

## FLYING GEESE PINWHEEL 12" X 12" QUILT BLOCK | BEGINNER

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## PROJECT DESCRIPTION

The Flying Geese Pinwheel block-a classic! We will piece, quilt, and bind this $12^{\prime \prime} \times 12^{\prime \prime}$ block just as you would a full size quilt.

Learn all the professional quilt-making techniques you need to begin your journey into the awesome world of quilting!

## SUGGESTED FABRICS

100\% Quilting Cotton.
Quilting can be done with a variety of fabrics but we recommend good quality quilting cotton. It will wash well, be durable and it comes in the best prints.
(And if you use cotton thread and cotton batting, everything shrinks, wears, fades all at the same rate).
If you chose not to pre-wash your fabric (we never do!), it will shrink about 3-5\%.

## MATERIALS REQUIRED

You will need 3 different fabrics, $1 / 4 \mathrm{yd}$ or fat quarter of each

## TOOLS REQUIRED

- 45 mm rotary cutter with a fresh blade
- self-healing cutting mat
- $100 \%$ cotton thread
- fabric scissors
- straight pins / wonder clips
- safety pins for quilt basting
- cotton batting
- $1 / 4^{\prime \prime}$ seaming foot / sticky-notes / painters tape
- free-motion quilting foot (aka darning foot)

OR

- walking foot (aka even feed foot)


## CUTTING



## Step 1

In quilting, we cut strips of the correct width from our fabric, then subdivide the strips into smaller pieces. First, cut one edge of your fabric to get a nice clean edge. Then flip it around so the cut is on the other side and you will measure in from here.

If you are comfortable cutting more than one fabric at a time, you can layer fabrics A, B and C and cut a 3 1/2" wide strip of all three at once. If not, cut each fabric individually:
For Fabric A cut a strip that measures $31 / 2^{\prime \prime}$ wide $x$ at least $14^{\prime \prime}$ long. Subdivide the strip into 4 squares $31 / 2^{\prime \prime} \times 31 / 2^{\prime \prime}$

For Fabric B cut a strip that measures $31 / 2^{\prime \prime}$ wide by at least 26 " long. Subdivide the strip into 4 rectangles $31 / 2^{\prime \prime} \times 6 \frac{1}{2} 2^{\prime \prime}$
For Fabric C cut a strip that measures $31 / 2^{\prime \prime}$ wide by at least $40^{\prime \prime}$ long. Subdivide the strip into 4 rectangles $31 / 2^{\prime \prime} \times 6 \frac{1}{2 \prime \prime}$ "and 4 squares $31 / 2^{\prime \prime} \times 31 / 2^{\prime \prime}$
[See layout on the next page]

## Cut pieces should measure:

Fabric A: 4 squares cut to $31 / 2^{\prime \prime} \times 31 / 2^{\prime \prime}$
Fabric B: 4 rectangles cut to $31 / 2^{\prime \prime} \times 6 \frac{1}{2} 2^{\prime \prime}$
Fabric C: 4 rectangles cut to $31 / 2{ }^{\prime \prime} \times 6 \frac{1}{2} 2^{\prime \prime}$ +4 squares cut to $31 / 2^{\prime \prime} \times 31 / 2^{\prime \prime}$


## Cutting is Complete!

## PIECING

## Step 1

Take the squares of Fabric A and C and draw diagonal lines on the WRONG side of the fabric.
These will be your sewing lines.
Set them aside

## Step 2

Take all four (B) rectangles and lay them out with right side facing up.

Place one square of fabric (A) on the top of one rectangle, right sides together, with the diagonal line going from the top right corner running diagonally to the left. The square will extend slightly past the midway point of the rectangle, and this is correct placement.

Repeat this step four times, so that each rectangle has a square on top of it. These are now lined up and ready for sewing.

## Step 3

You will sew along the diagonal line that you drew, starting at one corner of the block. Instead of clipping the threads between each block, simply sew off the edge of the initial block, leave a few stitches without any fabric under them and slightly lift the presser foot up to feed the next unit under the needle.
Continue to sew each of the four units in this manner, only clipping the threads upon completion of the fourth diagonal line. This is called chain piecing.

## Step 4

Trim the excess fabric down to a $1 / 4^{\prime \prime}$ seam allowance.


## Step 5

Press the seam allowance towards the triangle.


## Step 6

You will now repeat the process on the other side of the rectangle:
Lay out each of the units that you just pressed in the last step with the (A) piece at the top of the rectangle.
Lay one square of the (C) fabric on the bottom of the rectangle right sides together, making sure that the diagonal sewing line is positioned like the diagram here.


## Step 7

Repeat Steps 3 - 5 above for this side, remove the excess triangles, and then press the seam to the outside.
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## Step 8

You want the point of the triangle to be approximately $1 / 4^{\prime \prime}$ in from the edge of the rectangle. That way, when it's sewn to the piece next to it, the point of the triangle lands right at the seam. So don't panic when you sew your diagonal seam, and the point isn't at the edge of the block; that's exactly how it
 should be!

## 

## Step 9

Now you will have four identical "flying geese" units. Take one flying geese unit (FGU) and pair it up with a fabric (C) rectangle. They should both be the same size. Lay them right sides together.


## Step 10

Sew at $1 / 4^{\prime \prime}$ seam allowance, along the long edge of your rectangle unit, with the FGU on top.

Repeat with all four rectangle and FGU using the chain piecing method.


## Step 11

Snip units apart.
Press the seam allowance toward the plain rectangle.
This will help the block lay flat.


## Step 12

Now you will have four identical units that will be sewn together to make the completed flying geese pinwheel block. Lay the units out, making the pinwheel design by positioning the blocks around a center point.


## Step 12

Pair the units up as show here and sew them at $1 / 4^{\prime \prime}$ seam allowance.


## Step 13

Once both pairs are sewn together, press the seam allowances towards the large triangle from fabric B. This pressing approach ensures the seams in the middle will be going in opposite directions, meaning a flatter finished block.

## Step 11

Now all you have left is the final center seam. Match the pieces rights sides together at the center seam, and use one pin to hold the center of the blocks in place. Sew along the final seam maintaining your accurate $1 / 4^{\prime \prime}$ seam allowance. Don't forget to remove the pin at the center line before sewing through the center of the block. Press the seam to one side - either one, it doesn't matter.

## Your Quilt Top is Complete!

## CHOOSE YOUR BINDING

Before you quilt your project, you will need to decide which binding technique you will use, as they both require different preparation before you do the quilting.
The binding is the border that runs around the outside edge and binds all three layers

Self-Binding: the backing fabric from the project is brought up around the edge of the quilt.

Pros: - You use the backing fabric from the project, cut it a bit larger than the quilt top. This can be pretty quick and efficient.

Cons: - You may not have enough fabric around the edge of your finished project to use as binding.

- You must use the same fabric that you used to back your project, and it may not look pleasing on the front of the project.
- It is only a single layer of fabric wrapping around the edge of the quilt, rather than 2 layers

French Binding: a separate fabric is doubled over and wrapped around the edge of the quilt.

Pros: - You can use another fabric in your project, and who doesn't like more options!

- Two layers of fabric wrap around the edge of the quilt so it is more durable.
- Multiple fabrics can be pieced together to make the binding if you don't have enough of a single fabric.

Cons: - More time consuming as you will cut additional strips of fabric, and piece them together before you can sew them onto the finished quilt.

- There is a visible line of stitching just inside the binding. To avoid this you can do some hand sewing to attach the binding to the back of your quilting project.


## BASTING

## Step 1

First, you'll need to cut the batting and the backing fabric. This is done differently for each binding method.

## For Self-Binding:

Cut your batting the same size as the quilt block:
Your completed block should measure approximately $12 \frac{1}{2} 2^{\prime \prime}$ square, if you were pretty accurate with your piecing. Place block directly on top of the batting and cut around the outside of the block. Be very careful if you're not a confident cutter that you do NOT cut into your quilt block. We recommend that you always have the ruler over the finished block so you can't cut into it when trimming down the batting.
Place the quilt block on top of the backing fabric and add an additional $11 / 2^{\prime \prime}$ to the width of the backing fabric on all sides of the block. This will result in a square that is cut at approximately $15 \frac{1122^{\prime \prime}}{}$.

## For French Binding:

Cut your backing fabric and batting approximately $1^{\prime \prime}$ larger than the finished quilt top. For larger quilt projects, you'll want to increase this to about $3^{\prime \prime}$, but for small projects, $1^{\prime \prime}$ should suffice.

## Step 2

Now you'll need to layer all three pieces to make your "quilt sandwich".
Place the backing fabric with the wrong side facing up.
Now center the batting square on top of the backing fabric. There is no right or wrong side of the batting.
Finally, center your quilt block directly on top of the batting square, with the right side facing up.

## Step 4

To keep your sandwich secure while you are quilting all 3 layers together, we "baste" the quilt with safety pins. Start with a pin at the center of the block, moving outwards as you pin. Each pin should be approximately a hand width apart. (Don't baste it on a carpet - trust us, you'll end up pinning the carpet and your quilt.
And be careful if basting on a wood surface, the pins can scratch).

## STRAIGHT LINE QUILTING

## TIP -Use a Fresh Needle

## Step 1

Attach your walking foot (aka even feed foot) to your machine.
To start any quilting project, you'll always want to bring the bottom thread up to the top of the project. By doing this, you'll minimize the chances of having a little mess of threads forming on the back of your project. To do this:

- Hang onto the thread running through the needle - you should have a tail a few inches long, so it's easy to hold even when turning the fly wheel on the machine.
- Put needle in the approximate location that you would like to begin quilting.
- Drop the presser foot.
- Use the hand wheel to complete one single stitch: drop the needle down into the fabric and back up to the top of the stitch.
- Lift the presser foot.
- Gently tug on the top thread and it should pull the bottom thread to the top of the project.

Now onto the Quilting...

## Step 2

For this project we use a technique called "stitch in the ditch". You will sew along each seam line of the block. It's easier to follow the seam line, but be approximately 1 mm to the inside or outside of the seam than to be right in the seam line. Go as slow as necessary to feel like you're in control of the project.
Start and finish each line of stitching at the edge of the quilt - this way you never need to backtack!
The goal is to sew in as many long continuous lines as possible, always stopping with the needle in the down position which will help to minimize any shifting of your project.
$W \cap-$


## Straight Line Quilting is Complete!

## FREE MOTION QUILTING

## TIP -Use a Fresh Needle

## Step 1

Attach your free motion foot (aka darning foot) to your machine.
If this is your first time doing free-motion quilting - practise first! It's tricky. Think of it like the needle is your pen and the fabric is your paper. You'll get the hang of it.

To start any quilting project, you'll always want to bring the bottom thread up to the top of the project. By doing this, you'll minimize the chances of having a little mess of threads forming on the back of your project. To do this:

- Hang onto the thread running through the needle - you should have a tail a few inches long, so it's easy to hold even when turning the fly wheel on the machine.
- Put needle in the approximate location that you would like to begin quilting.
- Drop the presser foot.
- Use the hand wheel to complete one single stitch: drop the needle down into the fabric and back up to the top of the stitch.
- Lift the presser foot.
- Gently tug on the top thread and it should pull the bottom thread to the top of the project.

Now onto the Quilting...

## Step 2

You can start sewing anywhere on the block when free-motion quilting. You simply want to have a general plan so that you know which direction you plan to quilt.

In the project on the video, we chose two different free-motion patterns that were each quilted in the different parts of the block. There are infinite possibilities for designs when free-motion quilting, and you can decide which look is right for the fabric, block and project that you're working on.

## Step 3

When you have completed your design, make a few stitches on top of one another to tie off the project, like a backtack. Then you're able to simply cut the threads flush with the top and bottom of the quilt top.

Start and stop your free-motion designs as frequently as you'd like in your project, but we really prefer doing as much as we can in one continuous line.


Free Motion Quilting is Complete!

## SELF-BINDING

## Step 1

Now that the quilting is done you'll go back to the cutting mat with your block, ruler and rotary cutter. You will trim down the excess fabric around the block to a total of $1^{\prime \prime}$ extra backing fabric all the way around the block.

## Step 2

Once the backing fabric is trimmed down, take the block to the ironing board for the next steps.

Start by folding the corners of the backing fabric in towards the center of the block. The point of the fold should come to the edge of the batting.

Press the fold with the iron.


## Step 3

Now on each of the four sides you will fold the outer edge of the fabric in just under a $1 / 22^{\prime \prime}$ and press flat.

## Step 4

Finally, you will want to fold each edge in again, this time folding it over the edge of the quilt top and batting. Press in place. Because of the fold you made at the corner of the block, you should have a nice mitered edge in each corner. You can pin the binding in place, or use clips.

## Step 5

Sew along the inside edge of the binding to finish it off. If you aren't really confident in your sewing abilities, be sure to use a nice coordinating colour that won't show very easily. If you're feeling a little more brave, you can use a contrasting thread, or even some of those fancy stitches on your machine, that can liven-up the edge of the project!

You can start and stop sewing the binding down at any point along the edge of the quilt, but you will want to remember to bring the bobbin thread up to the top of the project, just like you did before quilting.

Sew as close to the folded edge of the binding as you feel comfortable. Pivot in each of the corners: stop with your needle in the down position, lift the presser foot, rotate your
 project around, lower the foot and keep sewing. Once you've sewn all the way around the edge of the binding, sew a few stitches overlapping where you started sewing, so your stitch line is nice and secure. Trim your threads.

## GREAT QUILT!

## FRENCH BINDING INSTRUCTIONS

## Step 1

Cut your binding strips: They should be $21 / 2^{\prime \prime}$ wide and the length should be enough to go around the entire perimeter of the quilt plus an extra 8 inches. You might have to piece together several strips to achieve the right length (see Steps $2-4$ ). Measure the length after piecing them together.

## Step 2

Sew your binding strips together to make one long strip. Place one strip on top of another, right sides together, at a $90^{\circ}$ angle. Draw a line from one corner to the other as shown. Sew along this line.


## Step 3

Cut off the excess seam allowance $1 / 4^{\prime \prime}$ outside the stitchline.


## Step 4

Press the seam allowance to one side.


Repeat until you have enough binding.

## Step 5

Fold your binding in half lengthwise, wrong sides together, and press.

## Step 6

Starting on the back of the quilt, in the middle of one of the sides, leave a tail before you start sewing of about 6". Align raw edges of binding with the edge of the quilt.

Begin sewing approximately $2^{\prime \prime}$ up from the bottom corner of the quilt. Stitch $1 / 4^{\prime \prime}$ in from the edge of the quilt top. (You can use your $1 / 4^{\prime \prime}$ seaming foot, sticky-notes, or painters tape here. Stop $1 / 4^{\prime \prime}$ from the bottom of the quilt when approaching a corner, lower your needle, pivot toward the corner and sew off the corner of the quilt. This helps provide a bit of structure when folding the binding over at the corner.


## Step 7

Before sewing the binding on in the other direction, you'll need to fold it once at a $90^{\circ}$ angle away from the quilt and then back on top of itself toward the next edge of the quilt. Then from $1 / 4^{\prime \prime}$ in from both edges, continue sewing along the second side of the quilt with a backtack.


## Step 8

Then from $1 / 4^{\prime \prime}$ in from both edges, continue sewing along the second side of the quilt. Backtack at the beginning.


## Step 9

Continue around until you reach the side you began on. Sew down from the top about 2 " and stop here.


## Step 10

Now you'll attach the two tails together:
The first end should overlap the second end by the width of your binding - $21 / 2^{\prime \prime}$.


## Step 11

Place the strips right sides together at a $90^{\circ}$ angle. Sew on the diagonal as you did to piece the binding together. (You may need to watch this part a few times to get it down - that's okay!).


## Step 12

Once the two ends have been sewn together, trim the excess seam allowance.


## Step 13

Finish the seam that attaches the binding to the quilt. Overlap where you had stopped and started.


## Step 14

Now we fold the binding over to the front of the quilt, and sew it down:

Your top thread will show on the binding, and the bobbin thread will show on the backing of the quilt, so choose threads accordingly.

Start sewing in the middle of one side, not at the corners. Fold the binding around the outside edge of the quilt and pull firmly toward the front of the quilt. Sew about $1 / 8^{\prime \prime}$ in from the inside edge of the binding.


## Step 15

Mitre the corners:
Stop 2" from the corner. Fold up the bottom binding and use a screwdriver or small pair of scissors to help you tuck in the fold at the corner. Then the side you are currently sewing folds down on top. Pivot at the corners. When you reach the point where you started, overlap your first stitches to secure the line.


## Step 15

When you reach the point where you started, overlap your first stitches to secure the line.

## GREAT QUILT!



## GLOSSARY

Fat Quarter A fat quarter is a quarter-yard of fabric, except its cut differently. Usually if you get a quarter yard cut off the bolt of fabric, it's $9^{\prime \prime} \times$ the width of the fabric (about 44"). But a Fat quarter is $18^{\prime \prime} \times$ half the width of the fabric (about $22^{\prime \prime}$ ).

Fat quarters are a convenient and usable size for quilters to subdivide into various sizes. This cut is specific to quilting only quilting boutiques will cut you a fat quarter.

Block The block is the unit that is repeated to create a full quilt.
In our case, the finished block is 12 " square and the unfinished block is $12^{1 / 2} 2^{\prime \prime}$ square.

Chain A sewing technique whereby you feed one set of pieces into Piecing

Basting Basting is a loose stitch done by hand or machine, used to hold pieces together temporarily and it is easy to remove if necessary.

In quilting we talk about pin basting, which is a quick way to hold quilt layers together temporarily while sewing.

Backstitch / This is an extra 3 to 5 stitches on top of your line of stitching, Backtack at the beginning and end to secure it. It is done by sewing backwards. Your backstitch only needs to be 3 to 5 stitches or about $1 / 2$ " long.

