

Pattern of the Month

April 2015

For Members of the MQG



MODERN QUILT GUILD



Boids

by Gillian Smith
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The Modern Quilt Guild's mission is to support and encourage the growth and development of modern quilting through art, education and community. www.modernquiltguild.com

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{codingCrafter}



BOIDS

finishes at 42" x 54"

This quilt comes together easily, with different scale triangles emerging from a specific arrangement of half-rectangle triangles. The pattern is appropriate for advanced beginners. Having a design wall or a flat space to lay out the blocks before piecing is very helpful. The hardest part of this pattern is keeping track of the individual blocks.

Boids is named for an artificial life program of the same name, made in 1987 by Craig Reynolds, that simulates triangular “birds” as they flock together.

Materials

I made this quilt using all solids, but it would be a great way to use up a lot of medium size scraps, instead! If using yardage, you will need the following amounts. If using scraps, refer to the tables below for how many individual pieces you will need. This quilt will look best with solids or small prints, so that the larger triangles don't get broken up by noticeable seams.

In addition to these fabric requirements, it will also be helpful if you have:

- a ruler, at least 3 1/2" x 6 1/2", that has clear marks every 1/4", or template plastic
- template plastic or cardboard
- pins
- a straight edge and rotary cutter
- pen, pencil, or other marking tool (can be permanent)

Fabric	Amount
Fabric A (light pink)	1 yard
Fabric B (medium pink)	1 1/4 yards
Fabric C (medium purple)	1 1/4 yards
Fabric D (dark purple)	1 1/4 yards
Fabric E (red)	1/4 yard
Fabric F (gold)	1/4 yard
Fabric G (blue)	1/4 yard
Batting	48" x 60" (3" overhang)
Backing	50" x 62" (4" overhang)
Binding	210" continuous 2 1/4"-wide strip 24" x 24" square for continuous bias binding or 1 1/2 yard for 2 1/4" strips cut on the grain

Fabrics E, F, and G can be fat quarters instead of normal 1/4 yards. Cutting instructions are written as though there is a normal 1/4 yard cut.

The sample quilt uses all Moda Bella Solids: Fabric A - Parfait Pink, Fabric B - Peony, Fabric C - Violet, Fabric D - Boysenberry, Fabric E - Raspberry, Fabric F - Amelia Apricot, Fabric G - Cobalt

Cutting

The quilt is assembled from half-rectangle triangles (HRTs) and solid rectangles. Like half square triangles, HRTs can be made by sewing together rectangles along either side of a marked diagonal and then cutting down the middle. I prefer to make my HRT rectangles bigger than the final product, then trim them down to the final desired size. Cut strips that are each **7 1/2" wide**, then sub-cut the strips to come to the desired number of **4 1/2" x 7 1/2"** rectangles.

Fabric	Number of 7 1/2" strips	Total Number of Rectangles
A (light pink)	3	23
B (medium pink)	4	25
C (medium purple)	4	27
D (dark purple)	3	21
E (red)	1	7
F (gold)	1	7
G (blue)	1	8

You will also need to cut **3 1/2" x 6 1/2"** rectangles from fabrics A - D:

Fabric	Number of 6 1/2" strips	Total Number of Rectangles
A (light pink)	1	3
B (medium pink)	1	10
C (medium purple)	1	8
D (dark purple)	1	4

Piecing

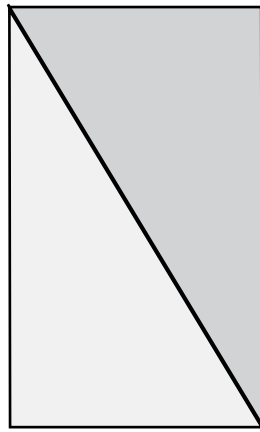
Half-Rectangle Triangles

This pattern uses a modified version of the Modern Quilt Guild's half-rectangle triangle tutorial. Instructions are included below, and fabric amounts are calculated based on this method.

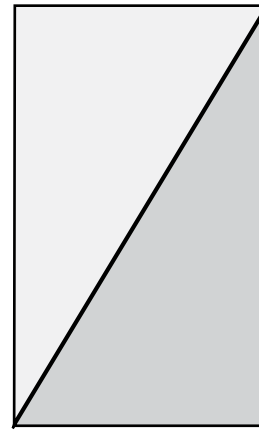
All HRTs will be **3 1/2" wide x 6 1/2" tall** (finished size 3" x 6").*

There are two kinds of HRT: "downhill" triangles, and "uphill" triangles. Downhill triangles have a diagonal that goes from top-left to bottom-right. Uphill triangles have a diagonal that goes from bottom-left to top-right.

* <https://themodernquiltguild.wordpress.com/2012/01/08/100-days-week-of-shapes-tutorial/>



downhill triangle



uphill triangle

You will be creating a different number of downhill and uphill triangles for each combination of fabric. The tables below show how many of each triangle you will need to make.

Number of Downhill Triangles

	A	B	C	D
Fabric A				
Fabric B	6			
Fabric C	7	8		
Fabric D	6	4	4	
Fabric E	0	1	2	2
Fabric F	1	1	1	2
Fabric G	1	2	2	1

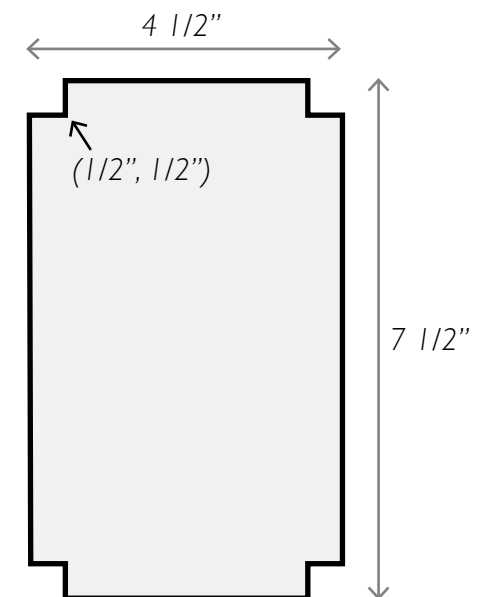
Number of Uphill Triangles

	A	B	C	D
Fabric A				
Fabric B	5			
Fabric C	6	10		
Fabric D	5	4	5	
Fabric E	1	1	1	2
Fabric F	0	1	2	2
Fabric G	1	2	1	1

Piecing HRTs

Each pair of rectangles will make **two** HRTs of the same orientation. Since for some combinations of fabric you need an odd number of HRTs, you will end up with extra scrap HRTs by following this method. I used some of the scrap HRTs in the back of the quilt.

This step of piecing will go faster if you have a template available to mark the corners of each rectangle. Using either template plastic or cardstock, cut out a rectangle $4\frac{1}{2}'' \times 7\frac{1}{2}''$. Measure $\frac{1}{2}''$ inside each corner, and cut out the corners. You will be using this template to mark $\frac{1}{2}''$ corners on the fabric.



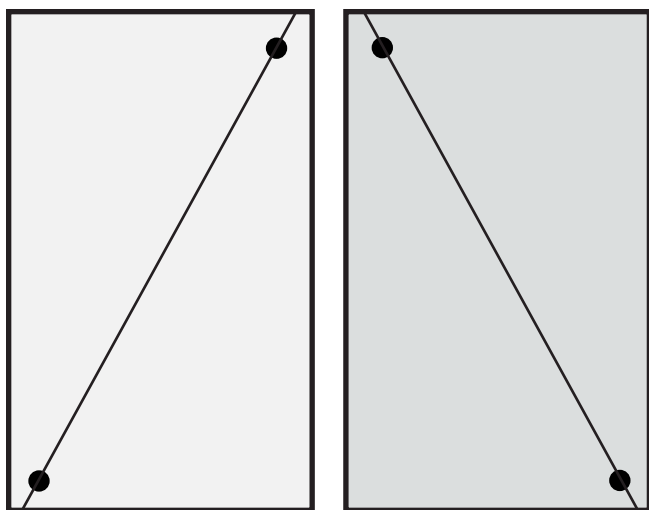
$4\frac{1}{2}'' \times 7\frac{1}{2}''$ template with $\frac{1}{2}''$ corners notched out

Lay out two 4 1/2" x 7 1/2" rectangles next to each other, with the long side vertical. Flip the rectangle on the left so that it is laying wrong-side up.

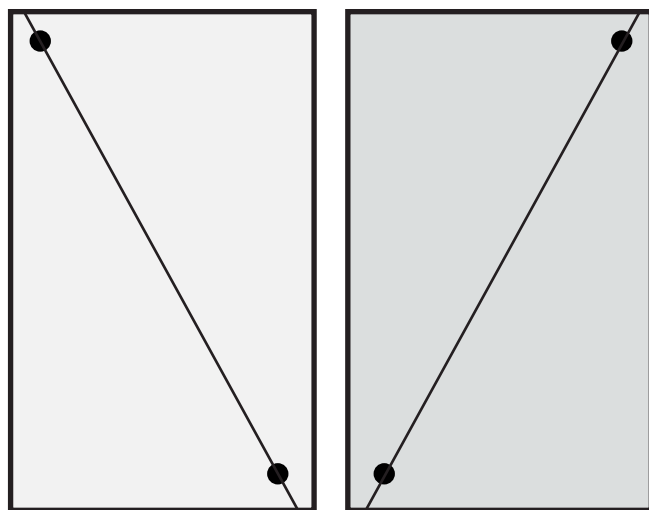
Use your template to mark 1/2" in from the corners:

- For downhill triangles, mark the bottom-left and top-right corners of the fabric on the left, and the top-left and bottom-right corners of the fabric on the right.
- For uphill triangles, mark the top-left and bottom-right corners of the fabric on the left, and the bottom-left and top-right corners of the fabric on the right.

Use your marker to connect the dots and draw a diagonal line across both pieces of fabric. Using fabric pen or other permanent marker is fine, as this mark will be inside the seam allowance.

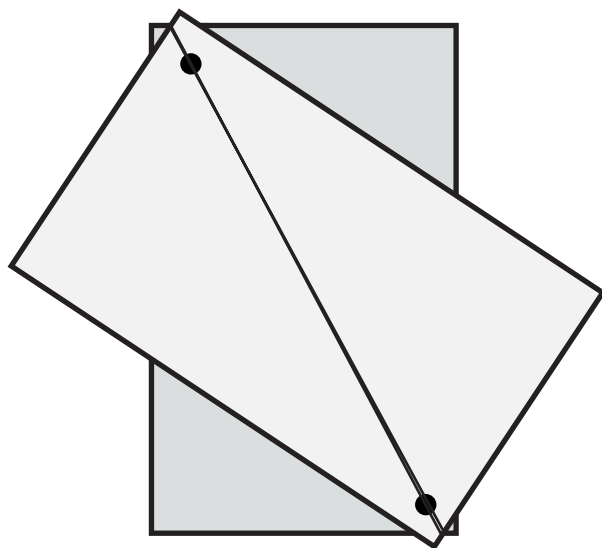


downhill triangle

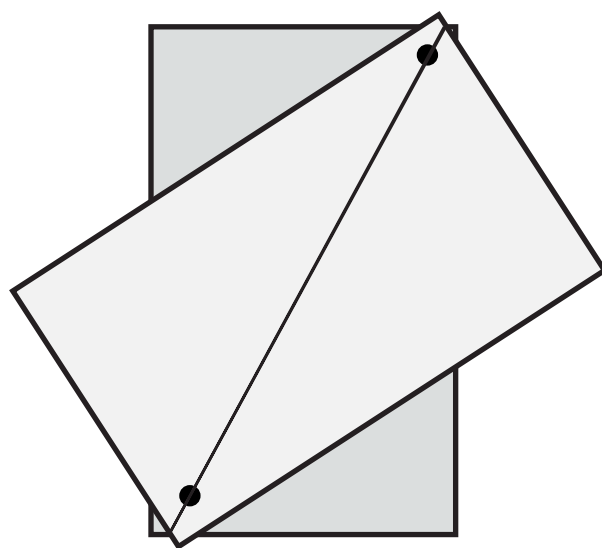


uphill triangle

Match up the diagonal lines and pin the fabric together. For downhill triangles, rotate the face-down, leftmost fabric to the left to have the lines to match up. For uphill triangles, rotate the leftmost fabric to the right.

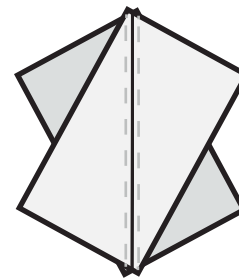


downhill triangle



uphill triangle

Using the drawn diagonal line as a guide, sew $\frac{1}{4}$ " to the left and right of the line, making two seams. Cut down the diagonal line to get two blocks, press the seams open.

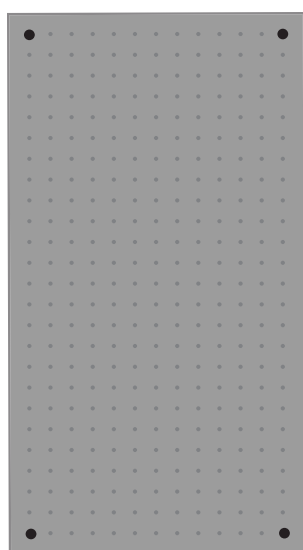


sew seams $\frac{1}{4}$ " from each side of center line

Trimming HRTs

Each HRT block will be larger than it needs to be for the full quilt; they each need to be trimmed down to **$3\frac{1}{2}$ " x $6\frac{1}{2}$ "**.

If you have a ruler that has $\frac{1}{4}$ " increments clearly marked in both directions, it will be perfect for this task. Otherwise, you could take another piece of template plastic, cut it to $3\frac{1}{2}$ " x $6\frac{1}{2}$ ", and mark its surface with dots at a $\frac{1}{4}$ " distance from the corners.



3 $\frac{1}{2}$ " x 6 $\frac{1}{2}$ " ruler marked for a $\frac{1}{4}$ " grid, the black dots mark the $\frac{1}{4}$ " point from each corner

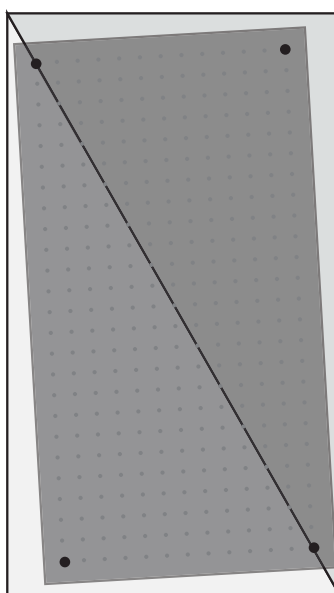
Position the ruler over the block at an angle, so that the markers for $\frac{1}{4}$ " from the appropriate corners are positioned directly on top of the diagonal line. Do not cut directly from corner to corner! Taking these steps will make sure that you have a $\frac{1}{4}$ " seam allowance and that the points will line up.

- For a downhill triangle, this means that the ($3\frac{1}{4}$ ", $\frac{1}{4}$ ") mark will be at the top-left over the seam, and the ($\frac{1}{4}$ ", $6\frac{1}{4}$ ") mark will be at the bottom-right over the seam.
- For an uphill triangle, this means that the ($\frac{1}{4}$ ", $\frac{1}{4}$ ") mark will be at the top-right over the seam, and the ($3\frac{1}{4}$ ", $6\frac{1}{4}$ ") mark will be at the bottom-left over the seam.

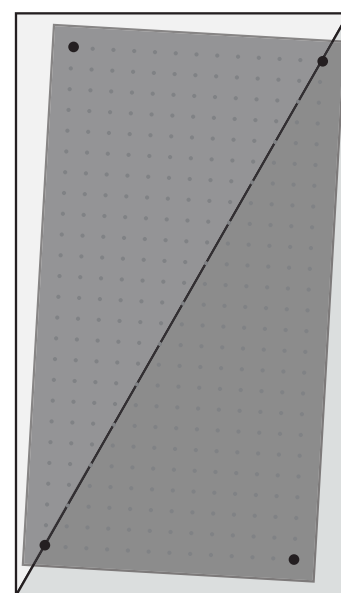
Trim the right side and top of the block.

Rotate the block and align the ruler so that the $3\frac{1}{2}$ " line is along the left edge, and the $6\frac{1}{2}$ " line is along the bottom edge. Again, the $\frac{1}{4}$ " guides should be intersecting the diagonal seam. Trim.

Perform these steps for each HRT, until you have the required number of HRTs for each fabric pair.



downhill triangle



uphill triangle

Assembly

At this stage, you should have the following blocks completed, each **3 1/2" x 6 1/2"**:

Solid Rectangles

Fabric A (light pink)	3
Fabric B (medium pink)	10
Fabric C (medium purple)	8
Fabric D (dark purple)	4

Downhill Triangles

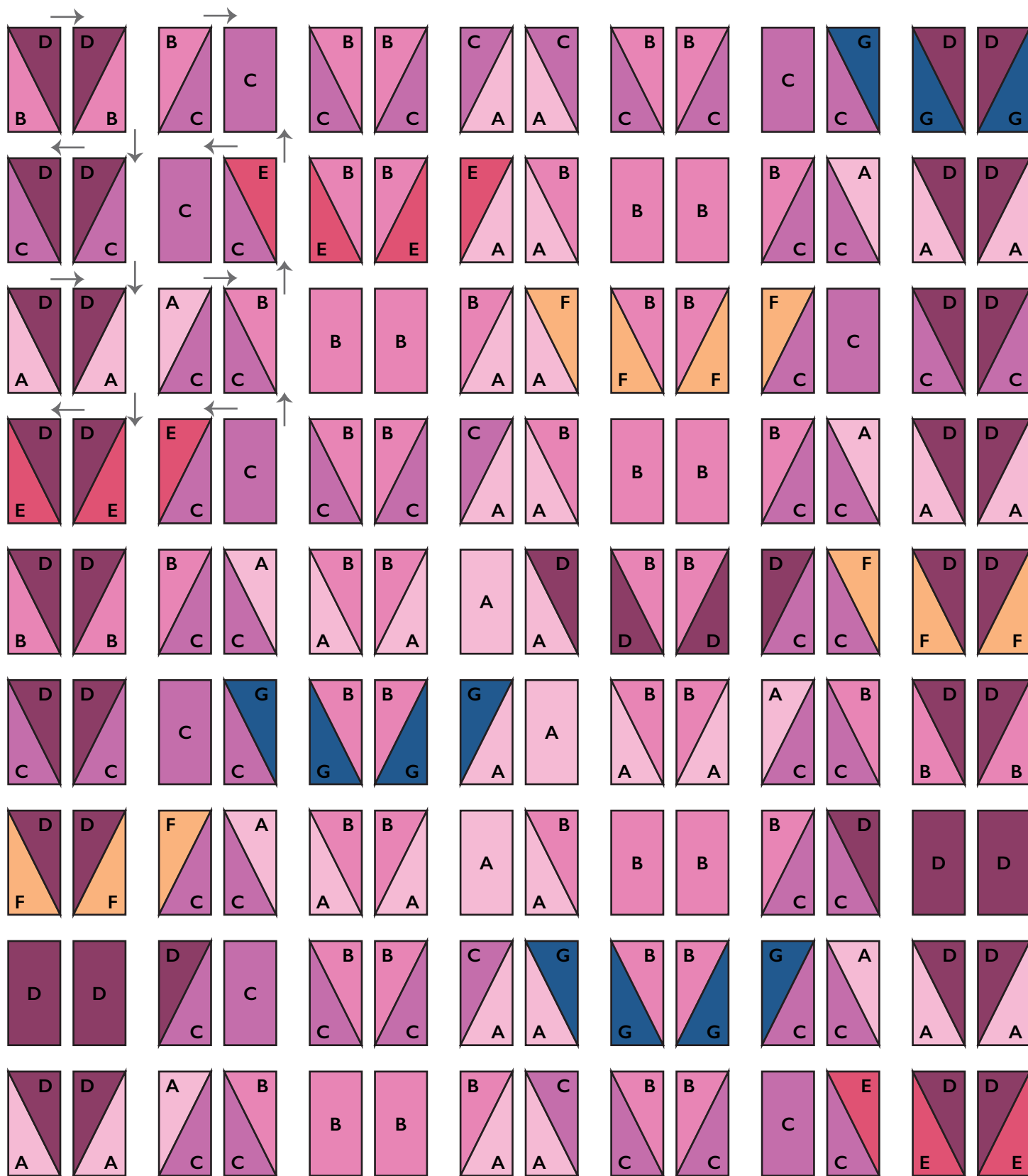
A-B (light pink-medium pink)	6
A-C (light pink-medium purple)	7
A-D (light pink-dark purple)	6
A-E (light pink-red)	0
A-F (light pink-gold)	1
A-G (light pink-blue)	1
B-C (medium pink-medium purple)	8
B-D (medium pink-dark purple)	4
B-E (medium pink-red)	1
B-F (medium pink-gold)	1
B-G (medium pink-blue)	2
C-D (medium purple-dark purple)	4
C-E (medium purple-red)	2
C-F (medium purple-gold)	1
C-G (medium purple-blue)	2
D-E (dark purple-red)	2
D-F (dark purple-gold)	2
D-G (dark purple-blue)	1

Uphill Triangles

A-B (light pink-medium pink)	5
A-C (light pink-medium purple)	6
A-D (light pink-dark purple)	5
A-E (light pink-red)	1
A-F (light pink-gold)	0
A-G (light pink-blue)	1
B-C (medium pink-medium purple)	10
B-D (medium pink-dark purple)	4
B-E (medium pink-red)	1
B-F (medium pink-gold)	1
B-G (medium pink-blue)	2
C-D (medium purple-dark purple)	5
C-E (medium purple-red)	1
C-F (medium purple-gold)	2
C-G (medium purple-blue)	1
D-E (dark purple-red)	2
D-F (dark purple-gold)	2
D-G (dark purple-blue)	1

Quilt top assembly follows the diagram on the following page. Begin by piecing together pairs of blocks to form V shapes. Piece the pairs into columns. Piece columns together to form the top.

Nesting seams will make it easier to match up the points. Alternate the direction you press your seams for each of the paired-block V shapes. Press the horizontal seam between each V away from the bulk: if the V is pointing downwards, then press down; if the V is pointing upwards, then press up. Arrows in the top left corner of the diagram illustrate this. Follow these pressing instructions for the entire quilt top.



Quilt assembly diagram. Piece pairs of blocks to form V shapes, then piece the columns.
Assemble columns into quilt top. Nest seams.

Finishing

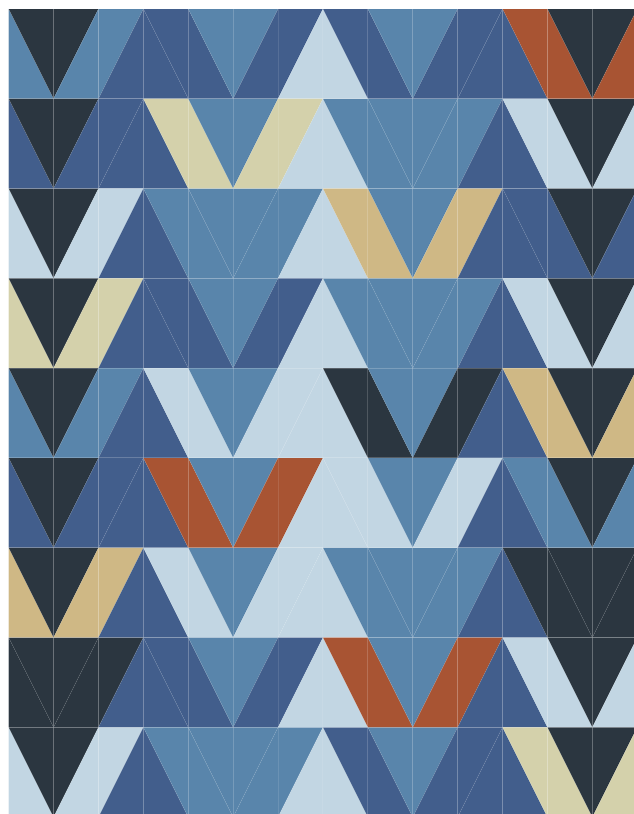
To finish the quilt, piece together a back, optionally including strips of the scrap HRTs from the front. Baste and quilt as desired. The quilt shown on the cover was quilted with straight lines zigzagging across the quilt that are spaced 2" from each other.

Bind, label, and enjoy your quilt!

Variant

The size of the quilt can scale easily by changing the size of each HRT block. When making different size HRTs, cut the rectangles to approximately 1" larger in each direction than the desired size of the (unfinished) trimmed HRT.

This is a quilt that feels very different in different colorways. Try cooler blues for a calming effect.



Fabric A: Kona Dusty Blue
Fabric B: Kona Delft
Fabric C: Kona Cadet
Fabric D: Kona Charcoal
Fabric E: Kona Khaki
Fabric F: Kona Scone
Fabric G: Kona Spice



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