

# Tutorial

## Ohio Star Square Canes

### Introduction

The Ohio Star is a traditional quilt block and the official block for the state of Ohio! This is an intermediate level cane where you can learn basic extruding and reducing techniques for square canes.

I recommend using firmer clays such as Fimo Classic vs. Sculpey3, which is too soft. If you choose to use softer clay, you can leach it to make it firmer by rolling out sheets of clay with the pasta machine, then layering the clay in between sheets of plain paper. The paper will pull out plasticizers and make the clay firmer. Test the clay sheets often until it reaches a consistency that you like.

For the tutorial, I have adapted the Ohio Star design for polymer clay using millifiore techniques.

### Supplies Needed

Squares and triangles are used to create this pattern.

- 2 colors of clay - 1 dark, 1 light
- Tissue blade
- Clay gun (Kemper or Sculpey clay gun recommended)
- Quilted in Clay discs in 2 sizes:
- Clay gun pusher
- Ruler
- Acrylic rods or balsa wood strips in different sizes
- Acrylic brayer or other rolling device

3/8" square



1/4" 90° triangle disc



### Step-by-Step Instructions

1. Condition all the clay in your favorite manner.
2. With a clay gun, extrude 21 rods:

**4 - Squares light**

**1 - square dark**

**8 - Triangles light**

**8 - Triangles dark**

The length of your 21 rods will vary with the type of clay gun you use. You can make these any length you want, but the longer the extruded rods, the larger the finished cane. Since these lengths will be divided many times, I usually start with rods no shorter than 3". To determine what the longest length will be, use the 3/8" square disk and extrude one barrel of clay.

For example, if using the Kemper or Sculpey clay guns, one barrel of clay will extrude a  $\frac{3}{8}$ " square about  $4\frac{1}{2}$ " long. Using this length for all extrusions will give you a finished cane size, before reducing, of  $4\frac{1}{2}$ " long by  $1\frac{1}{4}$ " square.

3. When looking at the end of the triangular shaped rods you will see that one side is longer than the other 2. Using one triangular rod in each color, place them together with the shorter edges touching. This will give you a larger triangle rod that is  $\frac{1}{2}$  light and  $\frac{1}{2}$  dark with the line up and down the center. . Press firmly to ensure there are no air pockets, but not so hard as to distort them. Repeat this process with the rest of your triangles then set them aside.

4. Using 2 of your assembled triangles, place them together to form a square. When putting the triangles together, ensure your center lines match all along the length. Your square when finished will look like this. 

5. Now we start building the first part of the pattern. Keep your drawing close by and refer to it often! This pattern section has 3 rows:

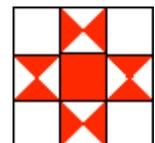
Row 1: Using 2 of the light squares and one of the 2 color squares, line them up into a row to look like this, again ensuring that the pieces are firmly pressed together:



Row 2: 

Row 3: 

6. Stack your rows together so the lines match up along the length of the block. Your cane now looks like this:



7. Now we begin to reduce the square canes. By using acrylic rods, the design inside the cane will remain crisp no matter how small you make it.

a. Start to reduce the cane by rolling your brayer along one long side, holding the end securely but not too tightly, and lifting the end off the table while gently pulling. Turn the cane 90 degrees and repeat the process until all 4 sides are completed.

b. Flip the cane end-to-end, and repeat the process. In this way, you will reduce all sides equally. Reduce slowly to lessen the amount of distortion. Continue working to keep the cane even length-wise until the diameter measures about  $1\frac{1}{4}$ " square.

c. Place the 1" acrylic rods on either side of the cane without touching the clay as you roll your brayer along the top with the cane in between to ensure that the cane will be even in length and circumference.

d. After you are certain that your cane is square and 1" on all sides, it's time to change to the next smaller rod size - 3/4". Repeat the same techniques, and continue until all sides are about 5/8", always squaring it up as you go.

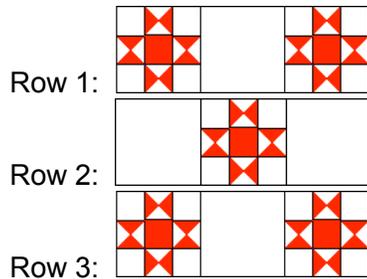
Your canes are going to get long! If they become too much to handle, simply cut them in half and reduce each one separately. Once all your canes are made and reduced, you're ready to start slicing!

### Optional Steps

To make this a more complex design, you can now add to it. This is going to make a lot of cane!

8. Continue reducing your cane to 3/8" and cut your long piece into 5 equal lengths.

9. Using your 3/8 square disc, extrude 4 rods of your light color then reassemble your cane.



**Your finished Ohio Star cane will look like this!**

