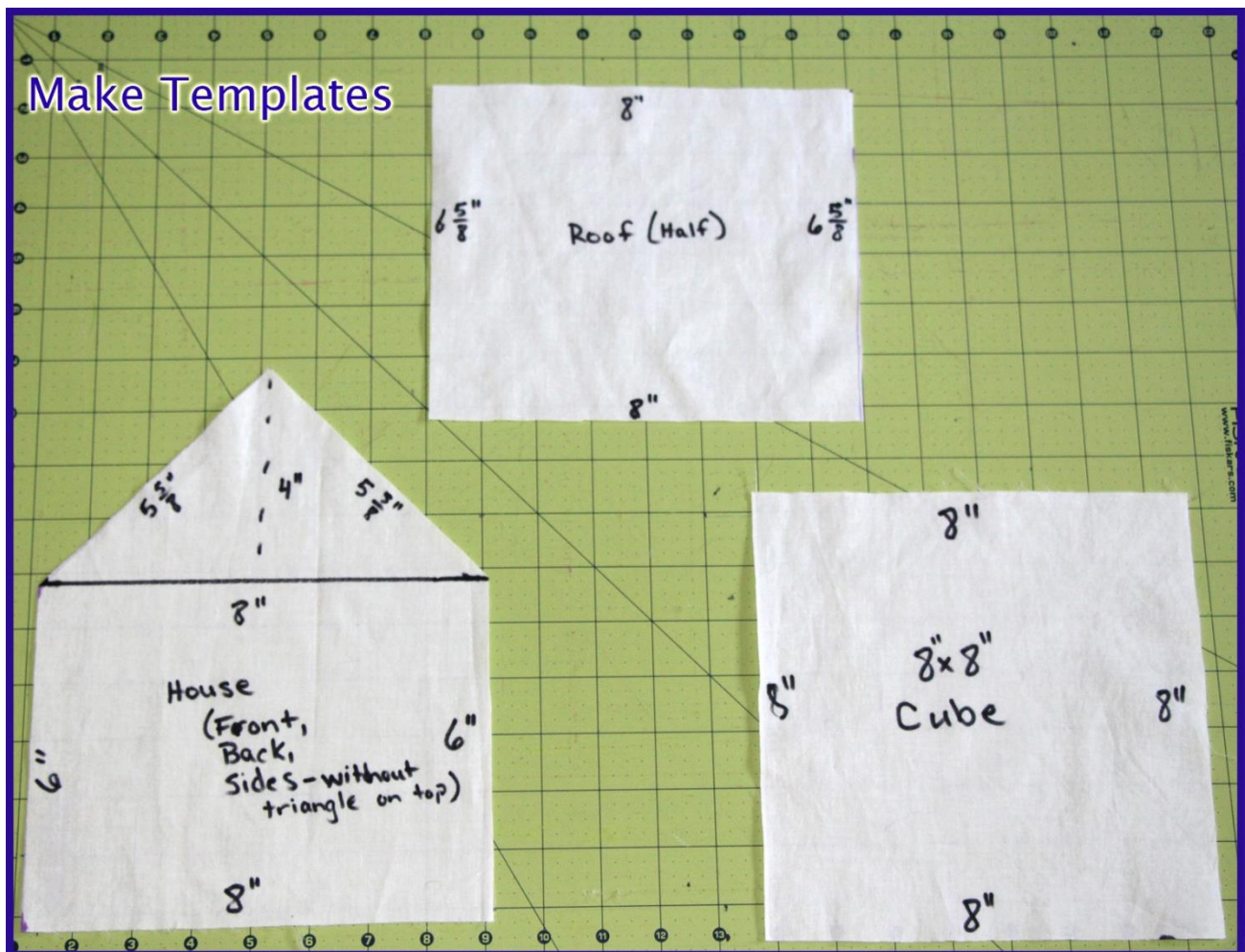
2. **Cut Your Fabric** as described in the Materials section (2 house shaped fronts, 2 rectangular sides, 2 roof halves, and 1 bottom). Make one set in the cotton and one set in the fleece.

3. **Make Your Entrance Panels**

    a. **Pin** one cotton house-shaped piece to one fleece house-shaped piece, **right sides together.**

    b. **Trace a door** onto the fabric, leaving at least an inch of space below.

NOTE: I make a door on both the front piece and the back piece. If there is no back door, my rats will usually create one themselves.
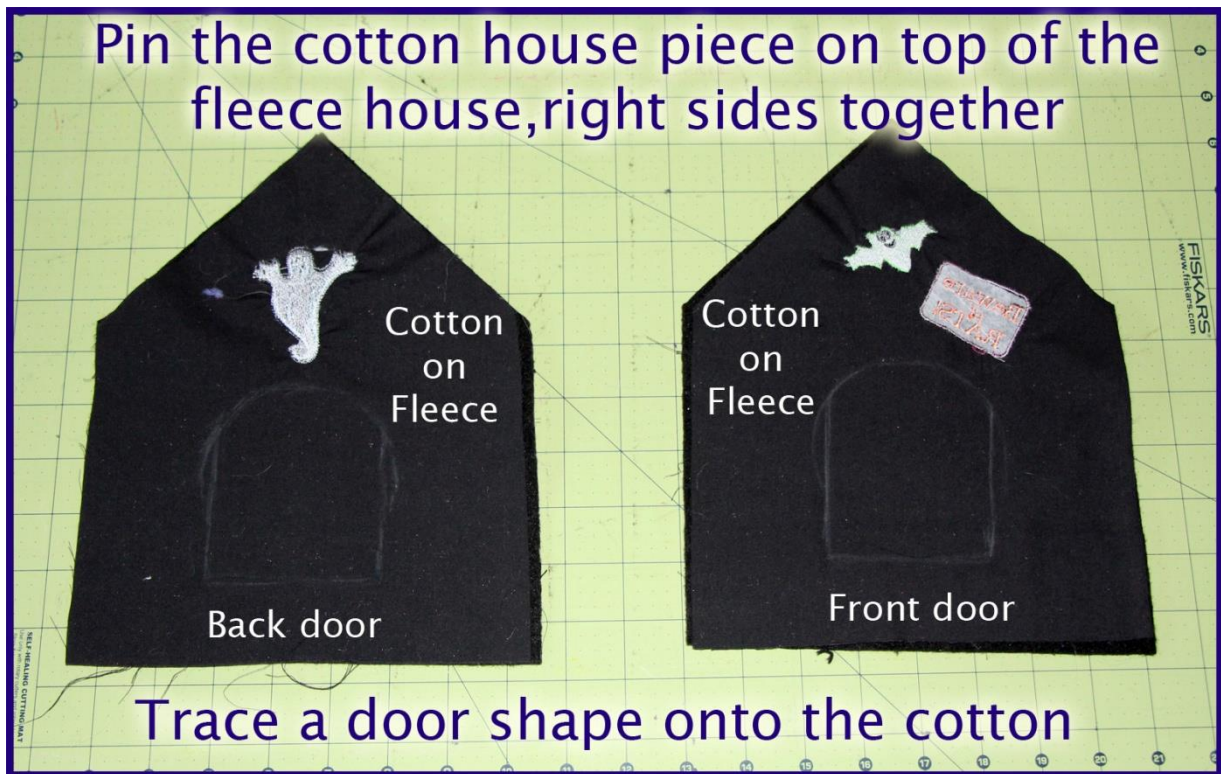
c. **Sew** along the door outlines.
d. **Cut out** the center of the doors.

Sew Along the Door Outline

Front Door

Back Door

Cut out Center of Door

e. **Separate** the cotton from the fleece and pass the cotton through the hole to the other side of the fleece.
f. **Smooth** out the cotton over the fleece. The right side of the cotton should now be facing out.
g. **Top stitch** around the opening.

Pass the Cotton through the Door so the Right Side is Out

Back Door

Beware of RATS!

Front Door

Top Stitch around the Door Opening

4. **Place** the remaining cotton side pieces over the remaining fleece side pieces, **right sides OUT!** I find it helps to position the sides in the order they will appear in the house. If your fabric is directional, make sure to line up the pieces with the bottom of the print at the bottom of the panel.

Position Cotton Over Fleece
Wrong Sides Together (Right Sides Out)

Back Panel   Side Panel   Front Panel   Side Panel

5. **Pin** a side panel to the front panel along one edge, **right sides of the cotton together.**
6. **Sew** along the pinned edge.

Pin and Sew
Side Panel to Front Panel
Cotton Sides Together

Pin and Sew
Along One Side Only ➡

7. **Trim** the excess thread and the seam allowances.
8. **Open** (straighten) the two panels (like a book), and place **cotton side up.**

9. **Pin** the back panel to the side panel along the right edge, **right sides of cotton together.**
10. **Sew** along the pinned edge.

11. **Trim** excess thread and seam allowance.
12. **Open** (straighten) the three panels, and place **cotton side up.**

13. **Pin** the remaining side panel to the back panel along the right edge, **right sides of cotton together.**
14. **Sew** along the pinned edge.

15. **Trim** excess thread and seam allowance.

16. **Open** (straighten) the two panels (like a book), and place **cotton side up.**

17. **Fold** the side panel on the end across to the front panel and **pin** the raw edges together, **right sides of the cotton together.**

18. **Sew** along the pinned edge.

19. **Trim** excess thread and seam allowances. You should now have a house without a roof or bottom.

Trim
Seam Allowance

20. **Place** the roof cotton pieces over the roof fleece pieces, **wrong sides together** (right sides out).
21. **Pin** a ribbon loop to each end of the top side of one roof panel.

Position Roof Cotton Pieces on Roof Fleece Pieces, Wrong Sides Together (Right Side Out)

Pin Ribbon Loops to the Top Side of One Roof Panel

22. **Place** second roof panel on top of first roof panel, right cotton sides together.
23. **Pin and Sew** along top edge (same edge with pinned ribbon loops).

Ribbon Loops Are Pinned Inside

Pin and Sew Along Top Edge

Pin Roof Panels Together Along Top Edge
Cotton Sides Together

24. **Trim** Seam Allowance.
25. **Open** Flat

Trim Seam Allowance and Open Flat

26. **Pin** roof to top of house, **cotton sides together, inserting ribbon loops** at each end of each side house panel, and making sure the roof seam aligns with the peak of the roof on the front and back house panels.
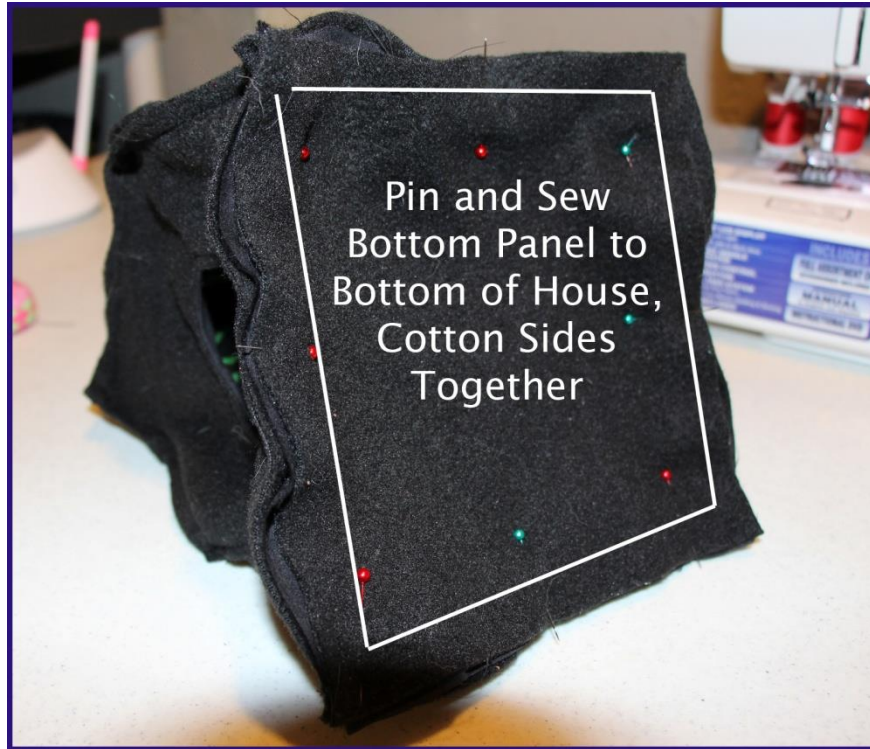27. **Sew** along pinned edges.

Pin and Sew Roof to House Cotton Sides Together

Roof Seam is at Peak →

Ribbon Loops

Pin and Sew Along Edges

28. **Trim** seam allowances.

Trim Seam Allowances

29. **Pin** the bottom panel to the bottom of the house, **cotton sides together.**
30. **Sew** along pinned edge.

Pin and Sew
Bottom Panel to
Bottom of House,
Cotton Sides
Together

31. **Trim** excess thread and seam allowances.

Trim Seam
Allowances

32. **Turn house right side out.**

Turn House Right-Side Out

Pumpkin

Materials

Cotton or Flannel

- (6) Petal-shaped pieces (12.5" long x 5" wide at center)
- Scrap pieces in a different color for jack-o'-lantern face (optional)

Fleece

- (6) Petal-shaped pieces (12.5" long x 5" wide at center)
- (3) strips of fleece for stem (Optional – ribbon loop can be used instead)
- (2) 7" circles for inside pad (Optional)

Cotton Batting

- (6) Petal-shaped pieces (12.5" long x 5" wide at center)
- (1) 7" circle for inside pad (Optional)

Extras

- Thread (match to fleece)
- 1 Piece of Ribbon for Stem if not using fleece

## Finished Size

- 8" diameter

Description

The pumpkin is my own design – I have been experimenting with getting the right size and shape for a while, and I think this one gets it right. I have added cotton batting to the design because it makes a difference in supporting the structure and maintaining the rounded shape. This design can also be used to make anything spherical in shape: eg, a beach ball.

Instructions

1. **Make a Template** of the petal shaped piece that is 12.5" long and 5" wide at the center and looks something like the one shown below:
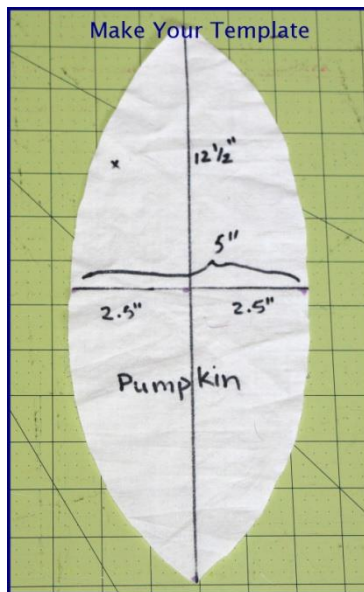
2. **Cut Your Fabric.** You will need six petal shapes in each material: cotton, fleece, and batting.
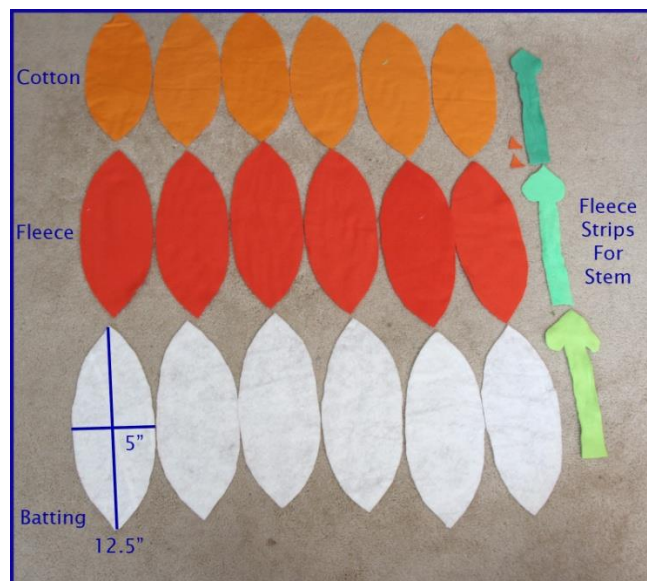
a. If you would like to make a **braided stem**, you will need three strips of fleece. I chose to cut a leaf shape at the end of each strip. The length is optional – my strips were about 7.5" long, not including the leaf at the end.

b. If you would like to make a **jack-o'-lantern face** on your pumpkin, you should cut shapes from a different color of cotton for all the features except for the mouth (in my case, I cut two triangles for eyes in a darker orange cotton).

NOTE: Steps 3-5 make it easier at the end to sew through all the layers of fabric that meet at the top and bottom of the pumpkin. I added these steps after photographing the tutorial, so in subsequent pictures, the excess batting at the ends will not be trimmed.

3. **Pin** the batting pieces to the fleece pieces, **fleece right side up**.

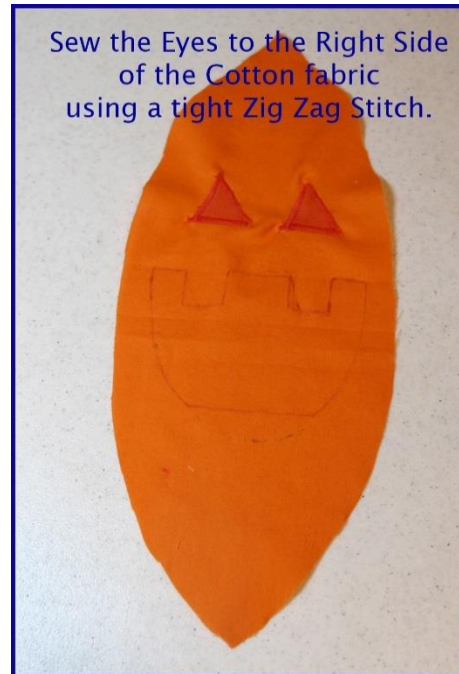Pin Fleece to Batting (Fleece Right Side Up) at each end

4. **Sew** the fleece to the batting with a short line at each end, about 1 ¼" from each end.
5. **Trim** away the extra batting at each end of the section.

Sew Fleece to Batting 1 1/4" from each end.
Trim Excess Batting From Ends
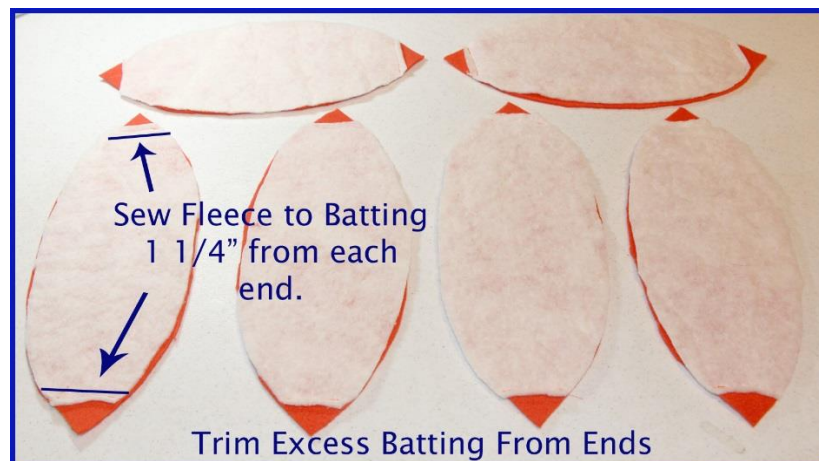
6. Using one of the cotton petal-shaped pieces, **draw the outline of your opening** on the **wrong side of the fabric.** (If you are making a jack-o'-lantern face, this will be the mouth. If you are just making a pumpkin, it can be a standard circle opening). The bottom of my opening was 4" above the bottom point of the fabric, putting it about level with the floor of the pumpkin when finished.

7. Turn the cotton piece over and **pin the jack-o'-lantern features to the fabric (optional)**. (I traced my mouth on both sides of the fabric in a disappearing ink marking pen to better position the eyes).
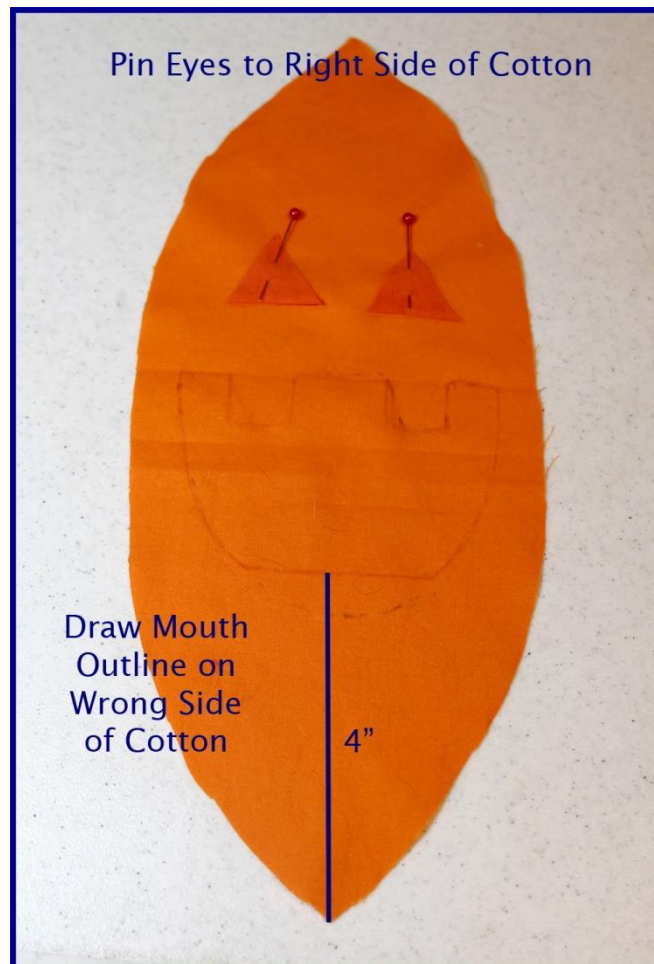
8. **Sew** both eyes to the right side of the cotton using a dense zig zag stitch (I used a darker red thread to make the eyes stand out a little bit) **(optional)**.

9. **Pin** the cotton piece to the fleece and batting by layering as follows: batting layer, fleece right side up, cotton right side down (right sides together).
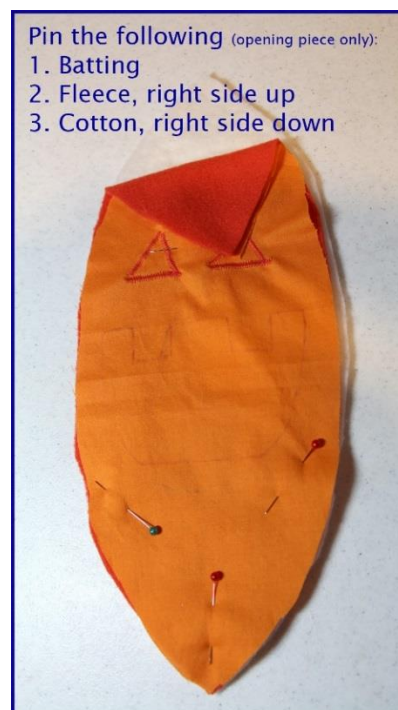
10. **Sew** along the outline of the opening (the mouth if making a jack-o'-lantern face).

Sew Along
the Opening
Outline

11. **Cut** out the fabric inside the opening, making sure not to cut the seam.

Cut out the
inside of the
opening

12. Turn the panel **right side out** by passing the cotton fabric through the opening and smoothing out on the other side.
13. **Top Stitch** around the opening.

14. If you would like a back door to your pumpkin, **repeat steps 6-13** (if you made a face on the front opening, you might prefer just a circle opening for the back door).

Note: Creating a back door will take a little away from the stability of the pumpkin and it might sag more than a pumpkin without a back door.

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15. **Layer** the remaining section pieces as follows: Fleece (right side down), Batting on top of Fleece, Cotton (right side up) on top of Batting. (Batting and fleece will be sewn together already if you followed steps 3-5).
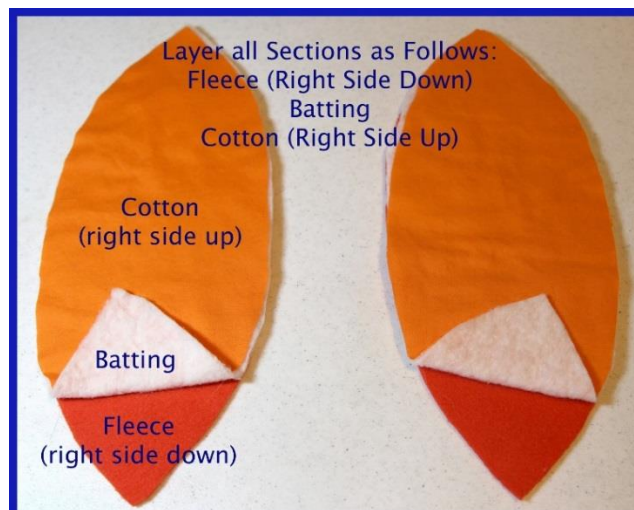
Note: Steps 16-17 are optional. I did not do this with the pumpkin in the tutorial, but have done it with subsequent pumpkins. It adds to the ridged sectional look of the pumpkin and it helps keep the batting fixed in place.

16. **Draw a Line** with a straight edge (using a washable/disappearing ink marking pen, pencil, or chalk) across each pumpkin section, from one point of the section to the other point.
17. **Sew** along the line across the pumpkin to help secure the batting in place.

18. **Make the Front Half of the Pumpkin**
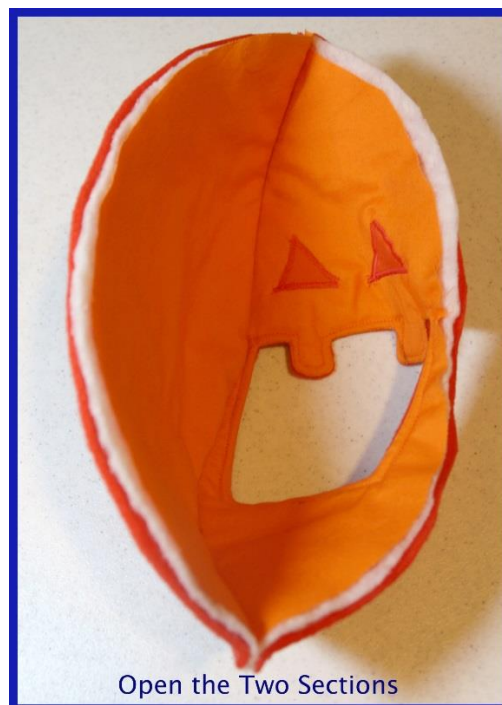   a. **Place** the section with the front opening on top of another section, **cotton sides together**.
    b. **Pin** along one curve of the section only.
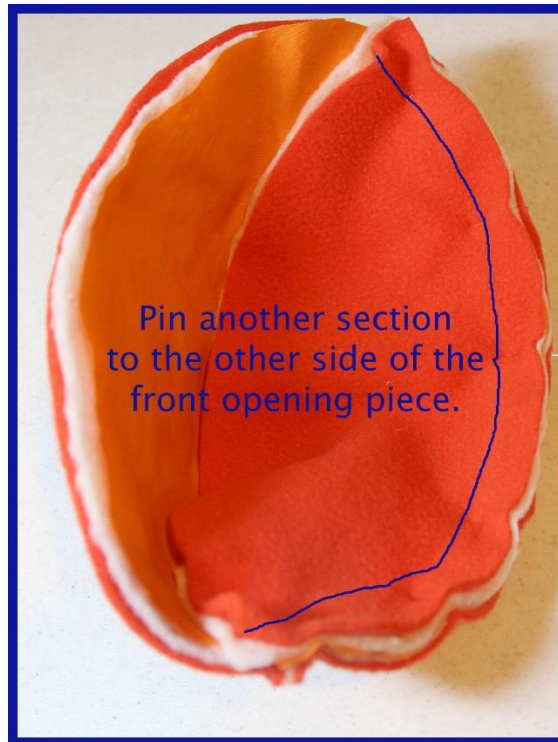
c. **Sew** along the pinned edge.

d. **Trim** the seam allowance.

Sew Along Pinned Edge and Trim Seam Allowance

e. **Open** the two sewn sections so that the cotton sides are exposed.

Open the Two Sections

f. **Pin** another section piece to the other side of the **front opening piece, cotton sides together.** This should position the opening section in the center of this half of the pumpkin.

Pin another section
to the other side of the
front opening piece.

g. **Sew** along pinned edge.
h. **Trim** seam allowance.

Sew Along Pinned Edge
Trim Seam Allowances
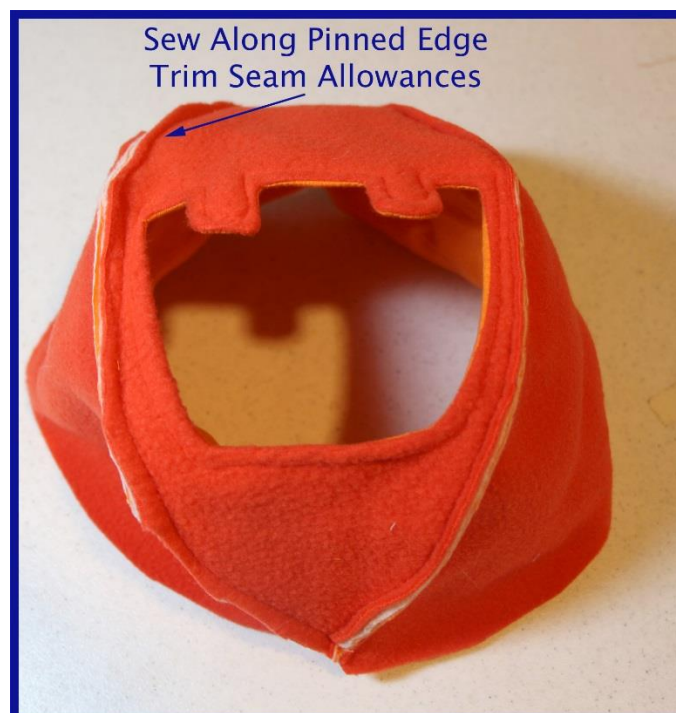
      i.   **Set Aside** front half of the pumpkin while you make the back half of the pumpkin.

19. **Repeat Step 18 a-j** to make the back half of the pumpkin. When you are finished you should have two separate pumpkin halves.

20. **Pin** the bottom edge of the three stem pieces of fleece (or the ribbon loop) to the top of the front of the pumpkin.

To minimize the amount of fabric I must sew through, I trimmed the bottom of the stems to make them narrow where I sew and I pinned the three pieces next to each other instead of on top of each other. See photo below.

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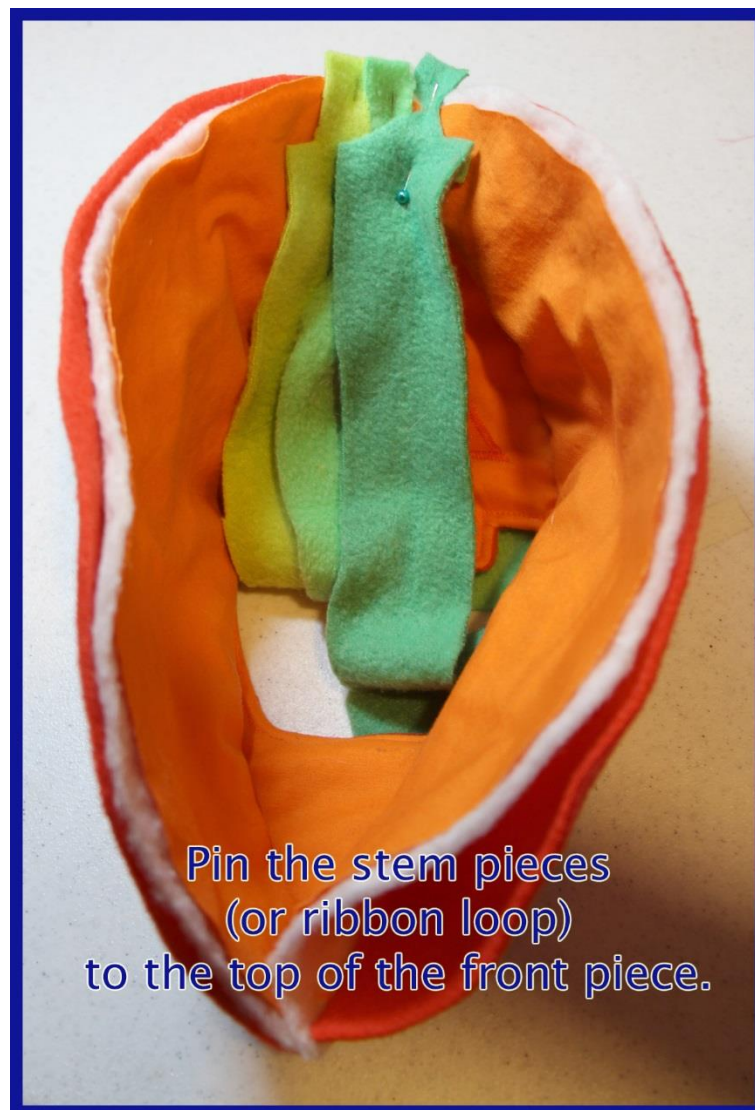
21. **Pin** the front half of the pumpkin to the back half of the pumpkin, cotton sides together.

22. **Sew** around the pinned circumference of the pumpkin.

NOTE: The top pole and the bottom pole of the pumpkin require sewing through many layers of fabric. For the pumpkin shown here, I had to stop the machine and manually turn the needle, raising the presser foot at certain points and moving the fabric manually. The modified design with the batting trimmed away from the points allowed my machine to sew the entire pumpkin without intervention. If your presser foot does not raise high enough to pass through the very top point and the very bottom point, you may want to sew the rest by machine and the top and bottom by hand.

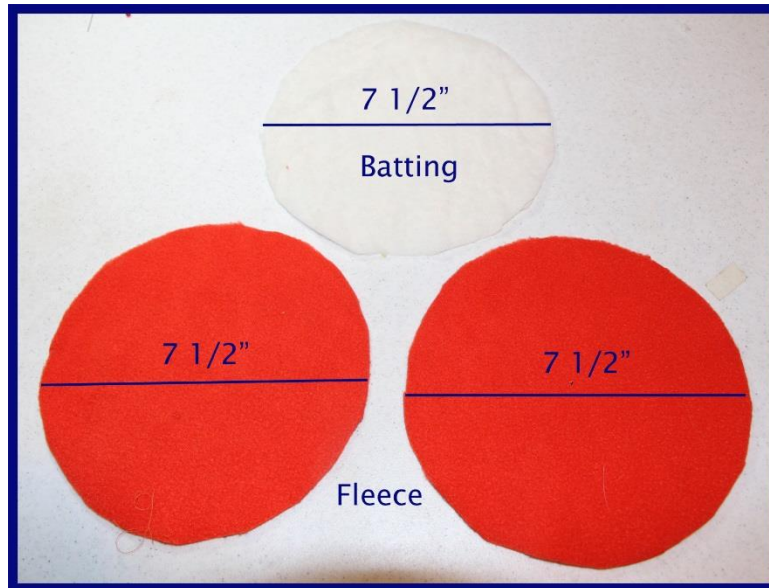23. **Trim** seam allowances.
24. Turn pumpkin **right-side out.**
25. **Braid fleece stem**. You can insert a split ring into the stem for hanging (so that the rats do not trample the pumpkin flat), or just run a hammock hook through the braid.

Turn Right-Side Out and
Braid the Stem

26. If desired, **make a pad** for the floor of the pumpkin (or just cut some extra fleece and set inside). This makes a more comfortable bottom to lay on (although the rats may just drag it out).

   a. **Cut** two circles of fleece (about 7 ½" diameter) and one circle of batting.

   b. **Pin** the three layers together as follows: Batting, Fleece (Right-Side Up), Fleece (Right-Side Down).

c. **Sew** along the circumference of the pad, leaving an opening to turn the pad right side out.

d. **Trim** the seam allowances.

Sew around the circumference of the circle leaving an opening to turn right-side out.

Trim Seam Allowances
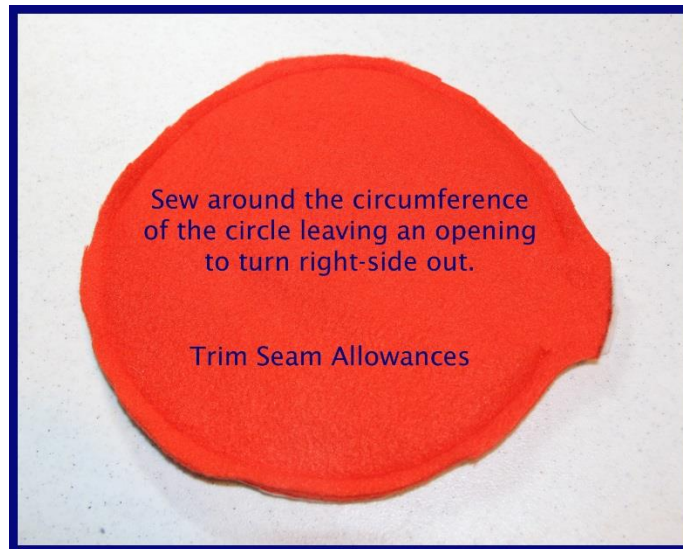
e. Turn pad **right-side out.**

f. **Slip-Stitch** the opening closed.

g. **Top-Stitch** around the edges and in a circle further in to secure the batting to the pad.

Turn Right-Side Out and Slip-Stitch Opening

Top Stitch to Secure Batting in Place

h. **Insert** pad into pumpkin.

Insert Pad Into Pumpkin

A Pumpkin Without a Face - With Stitching Across each Section.

Snuggle Sack

Materials

Cotton or Flannel

- 20"x13" rectangular piece

Fleece

- 20"x13" rectangular piece

Extras

- Thread (match to fleece)

Options

- To make your snuggle sack a different size, cut a rectangle that is twice the desired width plus 2", and 1" longer than the desired height.
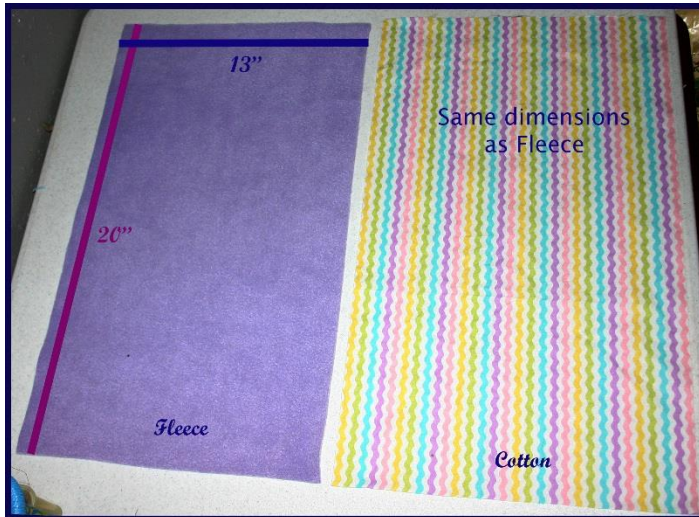
Finished Size

- 9.5" wide x 12" long

Description

The snuggle sack is a small bag with a comfy lining for your rats to climb inside and snuggle.

Instructions

1. **Cut Your Fabric**.

   (NOTE: The pieces in these photos were actually cut a little longer - 22" rather than 20" as marked - resulting in a slightly wider snuggle sack. I prefer 20" for rats. I've changed this dimension a few times [from 22" used for guinea pigs to 18" which was a little narrow for larger rats, and finally settling on 20"]).

2. **Fold** the cotton piece in half, right sides together, aligning the shorter sides and **pinning** together.
3. **Fold and pin** the fleece piece separately in the same manner.
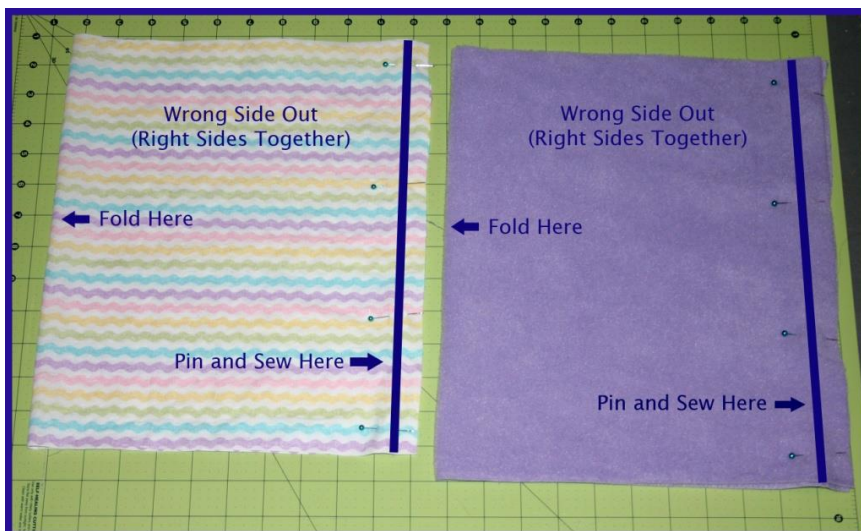
4. **Sew** along the pinned edge of the cotton piece. **Trim** excess thread and the seam allowance.

5. **Repeat** for the fleece piece. You should now have two tubes.

6. Turn the fleece tube **right-side out**.

7. **Insert** the fleece tube inside the cotton tube with the seams lined up (the right sides of both tubes should now be facing each other).

8. **Pin** the fleece liner to the cotton fabric on one side only, all the way around the opening of the tube (only pin together the two layers. Do not pin all four layers together).

Pin and Sew Around the Opening of One End Only
(This will be the open side of the sack)

Pin One Layer of Fleece to One Layer of Cotton
(DO NOT PIN ALL FOUR LAYERS TOGETHER!)

9. **Sew** around the opening of the tube through the two layers of fabric that are pinned together. Trim the excess thread and the seam allowance.

This end is not sewed!

This end has been sewed

10. **Open** up the tube so that it is one long tube with the fleece on side and the cotton on the other side, with the right sides of the fabric facing out.

Seam Sewed in Last Step ➡

Right Sides

Turn the Cotton Layer Right Side Out
(Separating the Cotton From the Fleece)

11. **Tuck** the cotton side of the tube inside the tube, so that the right side of the fleece is facing out, the wrong sides of both fabrics are facing each other, and the right side of the cotton is facing the inside of the tube.

This will be the closed end of the sack

Right Side

This will be the open end of the sack

Right Side

Insert the Cotton Side Inside the Fleece Side (Wrong Sides Together)

12. **Pin** all four layers of the cut edge of the tube together. This will be the bottom of the sack.

Right Side Fleece

Right Side Cotton

Align Raw Edges

Pin and Sew Through All Four Layers Here

Bottom of Sack

13. **Sew** the bottom seam through all four layers. **Trim** excess thread and seam allowance.

14. Turn the snuggle sack **right-side out**, so that the fleece is on the inside and the cotton is on the outside.

Top Stitch Around Opening

Sack Turned Cotton Side Out

15. **Top stitch** around the opening of the sack.
16. **Fold** the opening of the sack down to create a cuff.

17. **Add Grommets** if you would like to hang your snuggle sack.

Cuddle Cup

Materials

Cotton or Flannel

- 25"x5" rectangular piece (with opening cut out)
- 8" diameter circle

Fleece

- 25"x5" rectangular piece (with opening cut out)
- 8" diameter circle

Cotton Batting

- 25"x5" rectangular piece (with opening cut out)
- 8" diameter circle

Extras

- Thread (match to fleece)

## Finished Size

- About 7" diameter

Instructions

Note: To be honest, I am not very good at making the cuddle cup. Mine come out functional but a little irregular. I don't make them that often because my rats usually just flip them over and chew them up, so I haven't mastered the techniques.

In this tutorial, I used polyester batting. I have since switched to using cotton batting. It is easier to work with, absorbent and better for controlling odor, and it is less stringy, so it is safer for rattie toes.

1. **Create Templates.** You will need two template pieces: an 8" diameter circle for the bottom piece and a 25" x 5" rectangle with the opening cut out. I use a curved opening that is about 8" long and 2" deep.
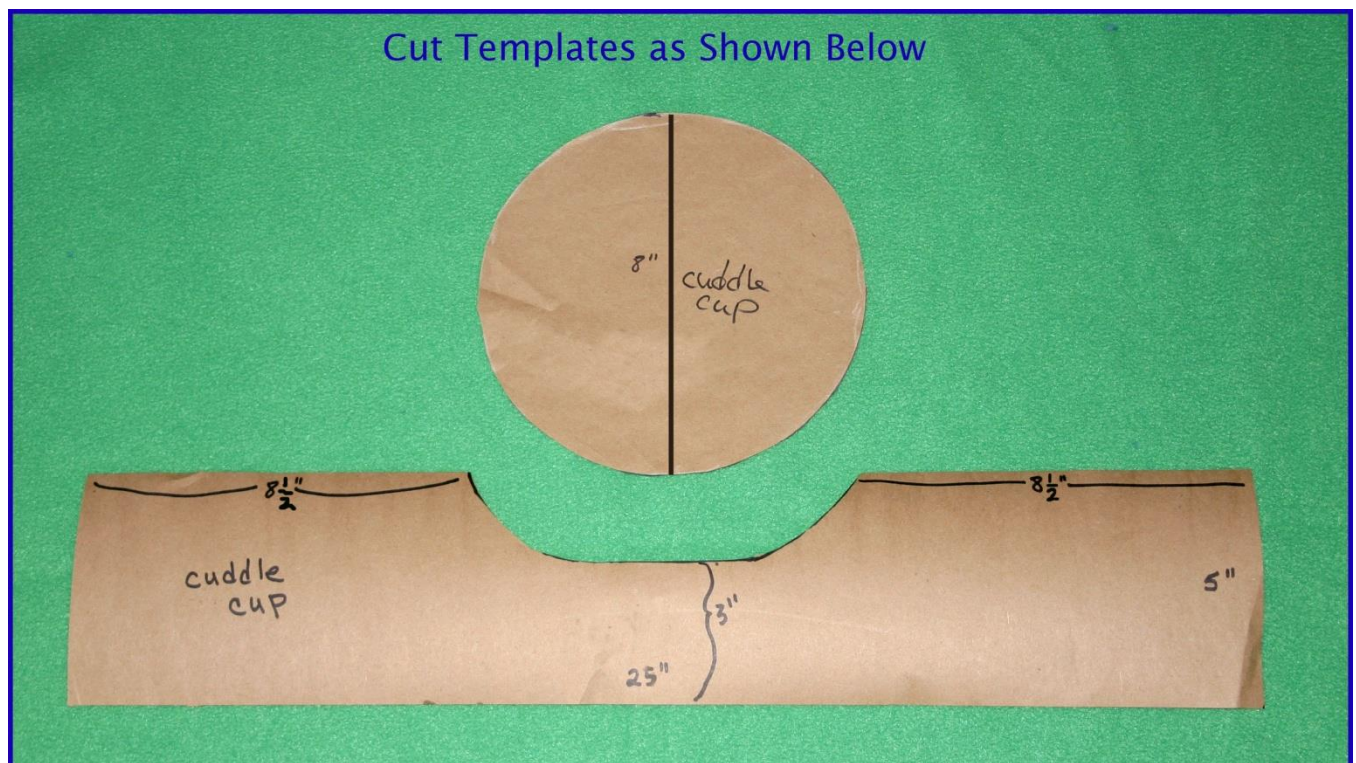
2. **Cut your Fabric.** Cut one copy of each piece from cotton, fleece and batting. The batting will add padding/softness and structure to the cuddle cup.
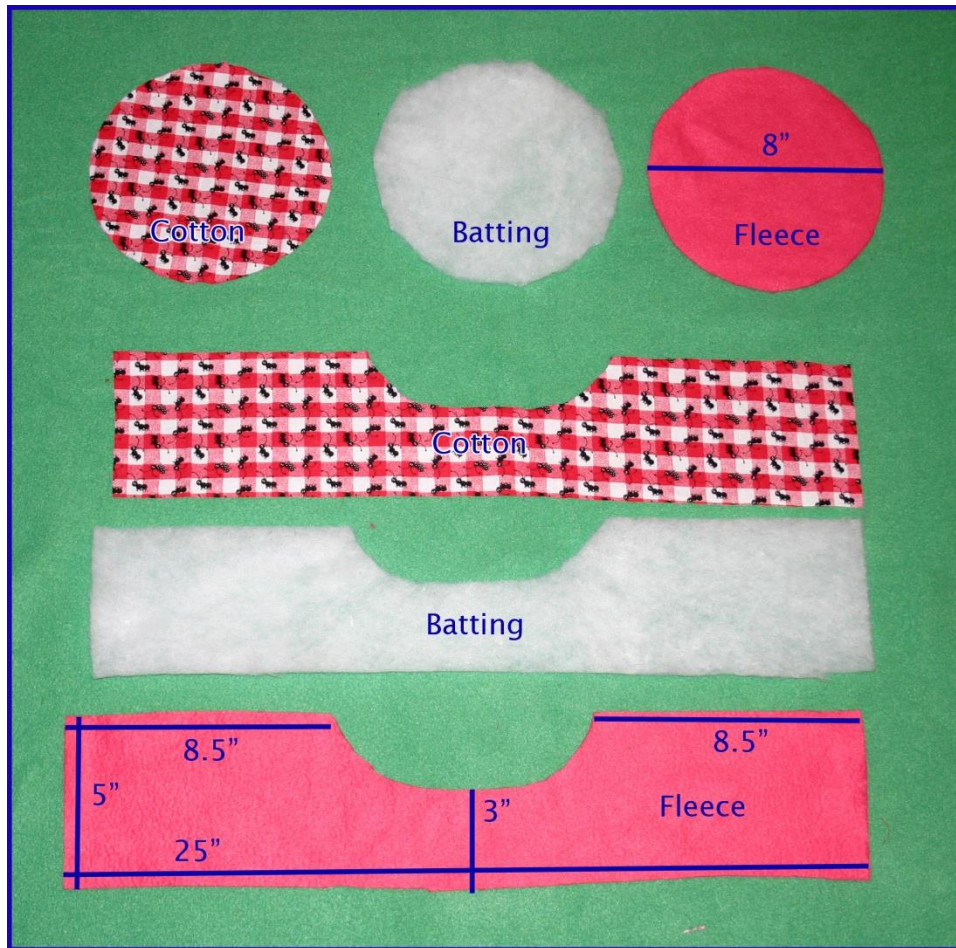
3. Place the cotton pieces **right-side up** on top of the batting pieces.

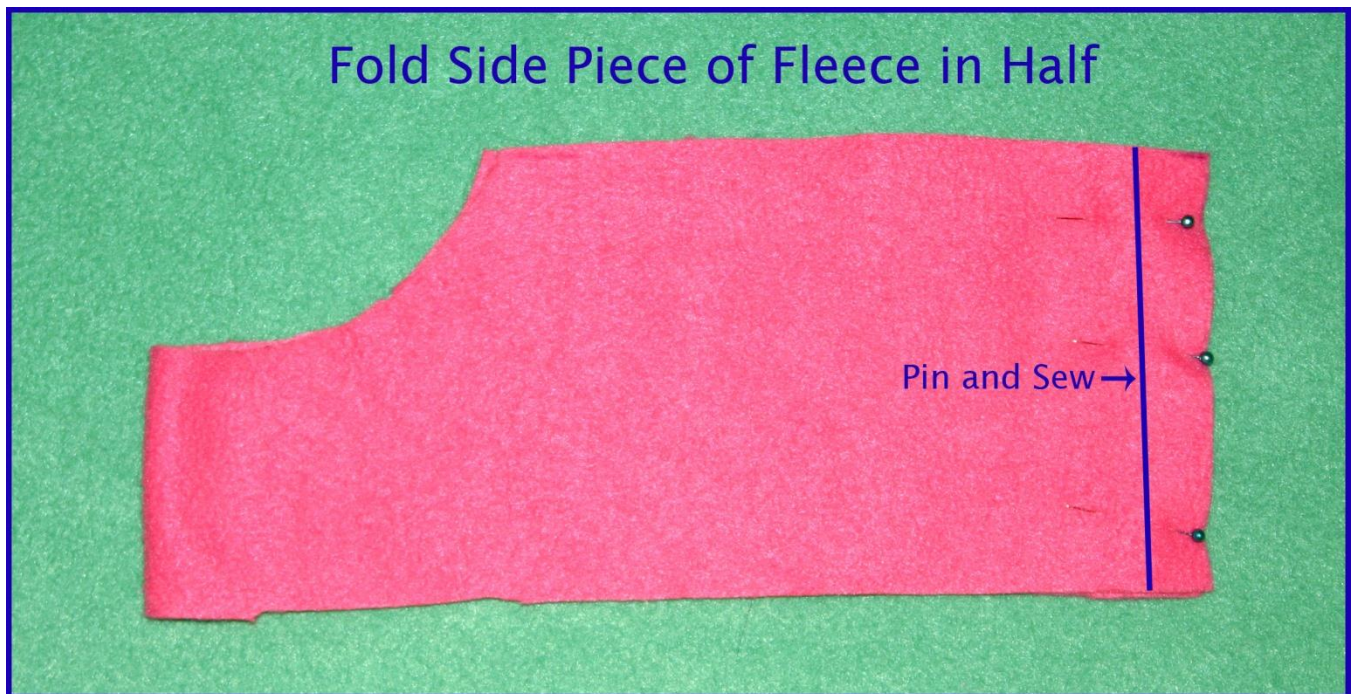4. **Fold** the side piece in half, cotton sides together.
5. **Pin** and **sew** along the aligned side.

Fold Side Piece in Half

Pin and Sew →

Cotton Right Sides Together
Batting side out
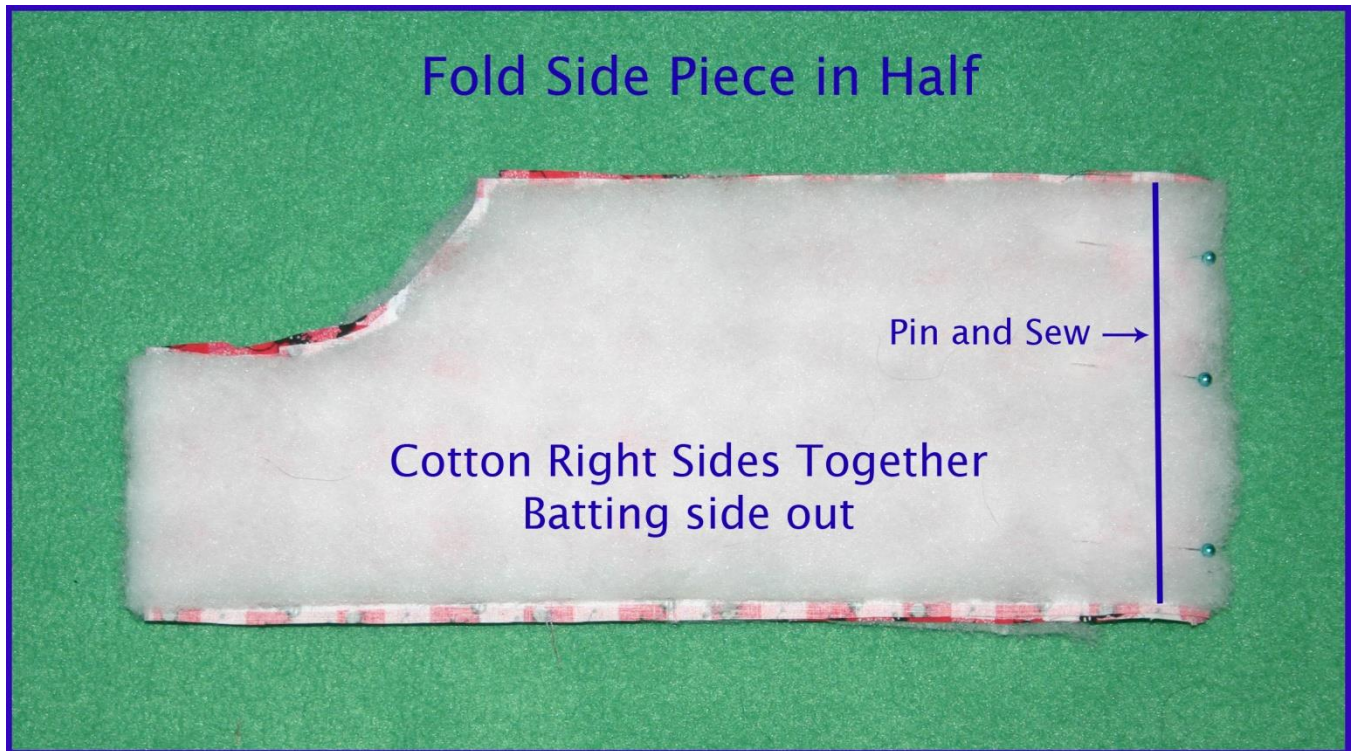
6. **Trim** seam allowances and thread ends.

Trim Seam Allowance

7. **Repeat Steps 4, 5, and 6** with the fleece side piece.

Fold Side Piece of Fleece in Half

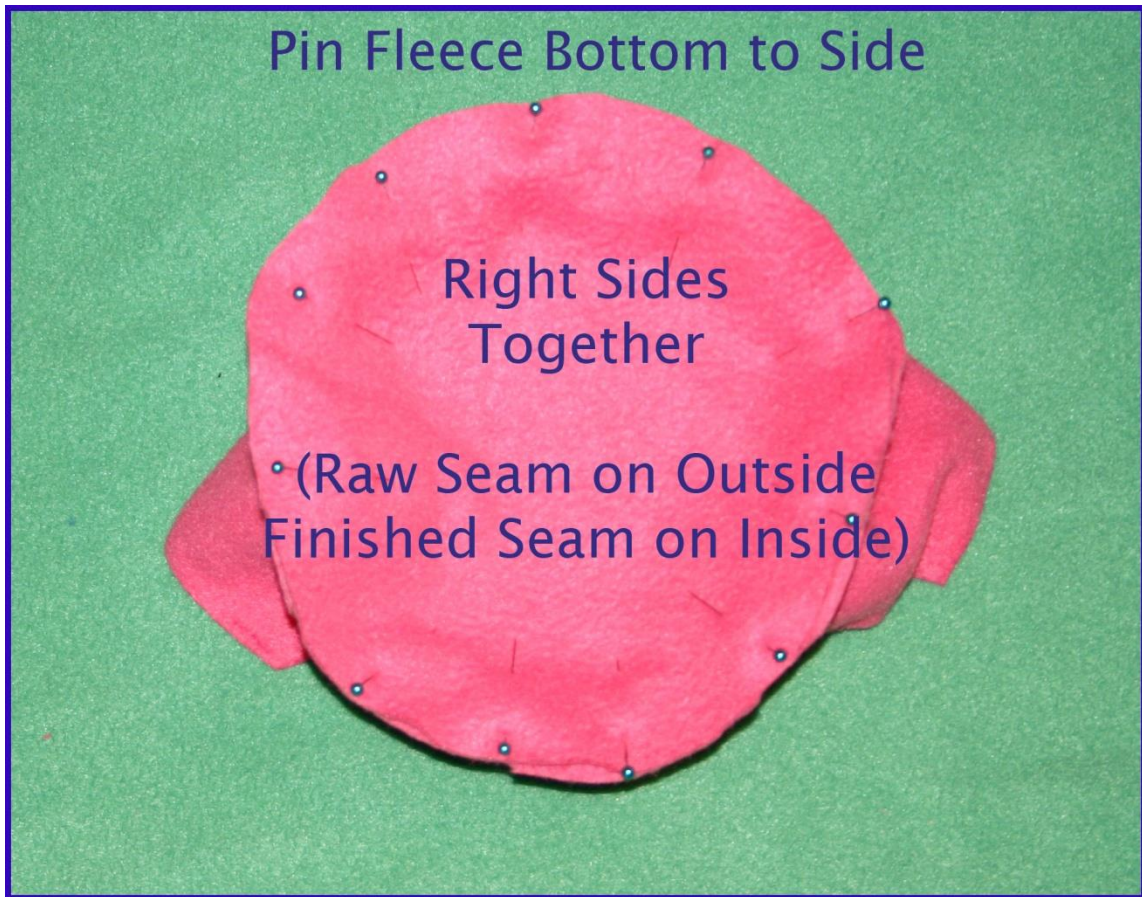Pin and Sew →

Trim Seam Allowance

8. **Pin** the bottom circle of the cotton/batting piece to the bottom edge (long straight edge) of the side piece, **cotton right sides together**.

9. **Sew** along the pinned edge.

Pin the Bottom to the Sides

Pin and Sew
around edge of circle

Batting Side Out
Cotton Right Sides
Together

10. **Trim** seam allowances and thread ends.

Trim Seam Allowances
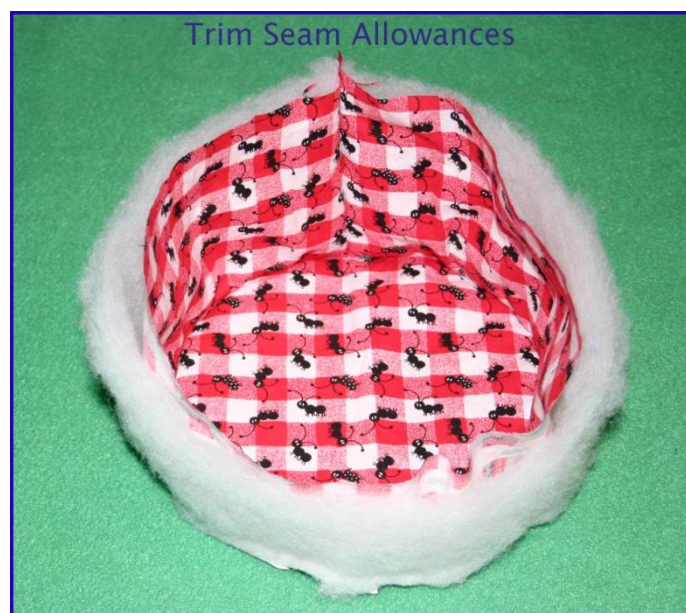
11. **Repeat Steps 8, 9, and 10** for the Fleece pieces.

Pin Fleece Bottom to Side

Right Sides Together

(Raw Seam on Outside Finished Seam on Inside)

Trim Seam Allowances

12. Turn the cotton/batting piece **right-side out.** Leave the fleece piece **inside-out.**

13. **Insert** the cotton/batting piece **inside** the fleece piece, **right sides together.**
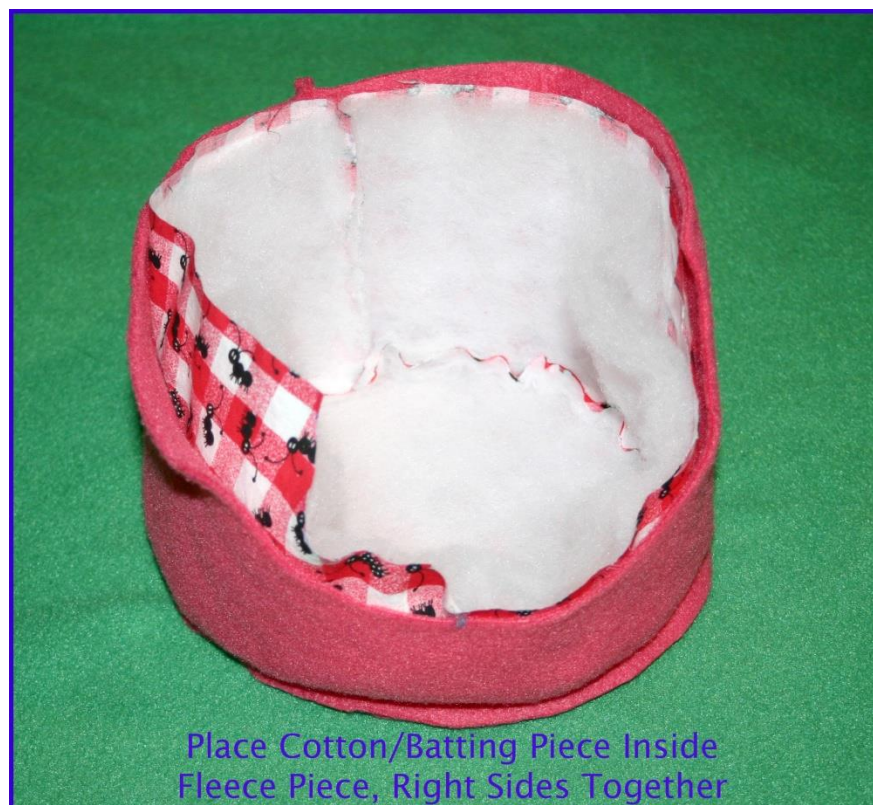
14. **Pin** along the top edge of the cuddle cup.
15. **Sew** along the top edge of the cuddle cup, leaving a small opening to turn the cuddle cup right-side out.


Pin and Sew Around the Top Edge

Leave a Small Opening to Turn the Cuddle Cup Right-side Out

16. **Trim** the seam allowances and the thread ends.
17. Turn the cuddle cup **right-side out.**

Turn Cuddle Cup Right-side Out

18. **Slip-stitch** the opening closed.

Slip Stitch the Opening Closed

19. **Top-stitch** around the sides and in the seat to hold the batting in place and keep it from bunching when the cuddle cup is washed. You can do as much or as little top-stitching as you like.

Top Stitch

Top Stitch to Secure Batting In Place
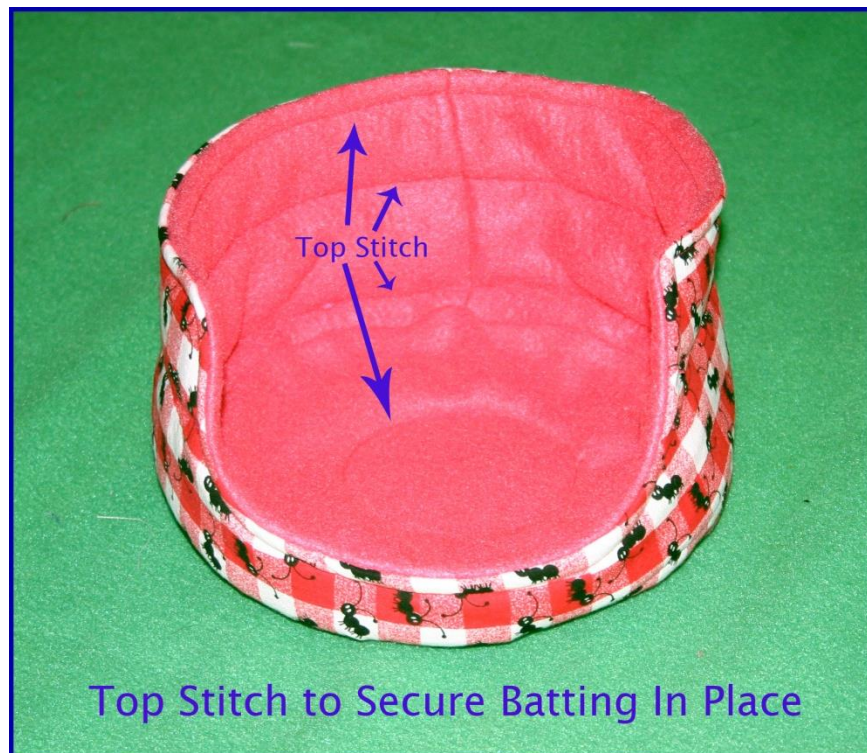
20. Your cuddle cup is complete. If you like, you can add grommets to the sides if you would like to clip the cuddle cup to the cage sides to prevent the rats from turning it over or stomping on the sides.

Bonding Pouch

Materials

Cotton or Flannel

- 12" x 14" rectangular piece
- 12" x 10" rectangular piece

Fleece

- 12" x 14" rectangular piece
- 12" x 10" rectangular piece

Extras

- Thread (match to fleece)
- Ribbon for Strap (3 to 4 feet)

Finished Size

- About 11" wide and 9" tall when flap is closed. 3 ½" flap.

Description

The bonding pouch is useful for carrying your rats around with you and for bonding with new rats if they are timid and still afraid of you. Note that not all rats will take to a bonding pouch, but the more timid ones will find it a comforting place to hide while you are holding them.
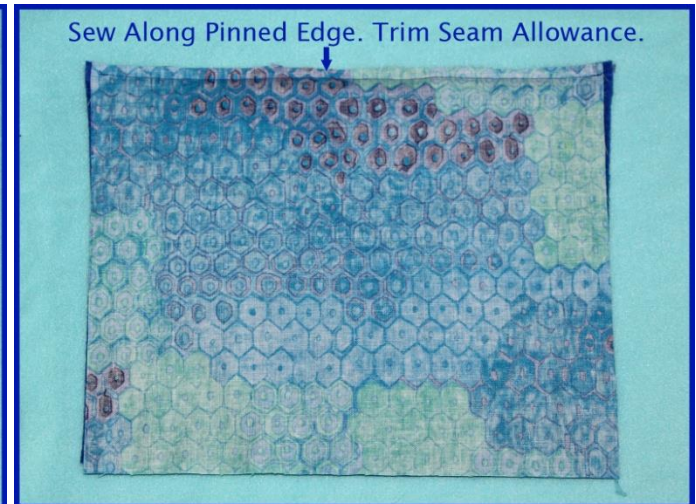
The original design I learned from was a completely seamless design, but required slip-stitching of an entire side. Because I am not a fan of extensive slip-stitching, I created my own variation on the design that is seamless except for the seam at the very bottom of the bag, similar to the snuggle sack.

Instructions

1. **Cut** out your fabric.
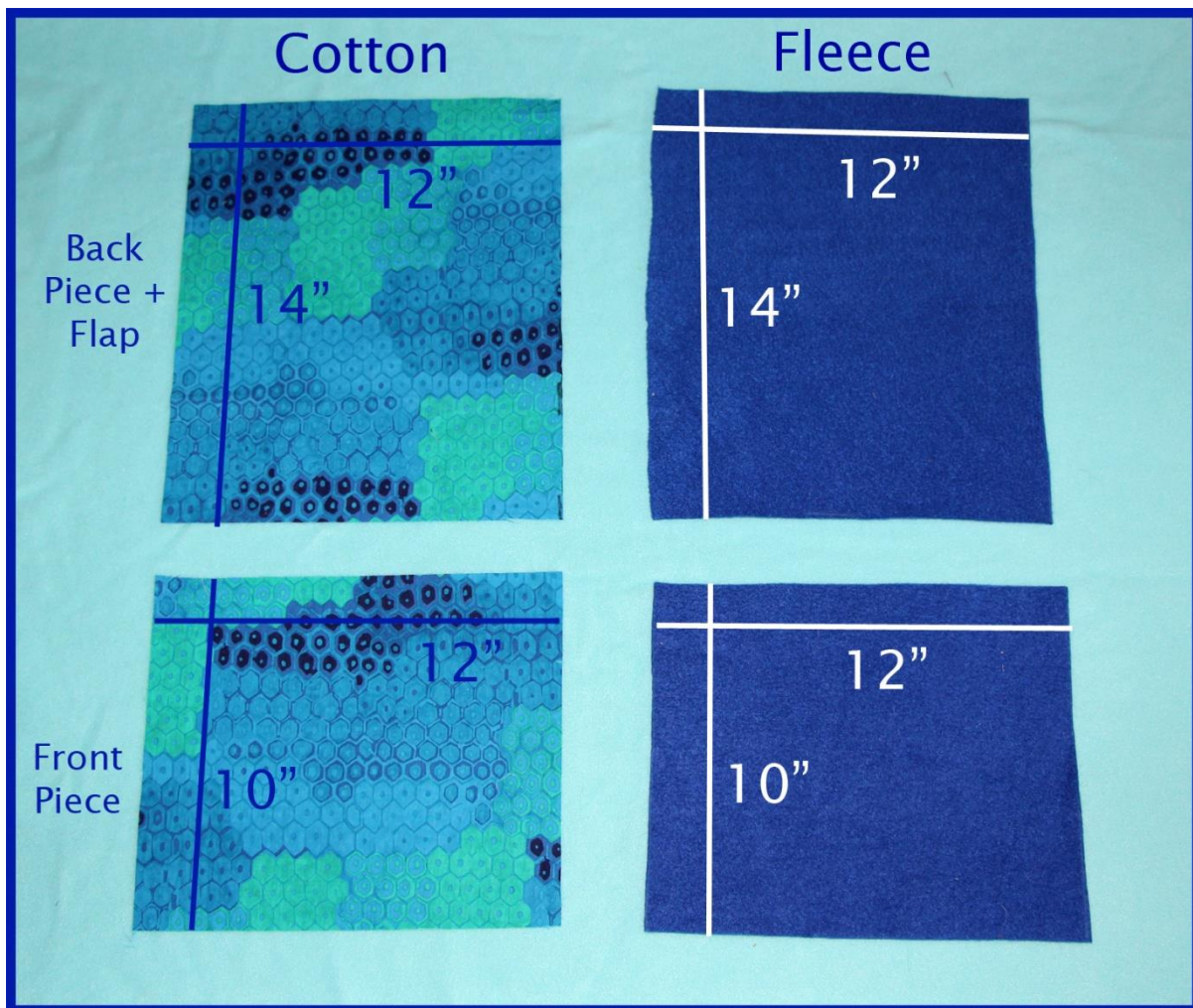
2. **Place** the Front (Smaller) Cotton Piece over the Front (Smaller) Fleece Piece, **right sides together**.
3. **Pin** along one long edge (this will be the top of the front section).
4. **Sew** along the pinned edge only (1 long side).
5. **Trim** the seam allowance.

Pin Along One Long Edge

Place Cotton Front (Small) Piece
On Fleece Front (Small Piece)

Sew Along Pinned Edge. Trim Seam Allowance.

6. **Flip** the cotton piece to the other side of the fleece piece so the **Right Sides Face Out.**
7. **Pin** and **Top Stitch** across the finished edge.

Flip Fabric Over So the Right Side is Out
Pin Along Finished Seam

Top Stitch Finished Edge
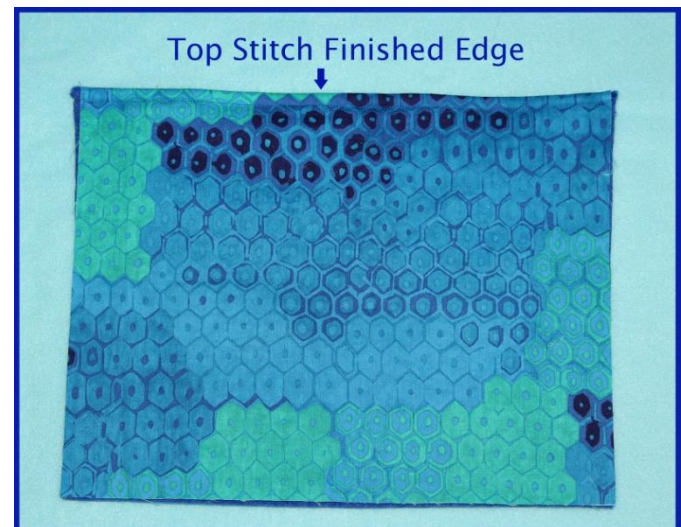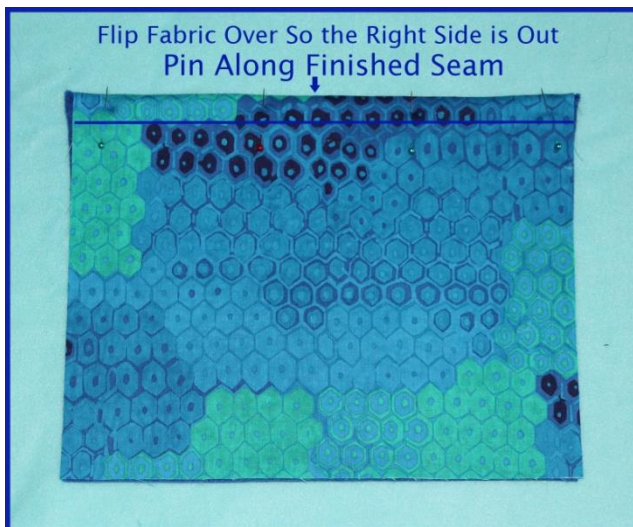
8. **Cut Ribbon** to the desired length.

I found for me, 46" hangs so that the opening of the pouch is about at my waist. 42" hangs a comfortable distance above the waist. You should cut your ribbon so that the bag will hang at a comfortable height for you.

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9. **Pin** the ribbon ends to the **cotton side of the front piece** at each end near the finished edge as shown. Make sure that when the ribbon is straightened out there are no extra twists in the ribbon or the strap will end up twisted.
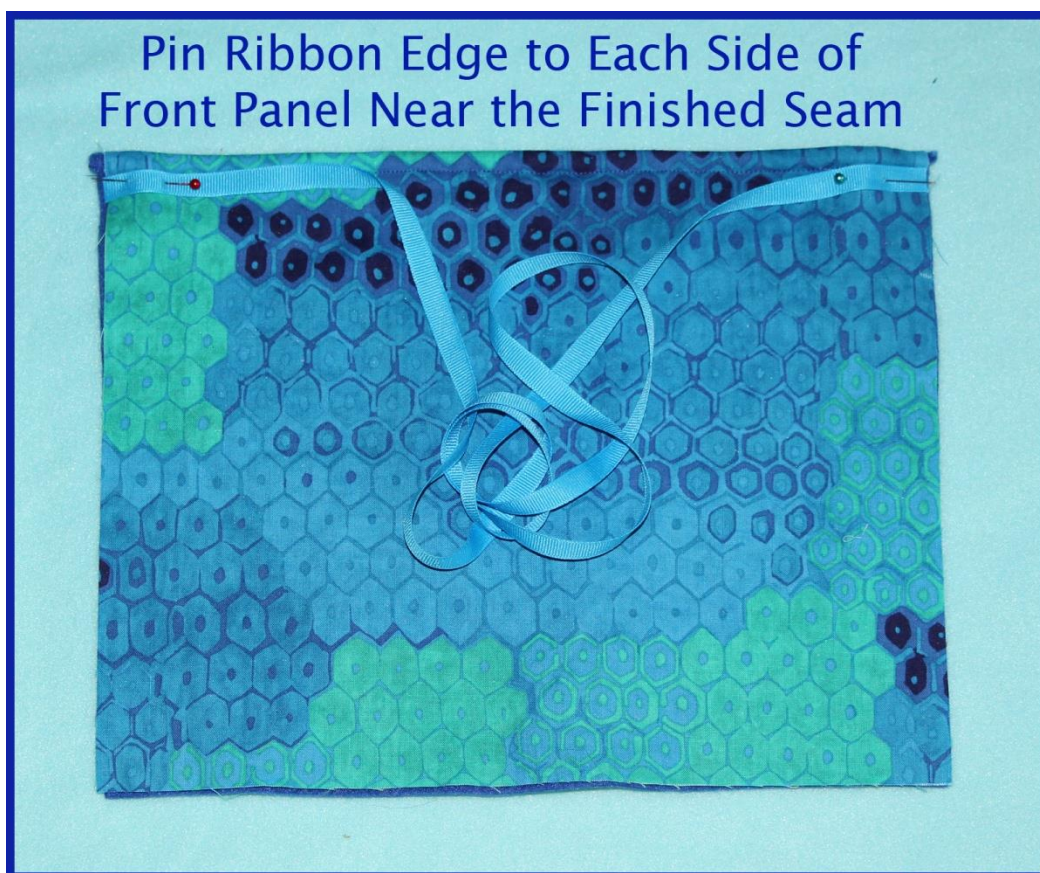
10. **Place** the top panel over the back cotton panel, **right cotton sides together,** aligning the bottom raw edge of the top panel with the bottom of the back panel.

11. **Place** the back fleece panel on top of the other two panels**, fleece right sides together.**
12. **Pin** around all sides **except the bottom** (short side with four layers of fabric).
13. **Sew** around pinned edge.
14. **Trim** seam allowances.
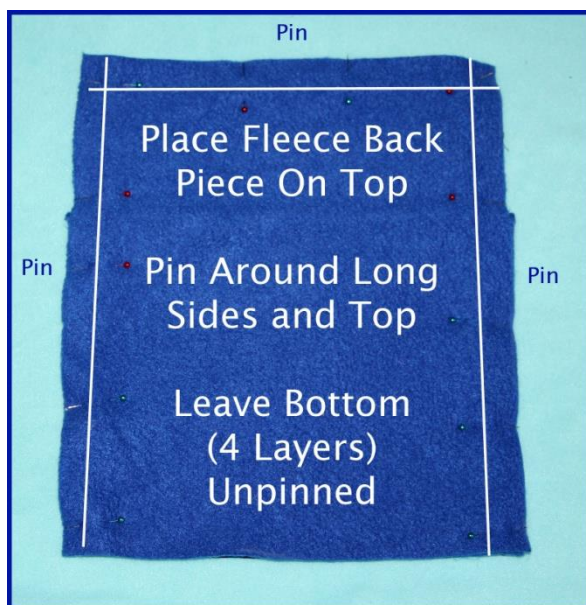
15. **Open** the pouch, **separating the two layers of fleece.**
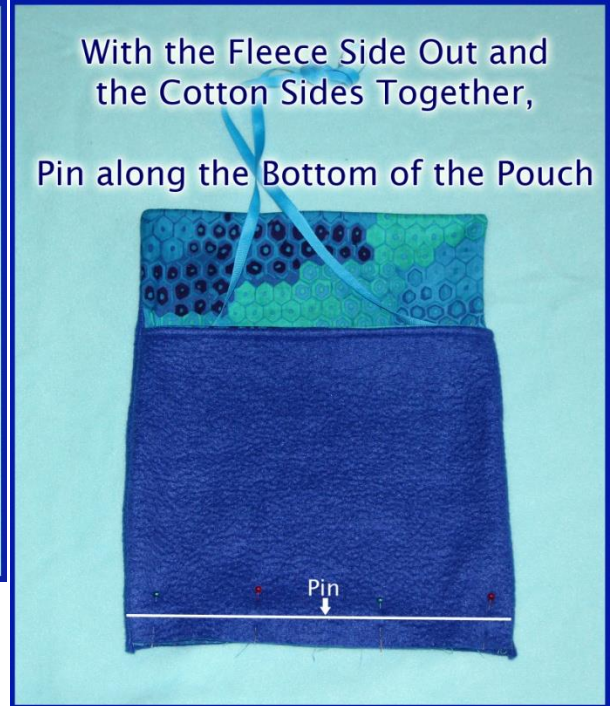16. **Turn inside out** through this opening so fleece sides are out and cotton sides are together.
17. **Pin** along raw bottom edge.

Open Pouch Between the Fleece Layers
and Turn Inside Out

With the Fleece Side Out and
the Cotton Sides Together,

Pin along the Bottom of the Pouch

Pin

18. **Sew** along pinned edge.
19. **Trim** seam allowance.
20. **Top stitch** along the top flap of the pouch.

Top Stitch Along Top Edge

Sew Along Bottom Edge and
Trim Seam Allowance

21. **Turn** entire bag right side out.
22. **Fold** top flap down.

Turn Pouch Right-Side Out

Fold Top Flap Down
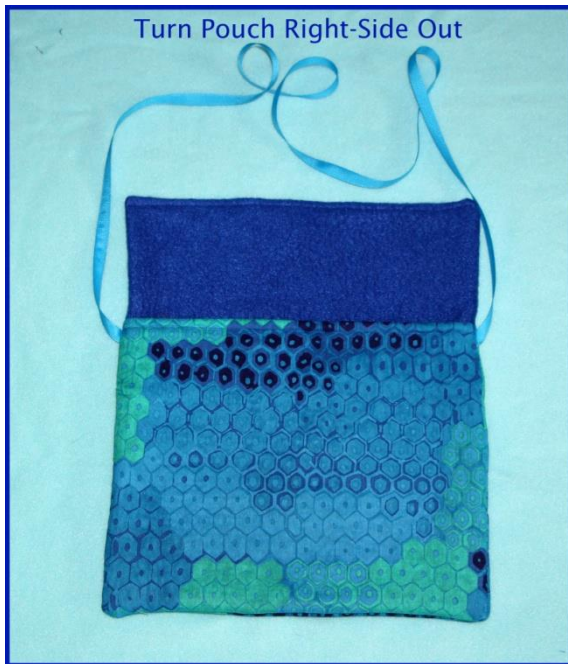
23. **Insert Rats and Bond!**

Bonding Pouch

Cage Liners

Materials

Fleece

- One layer (see "Sizing" for size information)

U-Haul Furniture Pad

- One layer (see "Sizing" for size information)

Extras

- Thread (match to fleece)

Options

- Add another layer of fleece (or cotton/flannel) to the bottom of the liner to hide the furniture pad layer). You can use a different colored fleece to make the liner "reversible" if it is a symmetrical liner (same shape when flipped over).
- Add another layer of furniture pad for more absorbency (be sure your sewing machine can handle such a thick project first).
- Quilt the liner by top-stitching a grid pattern if your rats try to burrow between the layers.
- Use this concept to create pads for carriers, huts, baskets, etc.
- Use this concept to create a small decorative mat for the cage (eg, heart-shaped for Valentine's Day)

Description

These liners, made with a top layer of fleece to wick away moisture and a bottom layer of U-Haul furniture pad (http://www.uhaul.com/MovingSupplies/Protective-stuff/Furniture-Pad, available from any U-Haul store or online), work well for absorbing odors and are easy to clean. My current rats are less likely to chew these liners than they are to chew fleece liners with towels underneath, but all rats are different, so your mileage may vary.

Use with Critter Nation Cages

These liners can be set inside the pans of the Critter Nation or clipped to the pans with large binder clips (2" width, 1 1/16" capacity).

Use with Martin's Cages

For the Martin's cages, I make the bottom liner slightly longer than the tray, so the cage sits on top of it and holds it in place. The shelf liners can be clipped in place with a large binder clip. The top level liner does not need to be attached as the surrounding cage walls hold it in place. If desired, a large binder clip can be used at the ramp opening to hold it in place. Or grommets can be inserted in the corners, then a split ring can be threaded through each grommet, and a lanyard hook can be inserted into each split ring. The liner can then be clipped to the cage wall.

Sizing

I use the following measurements for cutting fabric for liners for the Dual Critter Nation and the Martin's R-695 and the Martins Rat Play Pen with Pan. It is possible that the Martin's R-695 dimensions will also work for other Martin's cages that have the same footprint as the R-695 (R680, R685, R-699), as long as the ramp opening (if there is one) is in the same place. I don't have other Martin's cages to verify this.

Critter Nation

13.5"

5.5"

9.5"

Right Side Up

29"   34.5"

23"

Critter Nation Top Level

23"

34.5"

Critter Nation Bottom Level

16.5"

22.5"

Critter Nation Shelf

16.5"

22.5"

Critter Nation Shelf

Martin's R-695

19"

Right Side Up

14"

5"

31"

9"

5"

8"

19"

Martins R-695 Top Level

20"

35"

Martin's R695 Bottom Level

11"

19"
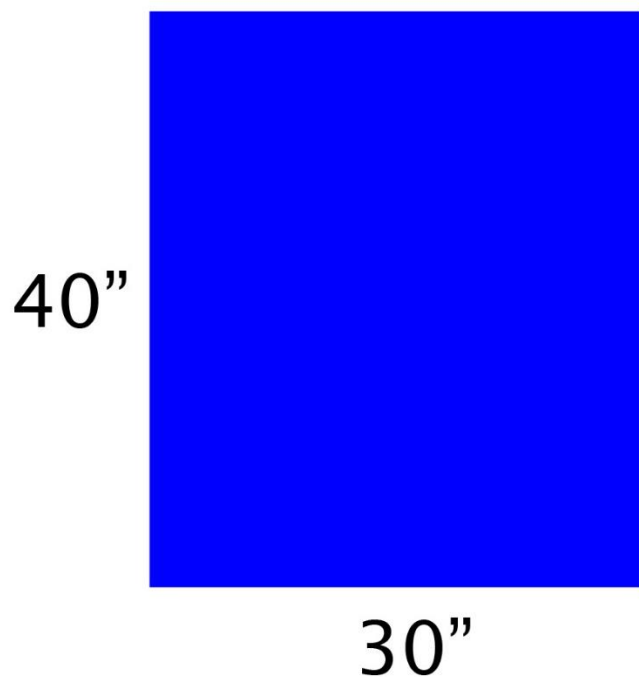
Martins R-695 Shelf

11"

19"

Martins R-695 Shelf

Martin's Rat Play Pen with Pan

40"

30"
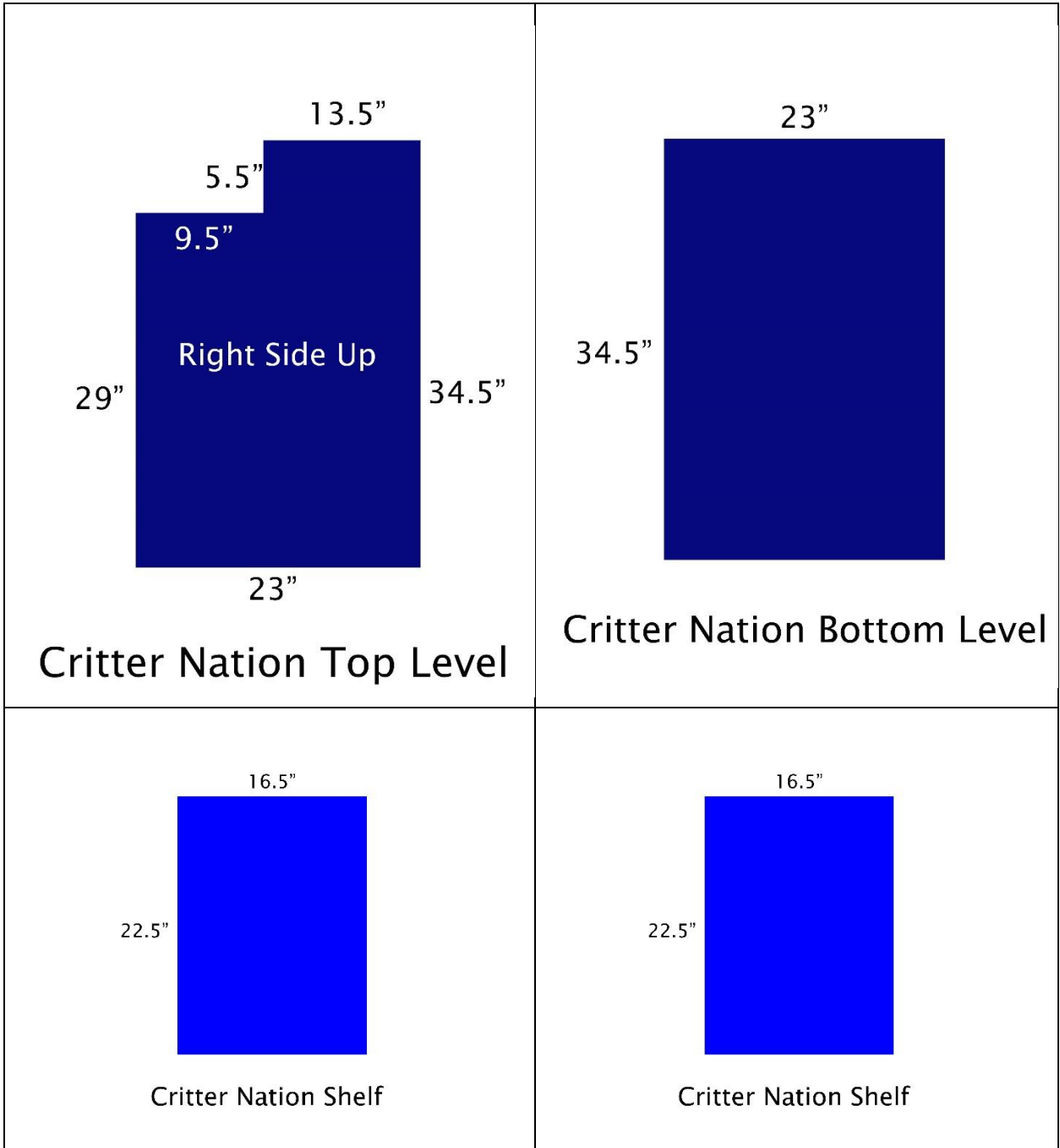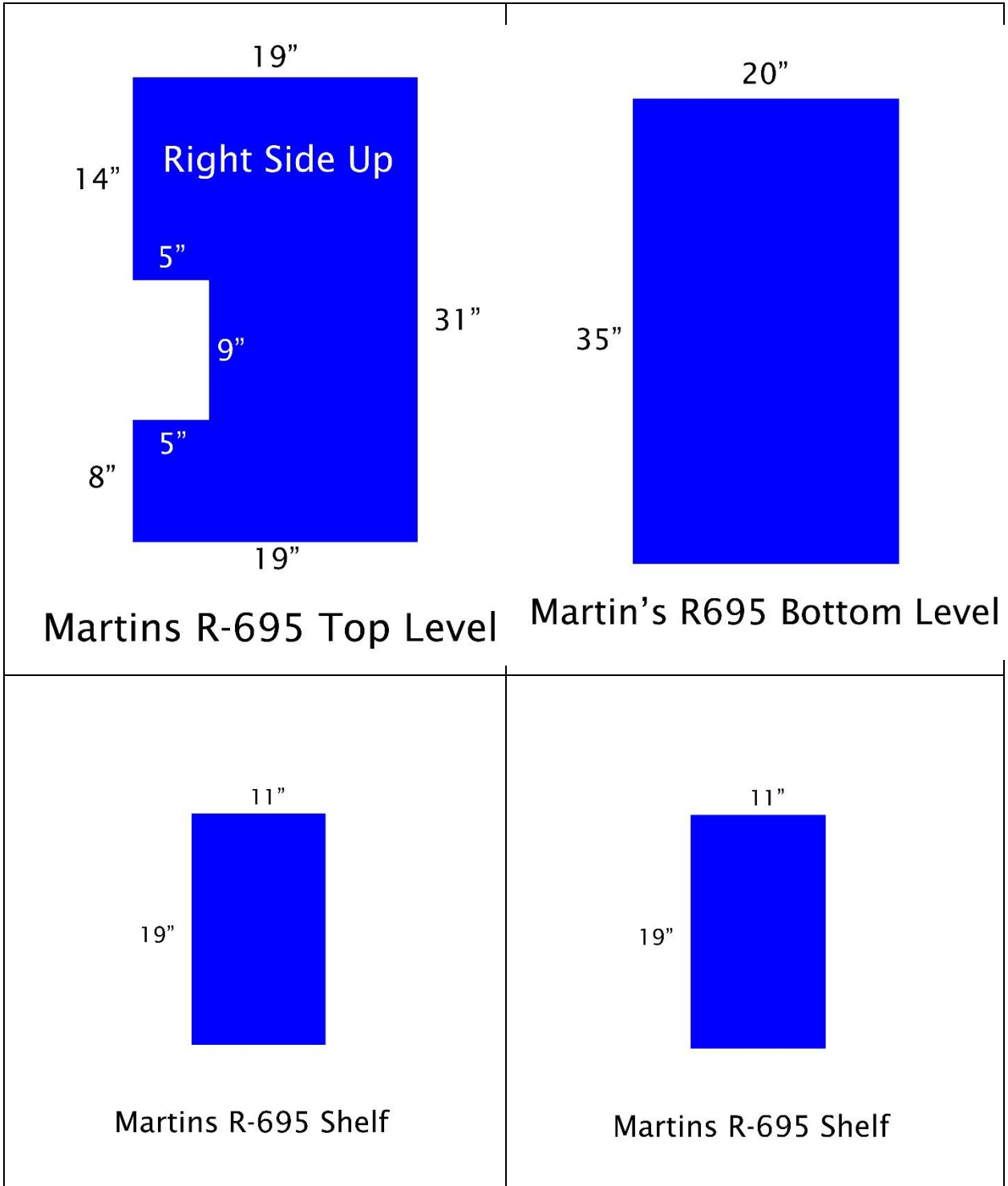
Martin's Rat
Play Pen with Pan

Instructions

1. **Cut Your Fabric.** Cut one piece of fleece and one piece of U-Haul furniture pad to the dimensions shown above (it is helpful to make templates out of muslin or scrap fabric so you do not have to measure each time you make a new liner).

Fleece
Right Side Up

Furniture Pad

Cut One Layer of Fleece and
One Layer of Furniture Pad to Correct Size

NOTE: If your liner has a notch cut out for a ramp, make sure to cut the fleece with the right side up as shown in the "Sizing" section. When the right side of the fleece is up, your fabric piece should match the shape of the level. The Furniture Pad does not have a right/wrong side.

2. **Pin** the fleece to the furniture pad, right sides together. (The shape of the pad when pinned this way should be a reverse (mirror) image of the layout of the level – don't worry, when turned right side out, it will be correct).

Pin Fleece to Furniture Pad
Right Sides Together

Note: this shape is a
mirrored (flipped) image
of the level shape

3. **Sew** along the edges of the pad with a ½" seam allowance, leaving a 4-5" opening to turn the pad right side out.
4. **Trim** the seam allowance and excess thread

NOTE: I like to position the opening so that it will be along the back edge of the cage and less visible – often in a spot where the litter box will be covering it up.

5. Turn the liner **right side out** through the opening.

6. **Sew** the opening closed, either slip-stitching by hand or machine stitching close to the edge.
7. **Top Stitch** around the edge.

Top Stitch
Around All Sides

8. **(Optional) Quilt** by top stitching in a grid pattern across the liner. (Only necessary if your rats try to burrow between the furniture pad and the fleece, which mine do not do).

9. **Place in Cage**. Use large binder clips to hold in place if necessary. Martin's bottom liners are designed a little long to allow the cage to sit on top of the liner and hold in place.

Critter Nation

Martin's R-695

Martin's Rat Play Pen with Pan