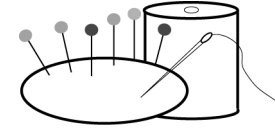




# Basic sewing steps



## You can sew (and still have fingers left!)

You don't need to sew perfectly to create great costumes, but it sure helps to know the basics. If you haven't done much sewing before, don't worry! This chapter can help you get started.

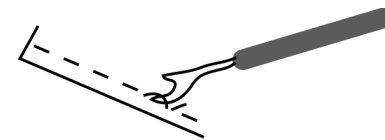
## Essential equipment

Although you can sew with just a needle and thread, I highly recommend having access to tools like these:

- ✧ Seam ripper (an absolute *must* for removing stray stitches and icky seams)
- ✧ Measuring tape (the soft, flexible kind works best)
- ✧ Sharp scissors, preferably used only for sewing (paper dulls scissors rapidly)
- ✧ Straight pins, small to medium sized
- ✧ Sturdy thread (very cheap thread tends to break and jam your machine)

## Words to know

- ✧ **right side** — your fabric's best looking side
- ✧ **seam allowance** — distance between seam and edge of fabric (usually 1/4")
- ✧ **presser foot** — part of sewing machine that holds fabric in place while the "feed dogs" pull it through (must be lowered in order to sew)
- ✧ **seam ripper** — the most important sewing tool!



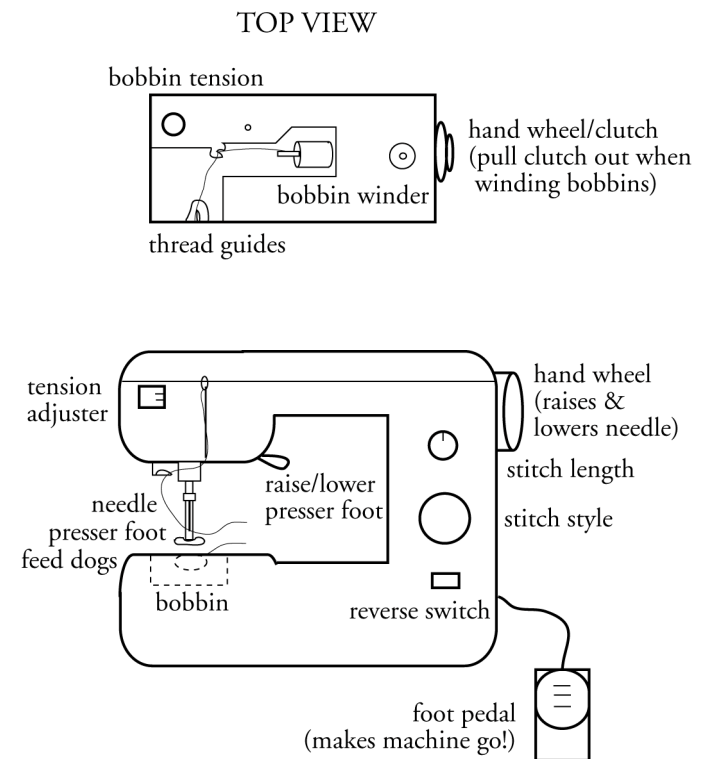
- ✂ Cardboard measuring mat (not absolutely essential, but very handy)
- ✂ Iron (and a place to iron—you can buy very small ironing boards that work on any flat surface)
- ✂ Sewing machine (as discussed below)

## Sewing machines

Unless you're an expert handsewer, I recommend getting a sewing machine. They're fast, they do a good job, and they're easy to use. You don't need anything fancy—as long as it does straight stitching of adjustable lengths and runs decently, it'll do. Decorative stitches and zig-zags can be useful but they're not necessary. Many sewing machine stores sell inexpensive used models, and you can always trade up if you ever want a better machine. Be careful, however, about getting a machine that betrays you at every other stitch. The machine should run smoothly and without jamming, producing steady, even stitches. Run a test scrap and scrutinize the stitches carefully to make sure they're all the same length.



Since every machine is different, you need to check the manual to see how to wind bobbins and thread it. Most machines have a veritable gauntlet of gadgets (mine has seven) the thread must pass through before reaching the needle. If yours doesn't come with a manual and you've gotten tangled up trying, ask the people where you bought it or the people at your local fabric store for help.



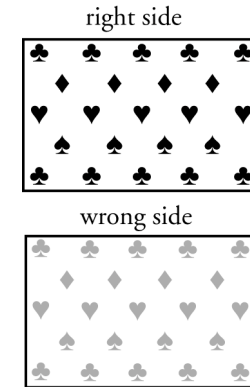
## When your machine wants to quit working before you do

- ✂ Rethread the machine completely (top and bottom)
- ✂ Look for anything in the bobbin area that may be jamming things up. Broken needles, pins, and even lint build-up can prevent smooth operation. (Because of this, try to avoid sewing over pins whenever you can.) Then rethread the machine.
- ✂ Replace the needle and rethread the machine

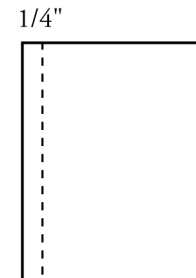
If all else fails, start looking for repair shops. (I can usually get my 10-year-old machine to behave just by waving a trade-in coupon in front of it a few times.) A reputable, friendly repair shop is an absolutely invaluable resource (if you have the good fortune to find one). Did I mention you should rethread the machine?

## IMPORTANT first steps

As a general rule, you need to sew your fabric *right sides together*. The right side is the one you want facing out when the costume is finished. It's usually brighter, shinier, more finely printed, or just plain better looking than its opposite, the wrong side. (If try as you may, you can't tell the difference between sides, you're probably pretty safe in assuming it doesn't matter for that particular fabric.) By sewing fabric right sides together, you can turn the pieces right side out when you're done sewing, leaving the stitching and untidy ends inside the costume where they won't show.



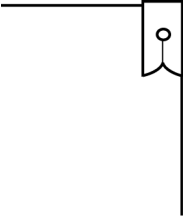
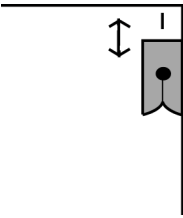
The distance between the stitches and the edge of the fabric is called seam allowance. One fourth of an inch (1/4") is the standard seam allowance for all the costumes in this book, and for most small costumes in general (5/8" is standard for human-sized clothes). This not only affects how far from the edge you sew, but the way you cut your fabric. You always need to make sure each of your costume pieces includes an extra 1/4" all the way around to get eaten up by the seam allowance. Having a sufficient amount of seam allowance is critical to the longevity of your costumes, since seams sewn too close to the edge are not only difficult to create, but liable to come apart at the most inconvenient moments.



Last of all, there's very little sewing that can't be redone. Keep your seam ripper handy and try it again (and again). So watch your fingers and start stitching!

## Start stitching!

Since straight seams are the easiest to sew...

1. Get a fabric scrap (or a paper towel) and fold it in half right sides together.
2. Place your scrap in the machine so that the unfolded edges line up with the edge of the presser foot (this creates approximately 1/4" seam allowance). 
3. Turn the wheel on the side of your machine towards you to lower the needle into the scrap.
4. Next, put the presser foot down (there's usually a little lever for this). The presser foot must be down whenever you stitch. This allows the material to automatically feed through evenly—you should never have to push it. You only need to gently guide it through.
5. Press the foot pedal to stitch forward a few stitches, then stop.
6. Press the "reverse" level or button to stitch backwards a few stitches. This is the machine equivalent of tying a knot and will hold your stitches in place. 

## Key to illustrations

✂ foot up, needle up



✂ foot up, needle down



✂ foot down, needle up

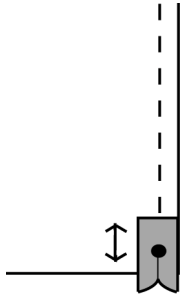


✂ foot down, needle down

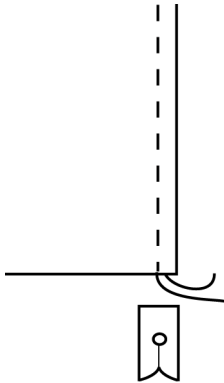


Some machines come with several changeable feet, each with a different purpose. A zipper foot is one of the most common (and most useful)! I still don't know what most of the feet on my machine are for, so don't worry if you don't have a lot of them.

7. Continue stitching forward until you get to the end of the fabric. Reverse for a few stitches again, then stitch forward off the end of the fabric.



8. Raise the needle to its highest position. This prevents it from becoming unthreaded.
9. Raise the presser foot and remove the fabric from your machine.



10. Cut off the extra threads hanging from the fabric so they don't get in the way later.

You did it! Look at that lovely seam! Turn your scrap right side out to admire it fully. If you can do that (plus a few more tricks explained shortly), you can sew the costumes in this book!

If your seams don't come out right (and this happens to everyone, beginner or expert), you can always use a seam ripper to tear them out and try again. That's the beauty of sewing.

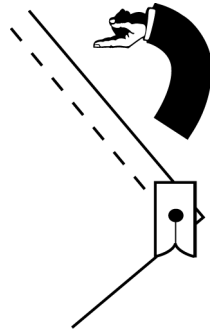
### Up (and down) on the corner

Of course, you would have a difficult time costuming if you could only sew straight seams.

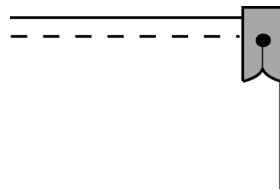
1. When you come within 1/4" of a sharp turn, lower the needle into the fabric, then raise the presser foot.



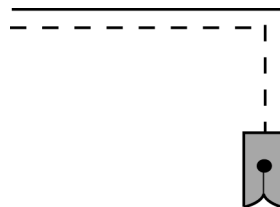
2. Pivot the fabric to the left. Since you have the needle lowered, you won't lose your place in the stitching.



3. Line the fabric up with the edge of the presser foot again, then lower the presser foot.



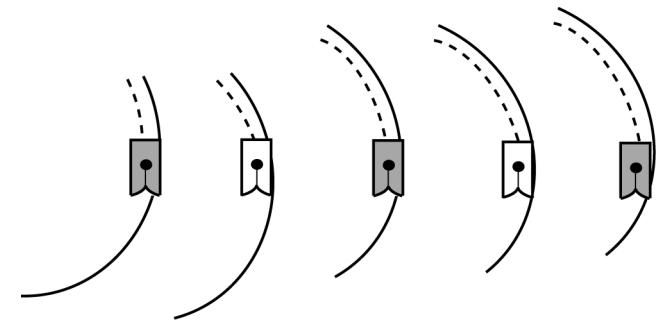
4. Continue stitching merrily as usual!



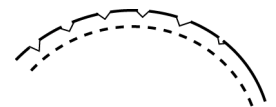
## Rounding curves

Approach curves *slowly* and watch your fingers. For gentle curves, that's all the advice you need. For more rambunctious curves, you need to make lots of little stops and pivots (not huge changes in direction). (You may also want to shorten the stitch length.)

Whenever you feel the fabric becoming hard to steer, lower the needle, raise the foot, pivot the fabric just a little, then lower the presser foot again and continue sewing. Keep repeating this until you're back on the straight away.



Once you've completed your curved seam, you may need to snip the seam allowance here and there to make the costume easier to turn right side out (just be careful not to snip the seam...)



## How hot?

Generally speaking, synthetic fabrics (like nylons and polyesters) don't tolerate heat as well as fabrics made from natural fibers (like linens, cottons, and silks).

Most irons these days come marked according to types of fabric rather than temperature, but if you're not sure which setting to use, try ironing a scrap of the fabric first. If you can get a nice crease without scorching the fabric, it's just right. Wait for the iron to get hot before you start pressing!

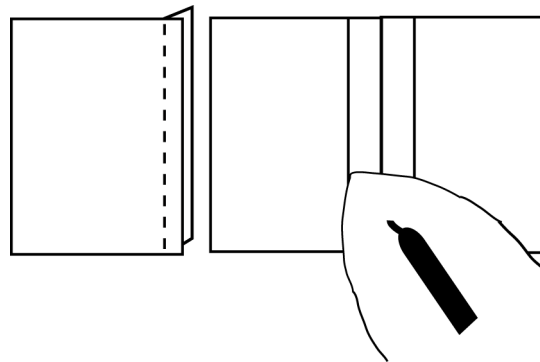


## Pressing matters

Once you've sewn your seams, it's generally a good idea to iron them flat (but please don't try it with a paper towel, okay?) This helps the costume look and hang dramatically better. Some people like to iron their seam allowance to one side; others insist you must spread the seam open and iron it flat. Some fabrics naturally iron better than others, so my advice is do whatever your fabric wants to do. If it wants to lay to one side, iron it to that side. If it doesn't mind being ironed open, iron it open.

Beyond that, the key to good ironing (and good costuming) is to iron early and iron often. Don't wait until you've finished the costume. Instead, iron each seam or part that needs ironing as you go.

For many fabrics, you may need to spritz the costume with a bit of water from a spray bottle to get it completely smooth. For delicate fabrics, you can put a damp press cloth (like a cotton handkerchief) on top of the fabric to protect it from heat and water stains.

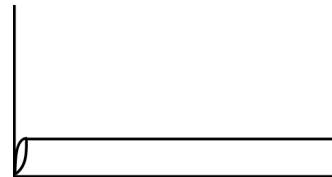
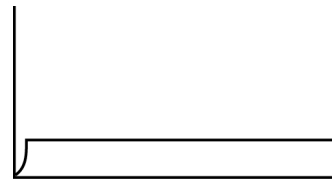


## Hemming

Hems give edges (like necklines and the ends of sleeves and pant legs) a smooth, completed appearance. They also keep the fabric from raveling.

To make a hem:


1. Turn the edge under 1/4" (toward the inside of the costume). For curved edges, you may need to snip the fabric here and there as on page 19.
2. Iron the turned-under edge flat.
3. Turn the edge under another 1/4" (this encases the ends of the fabric and keeps them from raveling) and iron again if necessary.
4. Pin the folded-under edge to the fabric to hold it in place. Remove the pins as you stitch along the edge.




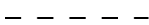
**NOTE:** For a softer hem, you may want to stitch the edge by hand using the whip stitch from page 26. To keep the stitches from showing on the outside, carefully poke the needle through just a few threads of fabric.

## In stitches

For most sewing, a medium length straight stitch works best. If you use special stitch, set your machine back to normal as soon as you're done so you won't surprise yourself the next time you sew.

✂ **Zig-zag**   
 These can slow down raveling along the edges of seams (see page 23).

✂ **Decorative**   
 Nice, but not necessary. I like to use scallop stitches for decorative hems.

✂ **Basting**   
 A longer length straight stitch, basting is faster and easier to tear out than normal stitching. You may want to baste tricky seams first. If it works well with basting, then stitch it! Basting can also create gathering (see page 22).

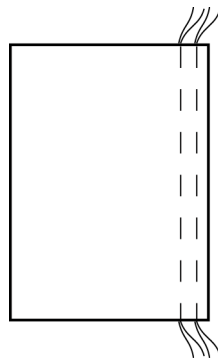


## It takes two threads to have a gathering

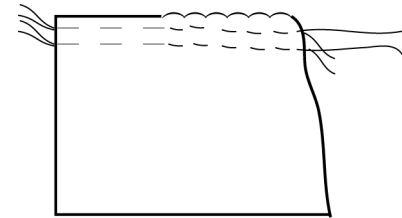
Gathering works great for creating fullness in sleeves, skirts, hats...just about anything that needs a bit of ruffle. It does, however, require extra fabric, and that means planning ahead. For light gathering, you need about 1.5 times more fabric than usual, while full, ruffly gathers take 2-3 times more.

You also need at least 1/2" in seam allowance (that's double the usual amount) since you need to sew two seams for each row of gathering. Gathering with a single thread causes uneven, difficult to manage bunches of fabric and makes the thread liable to break. (Try it on a scrap and see.) To create strong gathers:

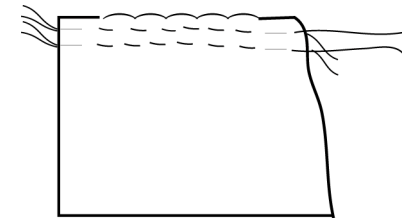
1. Set the stitch length on your machine to the longest length possible. (This creates "basting.")
2. Stitch along the edge of the fabric 1/4" from the edge. (Since you need to grab hold of the end threads, don't cut them off until you're completely finished with them.)
3. Stitch a second row of basting 1/4" from the first.



4. Grasp the top thread from one end of each row and pull *gently*. This causes the fabric to gather.



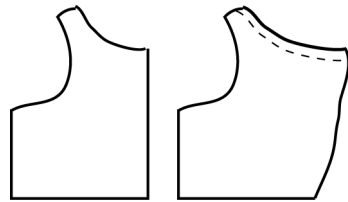
5. Gently spread the gathers to the other end of the fabric by pinching and pulling them with your fingers, then continue pulling on the threads. (You may want to gather from both sides of the fabric to prevent the threads from pulling out.)
6. Once your fabric has enough gathers, use your fingers to spread the gathers out as evenly as possible.



It's generally easier to overgather the fabric at first, then loosen the gathers (by spreading them out with your fingers) as you fit them to the costume. Once you have your gathers just the way you want them, you can stitch over them with a normal length stitch to help hold them in place. (Go slowly and hold onto the fabric firmly to keep the machine from pushing all your gathers out!)

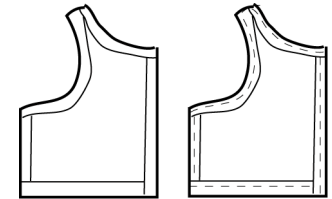
## Special techniques for stretchy fabrics

Stretchy fabrics can be great for costumes since they usually ravel less than other fabrics and may even let you slip a simple costume on and off without using fasteners. However, some fabrics have so much stretch that you can't machine sew them without pulling them out of shape.



To fix this, you need a stabilizer. A stabilizer is a material that lends support to stretchy fabric. (It also works well for fabrics that are especially flimsy or delicate.) You can use any non-stretchy fabric (like a cotton, polyester, or cotton-poly blend) as a stabilizer, or you can use pre-packaged interfacing. The easiest kind to use is iron-on interfacing which, as its name suggests, has a special surface that sticks to fabric when heated with an iron. Just follow the directions on the package.

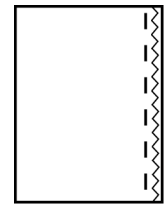
No matter what kind of stabilizer you choose, you need to attach a narrow strip of it to the *wrong side* (the side that won't show) along every edge of each stretchy costume piece. This doesn't require any extra seam allowance, but you do need to stitch (or iron) it on before you begin sewing the costume together.



Once the stabilizer is attached, you can sew the costume together as usual.

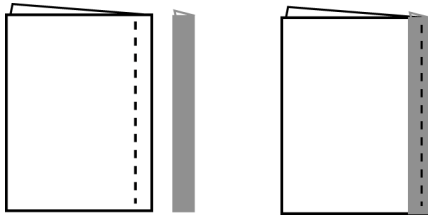
## Special techniques for raveling fabrics

Even though it's a good idea to avoid raveling fabrics altogether, even seemingly well-behaved fabrics can become entirely different beasts after you get them home (especially after their first washing!)



One of the most common ways to slow raveling is to zig-zig stitch close to the edge of the fabric.

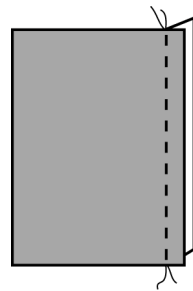
Alternatively, you can fold a piece of wide ribbon or a strip of non-raveling fabric over the seam allowance so the offending edges become enclosed. You can then stitch the ribbon onto the seam allowance. (Be careful to stitch to the right of the original seam, so the new stitches won't show on the outside of the costume.)



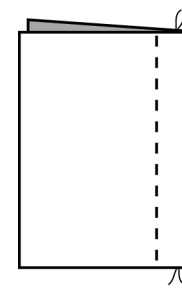
## French seams

If you notice your fabric raveling but haven't actually started working with it yet, you may want to try "French seams." If you use this method, you need to *double* the seam allowance to 1/2" prior to cutting your fabric since each seam is actually two seams:

1. Place your fabric *wrong sides together* and stitch it together.



2. Turn your fabric *right sides together* and stitch the seam again, making sure that this seam is further to the left than the first seam. (This prevents the first seam from showing.)

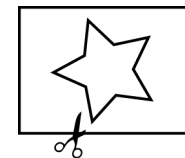


Now the seam is totally enclosed with no loose ends to ravel!

## Easy appliqué

For some costumes, you may want to sew pieces of one fabric on top of another for a decorative or patchwork look, like that of the Supersheep, accordion player, fire fighter, and Scarecrow clothes on the covers of this book. You can use ready-made appliqué patches (like the flowers on the accordion player's lederhosen), or you can cut shapes from fabric:

1. Cut the shape you want from a piece of fabric that contrasts with the rest of the costume.



2. Place the shape on the costume. (If you want, you can use an iron-on product called fusible web—available in most fabric stores—to hold it in place, but this isn't really necessary.)

3. Zig-zag stitch around the edge of the shape to hold it in place and keep the edges from raveling. (If you don't have a zig-zag, you can use the whip stitch from page 26.) Be careful not to sew the costume shut!



## Sewing by hand

Most of the costumes in this book can be done exclusively by machine (with your help, of course), but there are times when you may find sewing by hand quicker and easier, or perhaps even necessary.

A few of the most essential hand stitches include tacking, the whip stitch, and the backstitch. But before you can stitch, you need to start off.

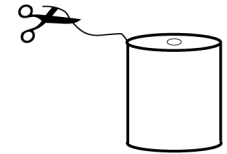
### Start off

The key to hand sewing is to make small stitches that are as even as possible (and that takes practice!) To make things easier, try to find a medium sewing needle with a good sized eye.



When you cut your thread, make sure it's long enough to finish what you need to do but not so long that it becomes tangled and difficult to manage. To keep the thread from knotting, you can run it through a dryer sheet a few times before starting.

1. Find the end of the thread (it should be nested in a groove in the spool), and trim it off. This gets rid of any raveling or loose ends and makes threading the needle easier.



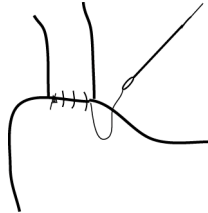
2. Poke the end of the thread through the eye of the needle.
3. Pull the thread through until you have a comfortable length of thread to work with, then tie a knot in the end of the threads. (Having two layers of thread makes the thread stronger and easier to tie off.)



You may have to tie several knots, one on top of the other, to make the knot large enough to not slip through the fabric. Then you're ready to stitch!

## Tacking

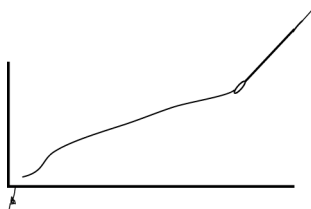
Tacking is any sort of casual stitch that holds small areas fabric in place, sort of like a soft, permanent safety pin. The whip stitch (shown below) works well for this.



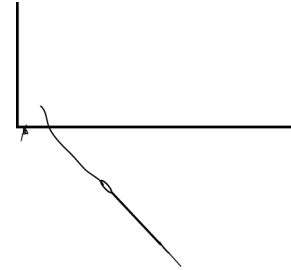
## Whip stitch

Unlike many other stitches, the whip stitch curls around the edge of the fabric. It's quick and easy to do, and works well for seams that don't need a huge amount of strength. (For seams that need to take a lot of strain and abuse, I recommend the backstitch.)

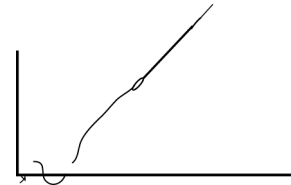
1. Once you've threaded the needle and knotted the thread (as directed on page 25), poke the needle through the underside of the fabric. Pull gently until the knot becomes snug against the fabric.



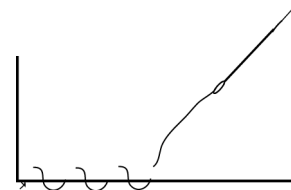
2. Bring the needle toward you, over the edge of the fabric.



3. Poke the needle through the underside of the fabric again, not too far from the knot. (The further away you go, the larger the stitches will be. Large stitches go faster, but don't hold as well as many small ones.)



4. Repeat steps 2 and 3 until you come to the end of the section you want to stitch (or start to run out of thread).

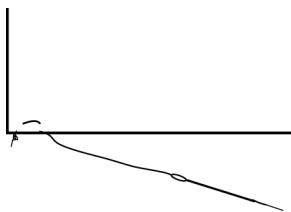


When you're ready to "Finish off," see page 28.

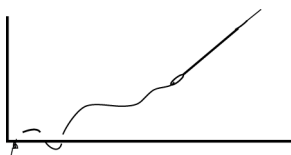
## Backstitch

This classic stitch works great for holding fabric together—even large pieces that have to take a lot of strain.

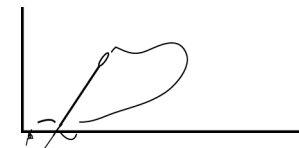
1. Once you've threaded the needle and knotted the thread (as directed on page 25), poke the needle through the underside of the fabric. Pull gently until the knot becomes snug against the fabric. Then poke the needle back down through the fabric a short distance away.



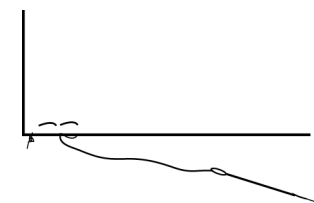
2. Poke the needle up through the fabric again, a short distance away from where you just came down. The shorter the distance, the smaller (and stronger) the stitches will be.



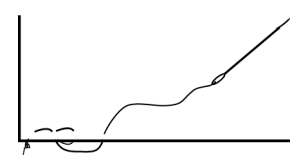
3. Put the needle down through the fabric in the same place that the first stitch ended and the second stitch started. (This “backward” stitch is what gives the backstitch its name and its strength.)



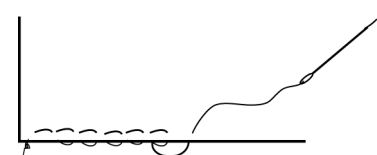
4. Pull the needle gently down through the fabric until the stitch becomes snug, but not so tight it strains the fabric.



5. Come up again where you want the next stitch to end.



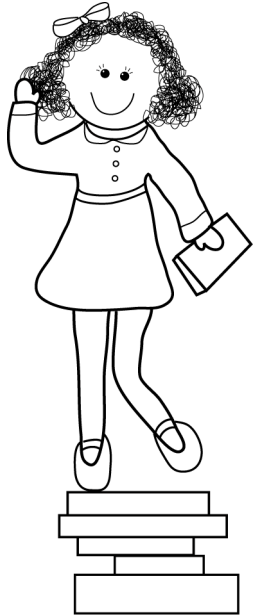
6. Repeat steps 3 and 4 until you've come to the end of the section you want to stitch, and you're ready to finish off! (See page 28.)



## More sewing stuff

This chapter has just picked at the surface of basic sewing techniques. Most book stores offer a wealth of good multi-topic introductions, as well as in-depth information on more advanced styles and specialties.

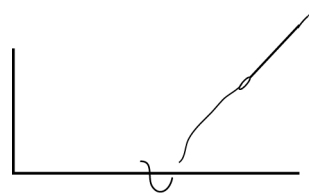
If you feel you need hands-on sewing help, you can find various levels of sewing classes at many fabric, craft, and sewing stores.



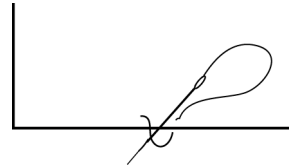
## Finish off

Once you have your stitches completed, you need to tie another knot (or two) to hold them in place.

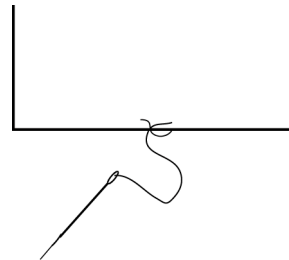
1. Poke the needle through the edge of the fabric to make a small loop.



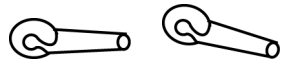
2. Put the needle through the loop.



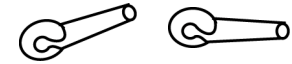
3. Pull gently until the loop closes up into a knot.



Repeat the knots as needed, and you're finished!



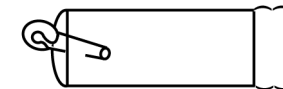
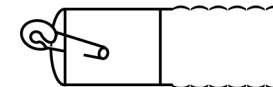
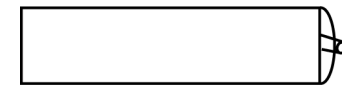
# Nifty safety pin trick



## What's it for?

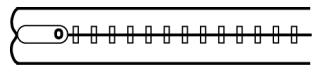
You can use the Nifty Safety Pin Trick whenever you need to turn a long, skinny tube of fabric (like a sleeve, strap, or waistband) right side out.

1. Stick the safety pin through one layer of the strap.
2. Push the safety pin head first into the strap (it's not as violent as it sounds).
3. Push the pin forward while pulling the material towards the pin so that the material bunches up and begins to go inside the strap.
4. Keep pushing and pulling until the safety pin comes out the other end.
5. Hold the material gently in one hand and pull the pin until all the material is right side out.
6. Remove the pin and you're done! Nifty, huh?

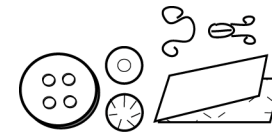


**NOTE:** For the best results, make sure to iron the fabric flat after you turn it!





# Zippers, buttons, & more



## What kind of fastener works best?

Unless you have a separate puppet for every costume, you probably want your puppets to be able to change their clothes. (Enter fasteners.) The kind of fastener you choose depends on the costume you're making, the performances it may be used in, and your personal preferences.

Major fastener types include:

- ✧ **Zippers** — the fastest, smoothest, and quietest way I know to get puppets in and out of their costumes easily and quickly. (This is especially important if you ever have to change your puppet's costume between scenes.) The only thing they aren't good for is very small openings.
- ✧ **Buttons** — great for any size opening (and decorative too!) If your puppet needs to make a quick costume change, however, you may want to consider installing a zipper or velcro in the back and using buttons for decoration only.
- ✧ **Snaps** — suitable for any size opening and fairly easy to conceal.
- ✧ **Hooks & eyes** — good for very small openings, but liable to come apart if the costume is too loose.
- ✧ **Velcro** — although quick and easy to install and to open and close, velcro has a tendency to snag on puppet hair, fuzzy cloth faces, shaggy carpet, loose threads, and anything else it can get its teeth into. It can also be loud. If you use velcro, make sure to get the sew-on kind since the gummy backed kind falls off far too easily.



## IMPORTANT first step!

Unless the edges of your costume are already hemmed (like lined suits and vests), you need to make sure the costume fits your puppet before you begin installing any fasteners. Leave enough extra material along the opening to allow room for hems and fasteners (see chart below) and to allow your puppet some “breathing” room. Then trim off any excess.

✂ **zippers** — 3/4”

✂ **buttons** — 1 1/2”

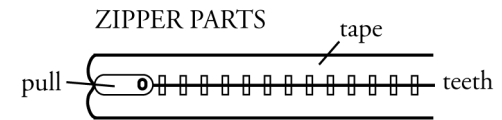
✂ **snaps** — 1 1/2”

✂ **hooks & eyes** — 1/2”

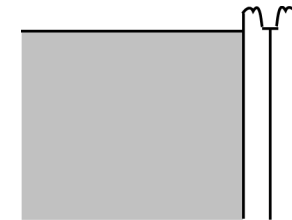
✂ **velcro** — 1/2-1 1/2” (see page 36)

If you're running short on room for hems and fasteners, you can make the hems smaller than normal by only turning the fabric under 1/4”, or even 1/8”. You can also try fasteners that don't need the opening to overlap, like hooks & eyes (page 35) or velcro (page 36).

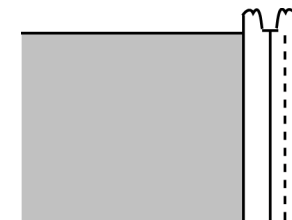
## Put in a zipper



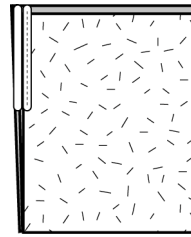
1. Place the zipper face down against the right side of the fabric, lining up the right edge of the zipper tape with the right edge of the fabric. The zipper pull should be just below the top of the costume opening.



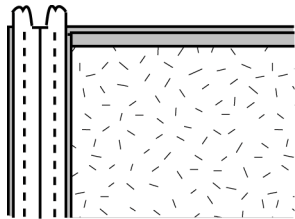
2. Stitch the zipper tape to the fabric. (If your sewing machine has a zipper foot, this is the time to use it.)



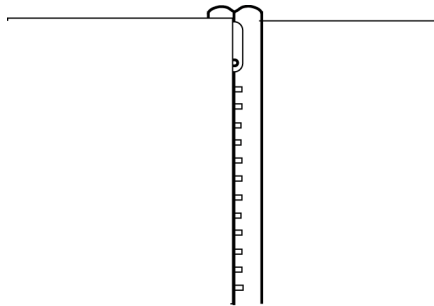
3. Fold the costume in half right sides together so the unsewn edge of the zipper lines up with the other side of the costume opening.



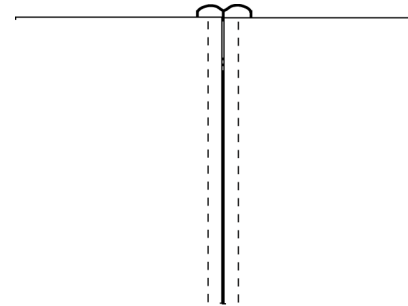
4. Stitch the other side of the zipper tape to the fabric.



5. Turn the fabric right side out and pull a little bit of material from either side of the costume towards the middle, making two flaps that just touch each other, covering the zipper. (I only drew one flap here for clarity of illustration.)

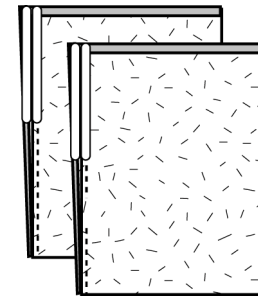


6. Stitch both flaps to the zipper tape.



7. Cut off any zipper tape that's sticking up above the costume.

8. Turn the outfit inside out and stitch the material below the zipper (right sides) together.

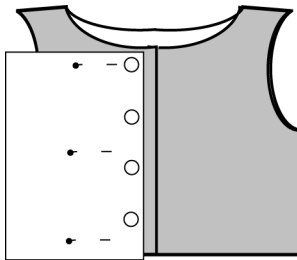
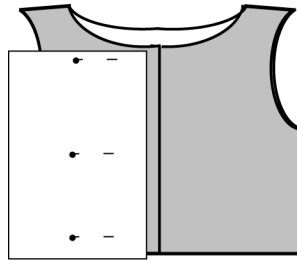


If you are making the costume for a hand puppet whose clothes are more than a few inches longer than its body, you may want to leave an open space in this seam so you can slide your hand into the puppet without hiking up its clothes (definitely the wrong kind of puppet show).

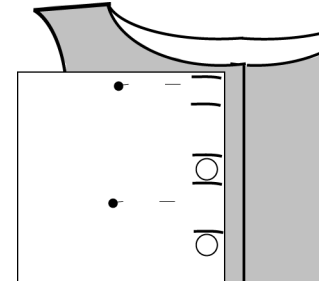
## Buttons & buttonholes

Before you can make buttonholes, you need to decide where to put them. Some people like to mark the buttonholes directly on the fabric (using pencil or dressmaker's chalk), but I prefer to use paper towels.

1. First, pin a piece of paper towel to the fabric right next to where you want the buttonholes.
2. Lay the buttons out on the paper towel. (How many you use depends on the costume style and size.)
3. Arrange the buttons in a straight line, as evenly spaced as possible. Once you've got it right by "eyeing it," you can measure to make sure.



4. With a felt or ballpoint pen, draw a line on the paper towel at the top and bottom of each button to mark its place. Once you have the buttonholes marked, you can remove the buttons, but leave the paper towel pinned to the fabric.



### Get ready for the buttonholes

Before you can put buttonholes in your puppet's costume, you need to follow the "IMPORTANT first step!" on page 31 and hem both sides of the opening using the technique from page 21. For crisper, neater buttonholes, you can add a stabilizer to the underside of the opening that will have the buttonholes. I recommend iron-on interfacing (available at most fabric stores).

**NOTE:** Since buttonholes can be tricky at first, you might want to practice on scrap fabric first.

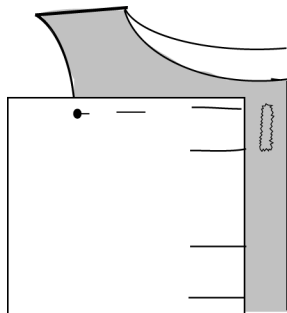
## Sew the buttonholes

Each button hole has two parts—the hole itself, and the stitches that surround its edges. Without stitches to keep the fabric from tearing and raveling, the hole would just keep getting bigger until it could no longer hold the buttons in place.

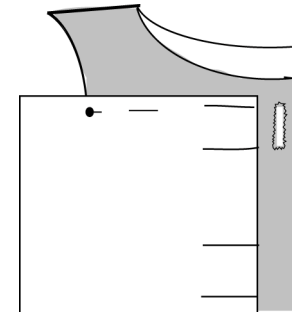
Some sewing machines have a special setting for making buttonholes. If yours does, follow the directions given in the manual. If your machine has a zig-zag stitch, you can also make buttonholes by machine. If not, you can make them by hand.

To sew the buttonholes by machine:

1. Set your machine to a *very short* zig-zag stitch. This usually means turning down the stitch length until the zig-zag is almost solid. (You may want to test various lengths on a scrap before you get started on the costume.)
2. Zig-zag stitch a rectangle next to each marking on the paper towel guide, no wider than the thickness of the button. (See page 18 for stitching techniques.)

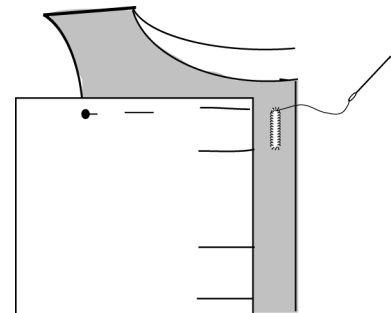


3. Slit open the buttonhole area using a sharp scissors or seam ripper. (Be careful not to tear the stitches!) I like to use a seam ripper to poke lots of holes in the buttonhole area first, since this makes the fabric much easier to slit.



To sew the buttonholes by hand:

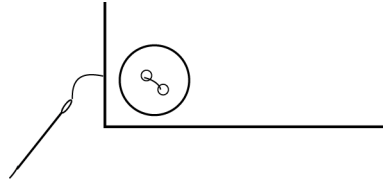
1. Make a slit next to each buttonhole mark, no wider than the thickness of the button.
2. Stitch around the edge of each hole using the “Whip stitch” from page 26, making the stitches as close together as possible.



## Sew on the buttons

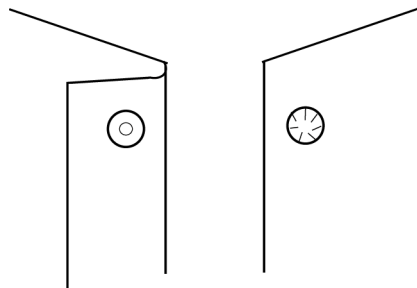
Before you sew the buttons on, make sure to line them up carefully with the buttonholes.

Buttons come in many different shapes, sizes, and styles, but you can sew them on in much the same way. Just make sure to stitch over the button at least 3 or 4 times to hold it in place.



## It's a snap!

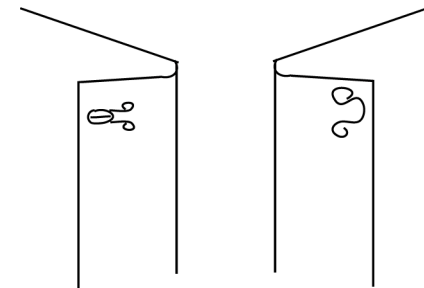
First, follow the “IMPORTANT first step!” on page 31 and hem the edges of the costume opening (see page 21). Then sew the snaps on (using the whip stitch from page 26) or buy a snap kit that allows you to bang them on with a hammer. Either way, make sure to position your snaps carefully so the two parts line up.



## Hooks & eyes

Unlike many other fasteners, the two sides of the costume opening won't overlap when you use hooks & eyes. This makes them a good choice if your puppet's costume isn't wide enough for the opening to overlap. If you can, try to purchase locking hooks & eyes (the kind commonly used on brassieres) to make sure your puppet's costume doesn't accidentally come open.

After you follow the “IMPORTANT first step!” on page 31 and hem the edges of the costume opening (see page 21), make sure to place the hooks & eyes carefully. If the hook (curled piece) and eye (loop piece) are too far apart, the costume may bunch up in the middle when you hook them together. If they're too close, you may end up with a gap. In general, the end of each piece should be very close to the edge of the costume hem but not sticking out.

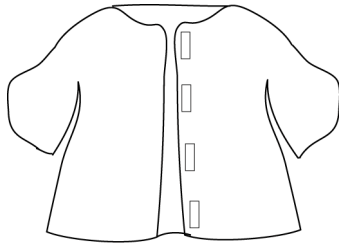


## Velcro adventures

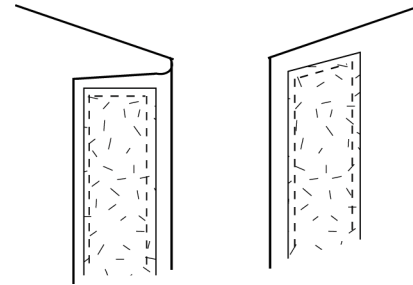
I've never found gummy-backed velcro very useful for costuming. It just doesn't stick well enough to take the constant use and abuse that puppet costumes go through. (I might add that trying to sew gummy-backed velcro can quickly ruin your needle or, worse, jam and damage your machine.)

The sew-on kind, however, works great. To install velcro, follow the "IMPORTANT first step!" on page 31 and hem the edges of the costume opening using the guidelines on page 21. Then place pieces of velcro on each side of the costume—one on the outside, the other on the underside.

You don't actually have to put a solid of piece of velcro all the way down the costume. A few strategically placed pieces can do just as well.

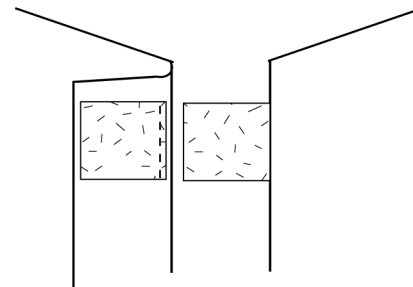


Once the velcro's in place, stitch around each piece.



Unfortunately, the stitches do show on the outside of the costume when you sew on velcro this way. This might not be bad on the back of the costume, but it doesn't look so great on the front.

To avoid this, you can sew the velcro to the inside of the costume's hems. If you stitch only to the hem layer (and not to the costume itself), the stitching won't show.



This method isn't quite as sturdy as sewing the velcro on every side, but it works in a pinch. It's also great if the costume isn't big enough to make the opening overlap.