

Design, Build and Upholster a Custom Chair

Sometimes the perfect furniture piece to complete a room may not exist. In this case, why not design, build and upholster to your own specifications, completing any space with a one-of-a-kind furniture piece that fits the design style.



Design, Build and Upholster a Custom Chair: Step-By-Step Instructions

While our chair is quite large, by following the instructions for planning and building, you can create to fit your specific needs. We covered our chair in a faux rabbit fur and used long acrylic legs for a one-of-a-kind custom chair. This how-to guide will take you through the steps to plan, build and upholster the chair.

Remember, this project used faux fur so we were able to top staple most areas. If you are using a regular upholstery fabric, you will need to secure and close areas using different methods that hide the staples.

Materials & Supplies

Rowley Products

- Pattern Making Paper
- FirmaFlex™ Bendable Fiber Board
- Cornice Board Padding
- Polyester Batting
- Spray Adhesive
- Curved Needles
- A&E Upholstery Thread
- Utility Scissors / Shears
- R-TEC Upholstery Air Stapler
- 71 Series Staples - 3/8"
- 71 Series Staples - 1/2"
- Cardboard Tack Strip - 1/2"
- Shutter Hanging Brackets
- Mending Plate

SKU

- [DYC18/](#)
- [BP48/72Z](#)
- [PA27/36](#)
- [PF76](#)
- [AS30](#)
- [TP75](#)
- [TU6K/](#)
- [CU8/U](#)
- [NSG10](#)
- [NS33/E](#)
- [NS34/E](#)
- [CS50](#)
- [AG9](#)
- [MP30](#)

Other Materials Used:

- 1" x 3" Wood
- Drill
- Wood Screws - Multiple Lengths
- Plywood - 1/2"

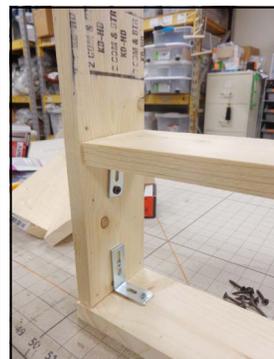
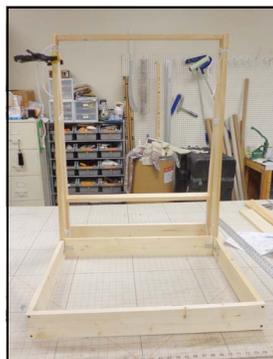
Planning the Chair:

- 1 To begin planning your chair you need to start with your finished width, depth and height, then break it down into a more detailed level.
 - Be sure to back out your leg height from the overall height.
 - Be sure to leave height on the Inside Back (IB) for your cushion.
 - Decide how deep your cushion will finish.
 - Decide on what type / depth of padding you will be using. Foam takes up more room than layers of batting.

Note: There are more things to think about, but the above list will get you started.
- 2 Once you have your overall measurements, think about what kind of frame you will be building. We used 1" x 3" wood with a FirmaFlex™ surround, so we needed to back off our finished frame dimensions by ½" wherever FirmaFlex™ was being added to the frame. As an example, our seat finished 30" W x 24" D, so our wood frame had to finish 29" W x 23" D. We also added 16" long legs, but the legs sat inside the frame by 4" so only 12" was used for the overall finished height measurements.
- 3 You also need to think about what size wood you are using (1" x 3", 1" x 4", etc.). These wood pieces are actually ¾" deep and not a full inch. This will come into play when you are building the frame as one piece needs to sit inside of the other – you will need to subtract that ¾" from the cut length.
- 4 This how-to guide will not have specific measurements, but will cover the steps to build the chair once you decide on your measurements, frame material and padding.

Building the Chair:

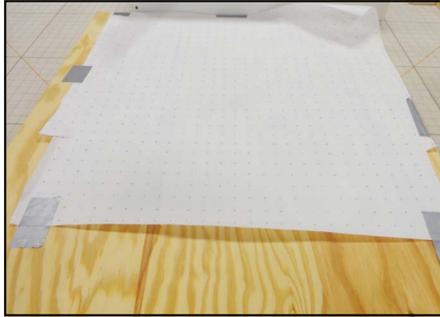
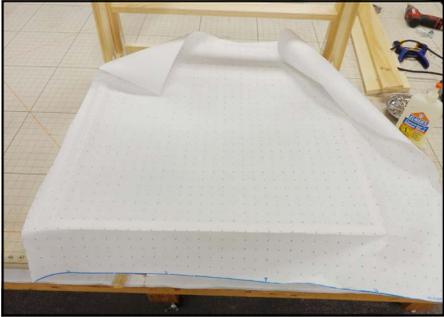
- 1 Cut the wood frame pieces needed.
- 2 Align them so you can double-check math and the build requirements.
- 3 Pre-drill all join holes, then join wood pieces with wood screws.
- 4 Add any additional support pieces to end up with a sturdy frame.
 - A. Screw in angle irons and / or flat mending plates as needed to support the joints.
- 5 Once the frame is built, recheck for finished measurements and make any needed adjustments.



6 Make a paper pattern for the seat wood (plywood).

7 Cut out and attach seat plywood to frame.

A. This piece needs to cover the seat **AND** run through to the back of the frame.



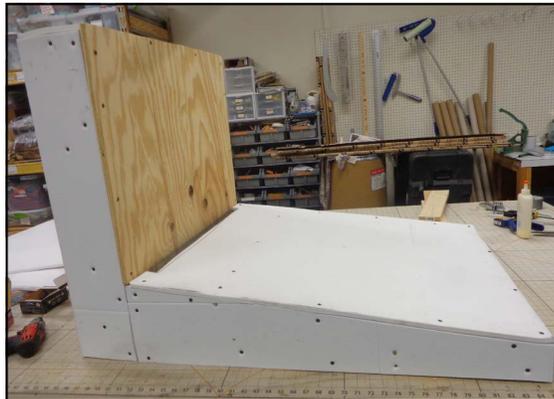
Adding the FirmaFlex™:

1 Cut pieces of FirmaFlex™ as needed to cover the frame.

A. This is the area you will be securing your fabric to and will make the final height, depth and width measurements once applied

2 Screw pieces to the frame.

3 Be sure to leave a “pull” area on the Inside back where it meets the Seat.



Padding the Chair:

1 Lay a layer of Cornice Board Padding over the wood seat.

2 Wrap the entire seat area, including sides, with a layer of batting.

3 Remove excess batting in the corners.

4 Spray-glue the batting or lightly staple in place.

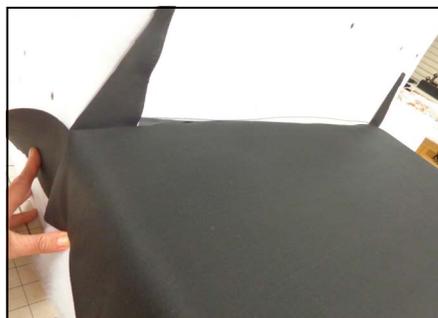


Completing the Decking / Nosing:

1 Cut a piece of decking large enough to cover the entire seat area.

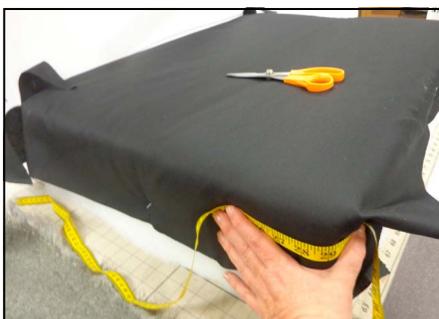
2 Cut away for pull areas so the decking lies flat.

3 Lightly tack it in place.



4 Measure the area for the Nosing material – what will be covered and how far up onto the Nosing will it be placed?

5 Cut Nosing pieces (join them if you are not using fur).



6 Pin Nosing material to Decking, ignoring the corners for now.

A. We chose to cover 4" of Nosing on three sides of the seat for this project.

7 Remove Decking / Nosing from padded frame.



- 8 At the machine, sew Nosing to Decking.
- 9 At the corners, align Nosing material so right sides are together and edges are even.
- 10 Measure over the distance you choose (ours is 4") on the cut edge and on the fold edge. Mark.
- 11 Sew on the line that connects the two measurements. This is your mitered corner seam.
- 12 Open the join seam and trim away any excess seam allowance in the corners.



- 13 Pull the Nosing / Decking onto the frame.
- 14 Lift the Nosing fabric out of the way and pull and staple the Decking material to the frame.
 - A. Be sure to fold in and staple the corners.
- 15 Pull the Nosing fabric down and staple to frame.



Completing the Inside Back (IB):

- 1 Pad out the IB.
 - A. Be sure no padding wraps to the back (Outside Back).
 - B. Staple padding sparingly.



- 2 Center fabric on IB, aligning patterns if needed.
- 3 Turn under the bottom, turning under enough to pull through to the back for stapling.
- 4 Make relief cuts to get around the “legs” of the IB.



- 5 Pull fabric to back – through frame and staple on top of frame.
- 6 Pull fabric up and over top. Staple to back of frame.
- 7 On the sides, wrap to cover the entire sides.

- 8 Trim as needed and staple to secure.



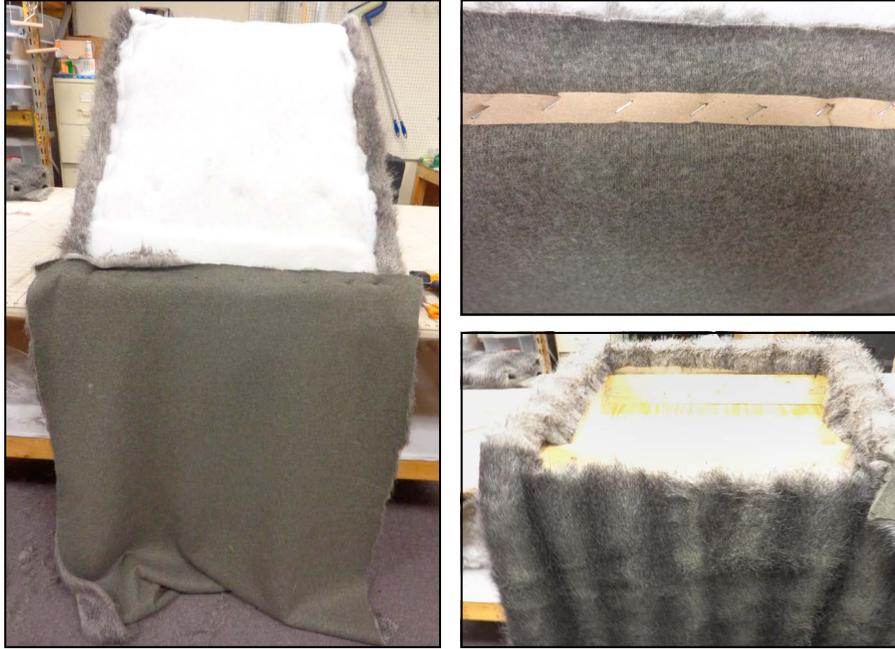
Completing the Outside Back (OB):

- 1 Close the hole of the OB with a layer of burlap, stretched tight and stapled to the frame, well inside the outer edges.
- 2 Fold over excess and staple again for added strength.



- 3 Position OB fabric face down so it is laying in your lap and just a few inches in on the back of the chair.
- 4 Staple to keep the alignment from shifting.

- 5 Staple a row of cardboard tack strip tight against the outer frame to secure a straight line.



- 6 Flip the fabric up to cover the back, then pull fabric down under chair and staple.

- 7 Trim excess off sides and turn under.

- 8 Top staple.



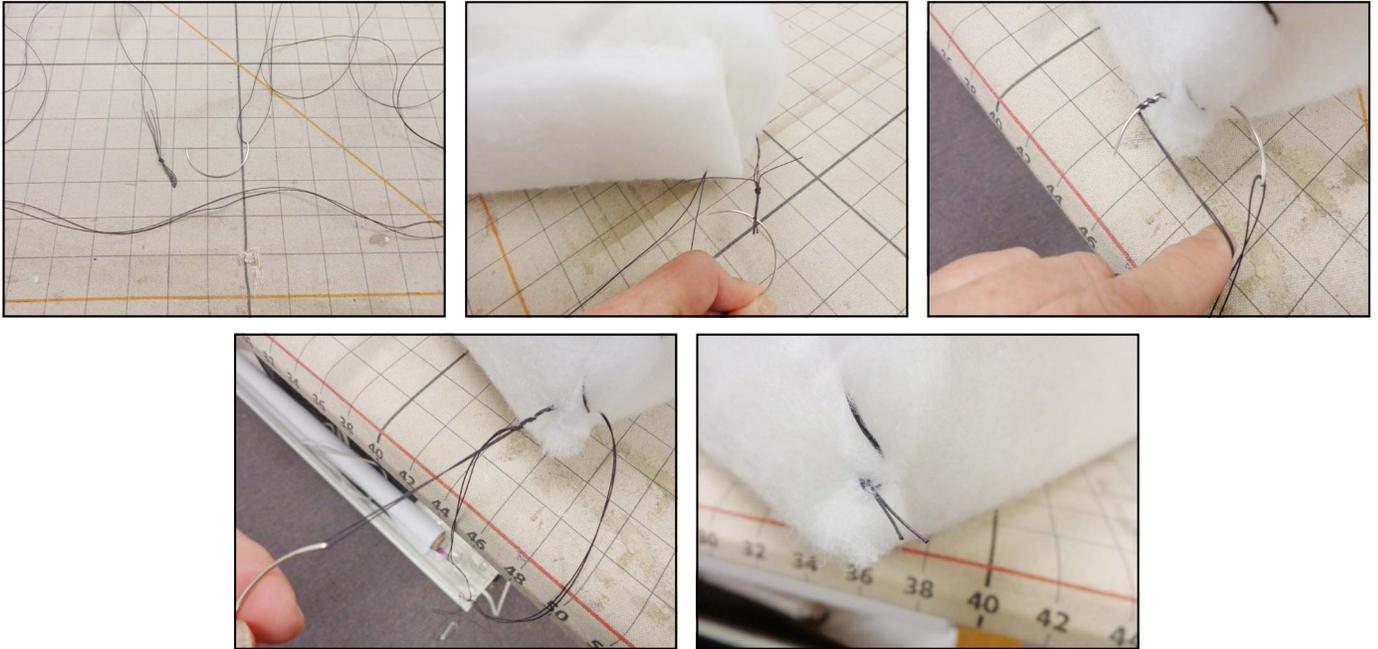
Cutting and Prepping the Cushion Foam:

- 1 Cut foam to size needed for your project.

- 2 Wrap the entire piece of foam in a layer of batting.



- 3 Cut away excess in corners and close using a curved needle and upholstery thread.



Making the Cushion:

NOTE: This cushion does not have a zipper. If you want a zipper in your project, you will need to plan the Boxing accordingly and insert the zipper prior to sewing the Boxing to the Cushion top.

- 1 Cut Cushion top and bottom to size, plus seam allowances.

- 2 Cut Boxing, plus seam allowances.



- 3 Sew Boxing pieces together to make a long strip.

- 4 Sew Boxing to Cushion top, aligning and matching corners.



5 Sew Boxing to Cushion Bottom, aligning corners and leaving an opening for turning / stuffing.

6 Turn right side out.

7 Stuff and hand close.



Adding the Legs – Finishing the Chair:

1 Align and screw on legs.

2 Add cushion to chair.

3 Give the chair a good steaming (or combing!) prior to delivery.

