

UPHOLSTERY HANDBOOK FOR BEGINNERS



REVIVE
UPHOLSTERY

TIPS | TRICKS | GUIDE



DISCLAIMER

This upholstery guide is designed for beginners and hobbyists who want to explore upholstery at their own pace and for personal enjoyment.

The information in this guide is shared for **general educational purposes only**. Upholstery involves tools, materials, and techniques that may cause injury or damage if used incorrectly. Please work carefully, use appropriate safety equipment, and apply sound judgement throughout the process.

This guide is not intended to replace professional training or trade advice. By using this guide, you acknowledge that you are responsible for your own safety, outcomes, and results.



WELCOME

This guide is your intro into the wonderful world of upholstery! With nearly 9 years of experience, I (Gabby) have formulated this beginners guide to assist you in your journey into upholstery. My goal is to give you a taste of what is involved before you embark on your own upholstery projects. This guide is for anyone starting their journey and is dedicated to all my clients over the years who said they wish they had learnt this trade!

My background

I have always loved creating and making things with my hands. I completed a Textile Design degree before unexpectedly but gratefully coming across the upholstery trade. I completed an apprenticeship and have picked up many other skills along the way. The combination of my degree and trade have enhanced my understanding of both fields, espieccally when it comes to fabric selection, colour choices and practical skills.

Gabby x



INTRODUCTION

I have simplified the process of transforming your favourite piece of furniture using a simple 5 stage framework with each stage starting with the letter 'F'.

Please note that this guide does not offer in depth technical guidance but offers an insight into some of the processes involved in re-upholstering furniture. It barely touches the tip of the iceberg as this trade, as like any trade, requires dedicated learning, however, the purpose is simply to help you better understand what this trade entails so you can be better prepared to commence such an endeavour.

Another purpose is to help you understand that upholstery isn't all glitz and glamour but requires a lot of patience and preparation before any fabric is applied to the furniture. I do believe that the better prepared you are the more enjoyable it will be. Diving head first into any upholstery project can be a bit daunting (even for me) so I hope this helps to break down the steps so it is less overwhelming.

Also understand that I received 1 on 1 training while learning on the job and I recognise formal training may not be feasible for many people, therefore, I have condensed my years of quality/formal training to formulate this guide with the purpose of helping you get one step closer to learning upholstery.

F

- FURNITURE
- FRAME
- FOUNDATION
- FABRIC
- FINISHINGS





CHAPTER 1: FURNITURE

Understand where to source your next project, if you haven't already, and identify suitable pieces.

CHAPTER 2: FRAME

Strip furniture and prepare frame including sanding, staining, polishing and repairs.

CHAPTER 3: FOUNDATION

Re-pad your furniture to provide a base before applying fabric. Use either contemporary or traditional techniques.

CHAPTER 4: FABRIC

Determine what fabric you would like to recover your furniture in before cutting and applying it to your project.

CHAPTER 5: FINISHINGS

The final step! Learn about the different types of finishings and how they are applied.



01

FURNITURE

So first things first: sourcing your project! The good news is that furniture is in an abundance. I find that the 'older furniture' with the best bones is either very cheap or free if you look in the right places. So cost and availability should not be an issue. More than likely you or someone you know already own something that needs re-upholstering.

With the right skills, time and budget a lot of furniture can be restored (I have worked on furniture that has come in pieces in a box!).

I would strongly recommend starting on a small project such as a dining chair or footstool just so you can practice the techniques before endeavouring on a larger project.





SOURCING YOUR PROJECT

- Your house
- Your garage
- Your family or friends garage
- Opportunity Shop
- 2nd hand furniture shop
- Market place
- Trademe/Ebay
- Antique shop
- Garage sale
- Side of the road!

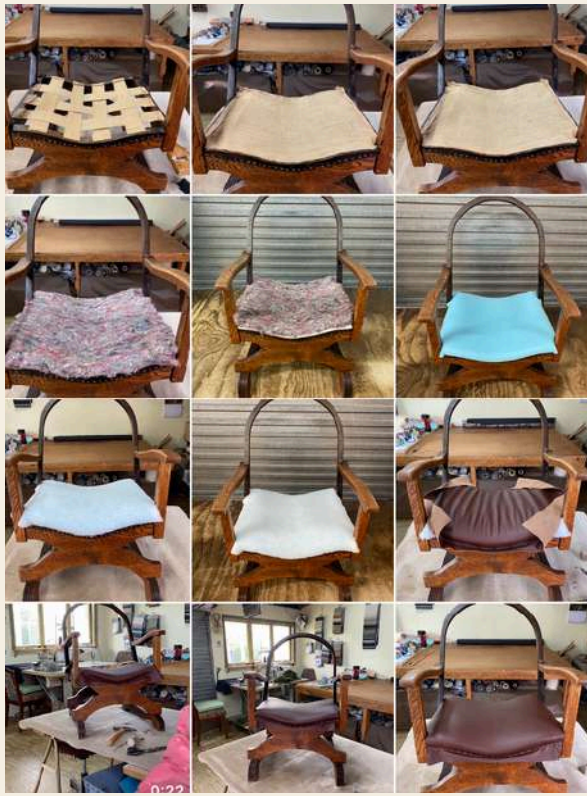


Roadside find!

IDENTIFY SUITABLE PROJECTS

- Ideally native timber.
- Solid frames.
- No borer
- Little to no structural damage
- Steer away from damaged frames. (Wobbly frames are okay and usually easily strengthened).
- I wouldn't recommend very modern, mass produced furniture as it won't last as long as older styles.
- Knowing someone or having woodworking skills, opens up your options open up as you can repair frames.





DOCUMENT THE PROCESS

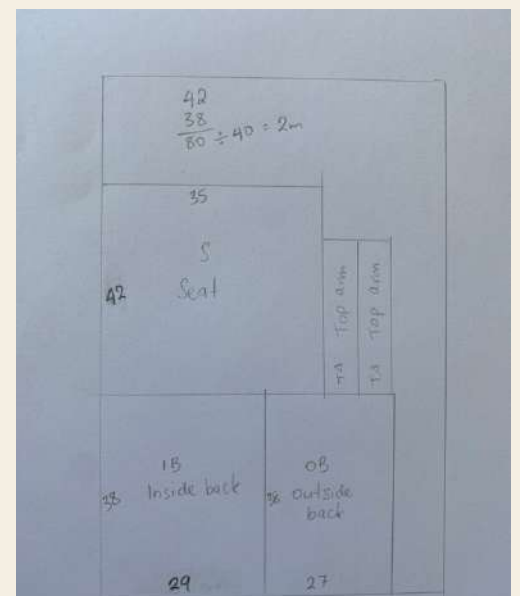
Once you have identified and purchased the piece you wish to recover I would recommend taking "before" photos to see the transformation at the end! As you strip the furniture please continue taking photos and write down each step especially if you are starting out so you know how it goes back together. You will thank yourself later! Even long standing skilled upholsters may do this on more complex jobs.

FABRIC QUANTITIES

Note down each panel to help determine fabric quantities. This can vary from job to job. If you are starting with a small item like a dining chair or footstool 0.5m - 1m should suffice (1m is usually the minimum length if ordering from a major fabric supplier). Note minimums may vary online.

For larger jobs measure each panel using a soft tape and go an inch or two beyond. This will account for stapling and extra padding you may add. Do this from front to back then side to side on each panel and record front then sides like 42" x 35". I use inches, so decide beforehand which system you wish to use. Once you have recorded measurements, determine how much fabric you will need to order, keeping in mind that the average width is around 130-140cm wide.

Layout each panel in the most economical way. I would recommend drawing a diagram to help you work it out, usually starting with the larger panels. Calculate the amount you will need by adding up the total measurement of the panels on the vertical axis.



Layout plan. Note I converted inches to metres by dividing total by 40 as you usually order fabric by the metre.

TOOLS AND EQUIPMENT

Before we get too far ahead I think it would be very important to touch on a few of the basic tools and equipment usually required to carry out many upholstery jobs.



Above is a selection of some of the basic tools. From left to right: Tack hammer, staple remover, fabric scissors, regulator, pliers and soft tape measure, sharpie, staples and fabric chalk. Above is a 1m ruler.



Above is some basic PPE: safety glasses and ear muffs. It is also recommended to have covered in shoes and an apron.



Pneumatic staple gun - requires an air compressor to operate.



Industrial sewing machine. A heavy duty domestic sewing machine should do the trick when starting out!



Electric foam cutter- An electric bread knife may also work if just starting out.



Industrial overlocker. A domestic overlocker should also be okay when starting out as long as the fabric isn't too thick.

There are plenty more tools and equipment used in this trade this is only a snapshot of some of the basics. You can purchase them from your local upholsterer who should have a trade account with tool suppliers or have a look online!

CHAPTER 2

FRAME

Once you have sourced a suitable project to work on you will need to prepare the frame. The process starts by stripping old covers, padding and webbing, securing the frame before sanding and polishing. If your project does not have wood then all you will need to focus on is stripping the covers and the existing padding if you need to replace it.



STRIP FURNITURE

To strip the furniture you will need to use specific stripping tools to remove the covers and padding if it is to be replaced.

Place the end of the staple remover beside the staple and tap using the flat end of the hammer as it provides more surface area to hit the top of the staple remover. You may need to tap a few times to get them out. Once lifted you will most likely need to use pliers to remove them completely.

(Lift staples along an entire side or two before going along with the pliers to save time and reduce injury).

Be careful not to scratch the exposed part of the woodwork (if applicable) with removed staples by regularly tidying your space. Brush hands gently over the area where staples are removed to ensure there are no sharp bits in the wood and tap it down with the hammer so it is now flush with the wood. If there are any minor holes in the frame, patch up with some wood putty, or if small pieces chip off, glue it back on with wood glue.



Lifting staples with tack hammer and staple lifter, working away from my body



Removing staples completely using spring loaded pliers.

BONUS TIPS:

- **It is important to work away from your body and don't place your hand in front of the staple remover in action in case it slips. If tacks/staples are rusty I would recommend using safety glasses to protect your eyes.**
- **Be careful not to damage exposed woodwork. You can use a small piece of leather between the wood and tools for extra protection.**
- **And remember to photograph each step!**

PREPARING THE FRAME

- Next it is time to ensure the frame is sturdy. Use wood glue and clamps if needed and screws to secure wobbly joints. You may need to leave to dry overnight.
- Sand frame/legs/arms if applicable before applying desired stain/oil/wax according to the directions on the bottle. In the past I have found it best to use a tungsten scraper to remove paint/varnish on flat surfaces. You will need to use a paint stripper to remove paint/varnish on turned furniture frames.
- You can use a power sander or manually sand the frame. I would aim to use 2-4 varying grits of sand paper until a smooth finish is achieved. For rough or deeply stained surfaces I would start on a 80, otherwise a 120 grit should suffice. I would try finish with a 180 to a 220 grit in either case. Ensure all of the old finishes are removed for best results.
- I often use polyurethane spray to finish stained wood or to go directly onto the raw wood for a more natural look. Oil such as danish oil is great for touching up existing woodwork that does not require refinishing.

*Please note I am not an expert at woodwork but have acquired basic skills while learning the trade so these are very general and brief guidelines. So feel free to learn at your own pace or consult a professional/handyman if unsure.



SAFETY TIP:

When sanding, staining and varnishing please wear appropriate PPE such as gloves, glasses, dust mask and coveralls. Work in a well ventilated space.

SANDING



Using a tungsten scraper to remove a majority of the existing varnish/stain is very efficient on flat surfaces.

Smooth the wood surface with sand paper before applying stain and or varnish.



STAINING



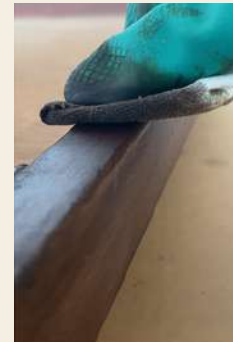
Follow instructions on label. I usually apply two coats of stain for a richer colour.



You can use a cloth or bits of old shirt in minimal, even strokes.



Can also apply stain using a flat brush for a smooth coat and uniform coverage.



May need to even out stain using a cloth immediately after applying with a brush.

VARNISH



Once stain has dried ensure surface is smooth and clean before applying a clear coat of varnish. I usually like to use a sateen (semi-gloss) polyurethane spray as it enhances the colour of the stain without being too reflective and shiny. Again, follow the instructions on the label. I have found that a couple of light coats at two separate intervals creates a nice finish. You certainly want to work in a well ventilated space with full PPE.

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CHAPTER 3

Foundation

Time to layer up! Next we want to ensure we have a solid foundation to work from. This will ensure that the rest of the job will come together better and give you a durable piece of furniture.

I would like to reiterate the varied and nuanced nature of upholstery, so this is a general guide applicable to a wide range of upholstered furniture.





A selection of foams in varying densities and thicknesses.

PADDING MATERIALS

Below is a list of materials usually used to create the padding in contemporary furniture:

- Zig-zag springs or elastic webbing
- Spring protector
- Foam
- Tetron

Foam comes in a wide range of thicknesses and densities and selection is very important when re-padding. Firmer densities are more suitable for seating whereas softer foam is more suited for back and arm panels.

For traditional upholstery which is used predominantly in antique furniture:

- Jute webbing
- Coil springs
- Flax/horse hair
- Hessian
- Wadding

Usually we would try to salvage the existing padding.



What you may expect to find inside of traditionally upholstered furniture.

WEBBING



Jute webbing being stretched using a wooden web stretcher, before being secured with a row of staples



Webbings secured from front to back, evenly spaced out. The ends are folded back over themselves and stapled again.



Side to side webbings are then inter-woven between the front to back webbings for extra durability.

ELASTIC WEBBING

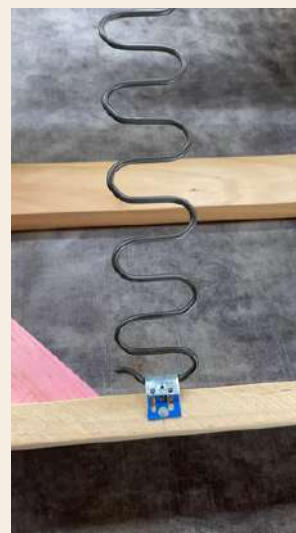
This process is also very similar to applying jute webbings but are predominantly used on more modern furniture and stretched using your hands.



You can also incorporate traditional and contemporary materials and techniques on a project!

ZIG ZAG SPRINGS

Zig-zag springs also used in modern furniture. Clipped into place once they have been cut to size.



There are some other springing systems, but these are some of the more common ones I have used and seen.

SPRING PROTECTOR



Spring protector is then added. We have used a layer of hessian which is common for traditional upholstery. Can also be a thin layer of felted fibres often used in modern upholstery

WADDING



This layer of wadding can also be applied before foam or other padding is applied. We reused the previous layer of wadding. For modern furniture you can also use a thin layer of foam. This adds shape and creates a firmer seat.

FOAM



Foam is then stapled on top. This provides the main basis of the seat. This would have been pre-cut to size using the foam cutter. Some excess may need to be cut away.

TETRON



Tetron is the final layer of the padding which is usually stapled on top of the foam. This is a thin layer of soft felted fibres (usually synthetic) that gives the padding a softer finish. Now ready for covers!

TRADITIONAL SPRINGING

A quick sneak peek at what goes into traditional re-springing!



Before any of the webbing, springs and padding is applied.



Jute webbings and coil springs attached. Coil springs are usually used in traditional upholstery and is not suitable for elastic webbing.



Springs lashed into place to prevent them moving around and helps them to work as one unit.



A layer of hessian is then applied and the top of the springs are tied to it. The actual padding is then ready to be applied which usually consist of flax or other natural fibre and wadding.

TECHNICAL INSTRUCTIONS REQUIRE VISUAL DEMONSTRATION EITHER IN PERSON OR THROUGH VIDEO INSTRUCTION TO FULLY UNDERSTAND AND GRASP THE TECHNIQUES REQUIRED IN REPAIDING FURNITURE.



CHAPTER 4

04

When it comes to re-upholstering furniture one of the most important and exciting steps is picking the fabric! Of course personal preference and taste are major factors in deciding on the fabric, however, there are a few other things to consider to help you make an informed decision.

Then the fun part: Applying the fabric! Assuming the foundation has been prepared adequately this part should be pretty straight forward on the assumption you start with a project not too complicated.

FABRIC



FABRIC OPTIONS*

- Woven: plain, jacquard, stripped, patterned, textured, tartan/plaid, boucle.
- Velvet/velour: plain, digital printed embossed.
- Digital printed
- Leather
- Vinyl: Textured, printed.
- Hide: sheep, cow, deer.

COMPOSITIONS

- Cotton
- Linen
- Wool
- Polyester
- Acrylic
- Animal skin
- PVC
- Blends

SOURCING

- Local fabric shops
- Online
- Local upholsterers and interior designers (have accounts with major fabric companies)



*Some fabric come with a stain resistant technology to help mitigate spills and everyday soiling. If not, you can get a stain repellent applied at the end either by yourself or by a professional.

THINGS TO CONSIDER

- The room it will be in: lounge, bedroom, kitchen, hallway conservatory, outdoors.
- Colour scheme: earthy, bold, neutral, bright, colourful, monotone.
- Other objects in the room: carpet, curtains, decor, paint and wallpaper.
- Artwork and other pieces of furniture: Sometimes people match the fabric to art work in the room!
- How much sunlight will it be exposed to: Darker colours tend to fade more noticeably if they are kept in direct sunlight.
- Do you have children or pets to consider? Will need to be hard wearing, hide stains and perhaps even be wipeable like vinyls.
- Colour of the frame: Greens and blues go really well with woodwork, whereas oranges and browns can clash.
- How much use it will get: regular use may require something more durable. Check fabric labels for rub tests and to see if its heavy duty.
- Your budget: how much you are willing to pay can put constraints on fabric selection.
- Sustainability: perhaps you're more eco-conscious, good thing there are more options coming into the market with more wools, and recycled polyester fabrics becoming available.



The same chair I found on the side of the road covered in two different fabrics!

GET CREATIVE

Sometimes people go for a combination of fabrics. For example, a patterned fabric on the inside panels, with a plain fabric on the outer panels.

Some people even combine leather and fabric panels for a very warm and sophisticated look.

I have also seen woollen blankets and even items of clothing used on furniture and cushions!

Don't be scared to be creative!

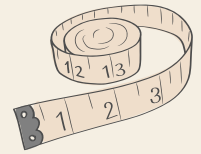
MEASURING



Measure twice.
Cut once.

You will need to write out what panels you need to cut. If an absolute newbie I will assume you only have 1-3 panels. (panel abbreviations are usually the start of each word as seen below).

IB - Inside back
OB - Outside back
S - Seat



Use a soft tape to measure front to back giving yourself an inch or two beyond the panel to allow for tacking and stapling, similar to what you did at the start, to determine fabric quantity. Write this down. Then do the same side to side. Always measure from the widest point so you don't cut it too small.

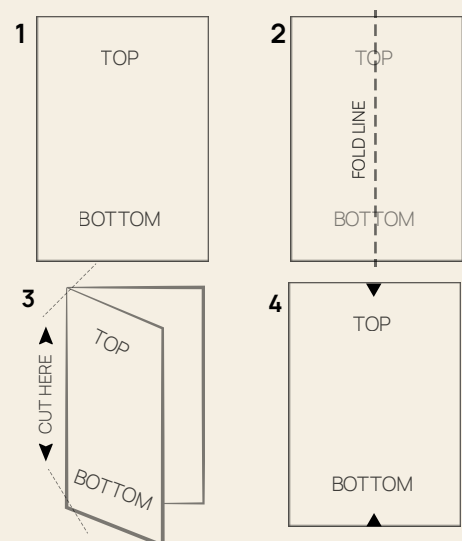
MARKING & CUTTING

Once all of the panels are measured out. You can figure out the most economical way to cut out each piece. You may need to draw a layout plan if there are multiple panels. Starting with panels that are over half width or full width. You can cut small panels alongside larger panels.

Roll out fabric on a large work bench ensuring the top is at the top (for pile and velvets the fabric must brush down). Using tailors chalk and a large ruler mark out your panels.

If you have limited space you may only be able to do a couple of panels at a time. Carefully cut with long cuts along the chalk line using heavy duty fabric scissors.

Once each piece is cut, mark a line at the top of the reverse of the fabric and the abbreviation of the panel beneath it so you can easily identify which part it is for and the direction it should go on your furniture. For complicated pieces you may need to draw around the shape of the existing panels.



To easily find the centre of your fabric panels, fold them in half by bringing the sides together and make a small cut (approx 5mm) on the top and bottom to create a small 'v'.



TACKING

Mark the centre front and back of the section of furniture you are working on by marking a small line on the edge of the frame using chalk or pencil. Place the corresponding fabric panel with the top being at the top/back of the section of furniture. Anchor in place using tacks or staples inserted on an angle (for easy removal later on) a few inches apart. Repeat this on the front/bottom of the panel. You may need to re-adjust the back tacks if there is not enough fabric to the front. You may need to repeat this step a couple of times so that the fabric is nice and taught. Then repeat this process on the sides until the fabric is in firmly in place. Aim to have an inch or two overhang of fabric on all sides..

STAPLING COVERS

Then you are ready to staple off the fabric. Essentially you will be repeating the same sequence and process as prior except you will staple flat and closer together. Do not staple too close to the edge of the wood but rather a mill or two away from it.

As you are stapling, smooth hand over the fabric and pull slightly firmer than when tacking. You will need to use one hand to hold the furniture while you smooth with the other hand. Hold fabric in place using thumb and index finger and staple a few staples in between, being careful not to staple yourself! If you feel like you need to redo some parts eg, fabric too loose or tight, or not smooth enough feel free to remove staples and try again.

Once you have gone around all the sides just the corners will be left; trim excess fabric and leave enough to carefully and neatly fold under before stapling





Tacking the back of the chair



Carefully stapling in place



Covers are all stapled, excess fabric trimmed neatly and ready for finishing!

BOTTOMS

Once you have finished stapling all the panels, then you can add the bottom . This is a very common step in upholstery, (however not always applicable as with the above piece of furniture) and is applied to hide all the staples underneath for a tidy finish.

We generally use calico for this step. The dimensions will be 1 inch bigger than the base itself each way. Place half an inch from the edge and staple ensuring that you are folding the bottom slightly under itself. Repeat this starting front to back then side to side until the entire base is covered.



05

CHAPTER 3

Finishings

Nearly there! The final step is to apply any finishings to your piece if required. This helps to cover any exposed staples and edges to give your fabric edges a nice finish. This also adds to the overall aesthetic. First I will briefly describe the various ways to finish an item before describing how they can be attached. Often you will choose the method prior to starting but sometimes you can wait until the end.





BRAID/GIMP

A very common and simple way to finish furniture using a narrow braid. Comes in many styles and shades so you can match it to the fabric and frame.



CHAIR NAILING

Metal studs that are nailed into the frame. Commonly seen on antique and bespoke furniture. Creates a very sophisticated look and often used to finish leather. Comes in various shapes, sizes and finishes so you can match it to your piece.
(Only suitable for wooden frames).



DOUBLE PIPING

Similar idea to gimp except it is made by sewing two adjacent lengths of piping in between the fabric of your choice (usually the same as the main fabric). You can also buy pre-made piping but limited in colours.

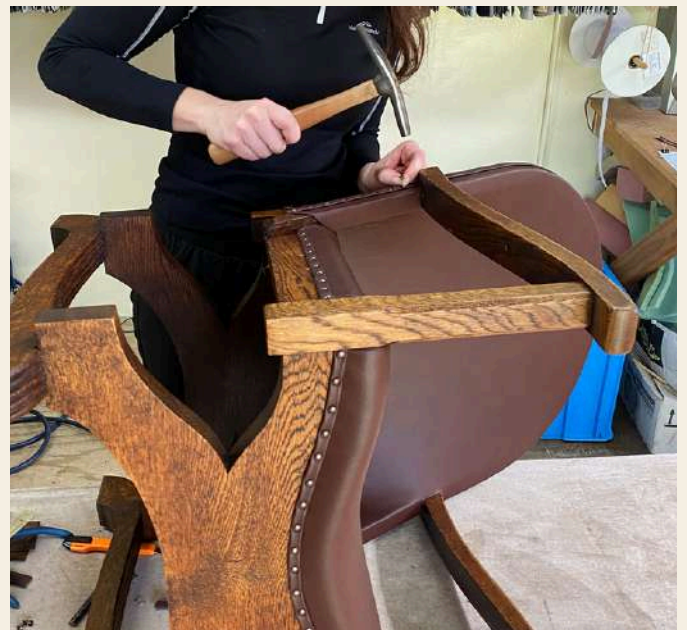


BRAID/GIMP AND PIPING

Apply using a hot glue gun, doing small sections at a time. Be careful not to over glue as it may seep out of the sides, while ensuring there is enough glue to keep it secure. Start by folding the end about 1cm under and stapling. Finish in the same manner by securing with glue. Sometimes you can go around using a gimp stapler to make it more secure.

CHAIR NAILING

Use a nylon tipped hammer to tap in chair nails. Decide what distance you want them apart or if you want them side by side. Each nail is inserted one by one but you can also get a strip of chair nailing to make it quicker and easier, however, this is not a product i have used before.



OTHER FINISHES

Other finishes include fringing which can be glued and/or hand-stitched. Creates a luxurious look.

You can also finish using a narrow strip of leather that has been secured with evenly spaced chair nails as seen above.

Finished

ENJOY YOUR NEW PIECE OF ART!



FIVE STEP FRAMEWORK RECAP

1



Furniture

Find your new project!

2



Frame

Strip furniture and prepare the frame

3



Foundation

Prepare foundation with webbing, foam and tetron

2



Fabric

Cover your furniture in the fabric of your choice.

3



Finishings

Apply your preferred finishings.

Reflections

Checklist

Below is a checklist of action steps to help you get started on your journey, and to implement the steps outlined above! You can do some steps simultaneously.



SOURCE PROJECT

Remember it is best to start small like a dining chair or stool!



SET UP WORKSPACE

Create a safe workspace.



COLLECT AND GATHER

Relevant tools, material, supplies and safety gear.



GET STARTED!

On that project you've always been waiting for.



FABRIC

Source your preferred fabric and finishings.

NOTES:



THANK YOU!

I hope you enjoyed this guide as much as
I have enjoyed putting it together and
are now feeling inspired to give it a go!



@revive_upholstery_nz

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