

Color Blending

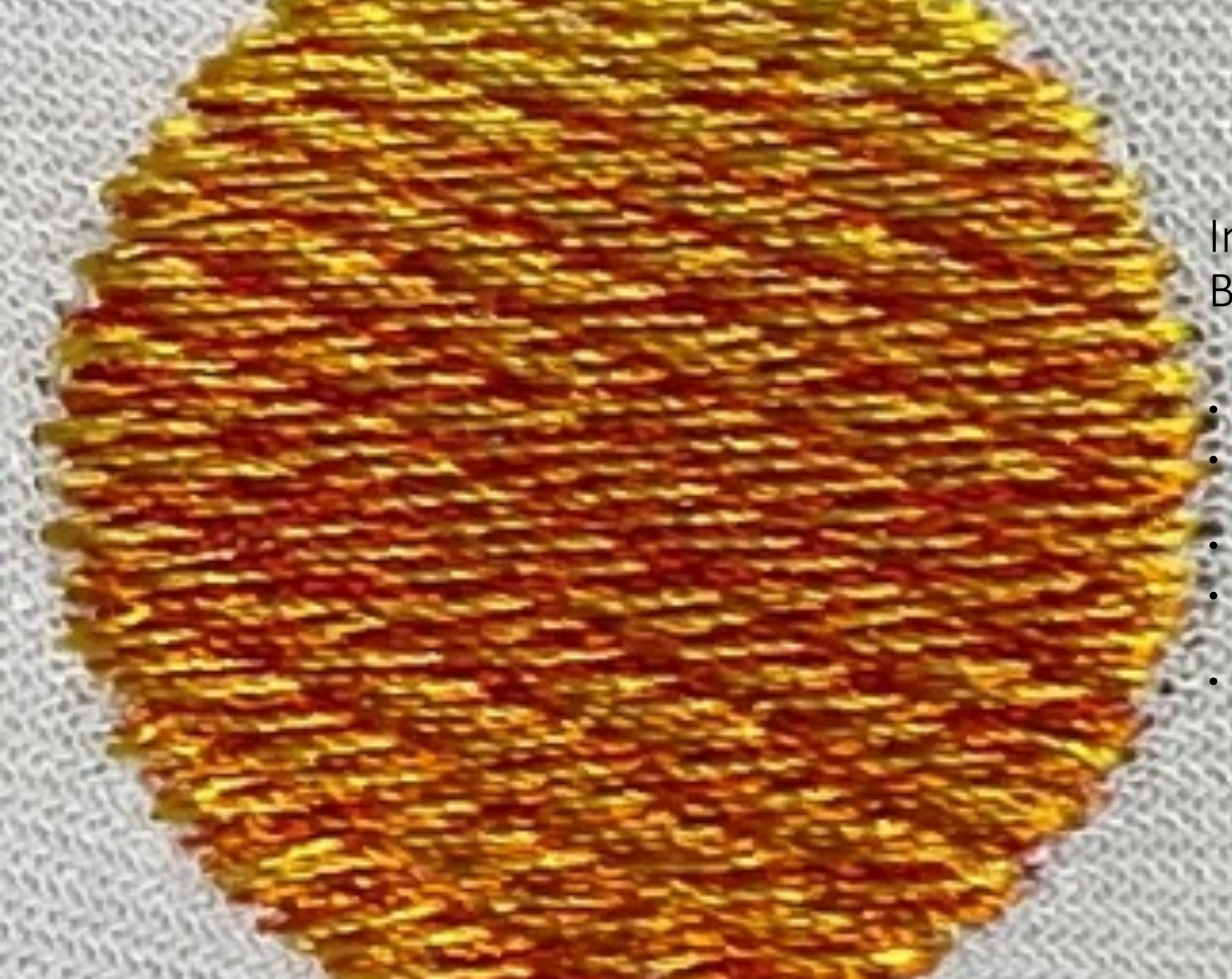
FTCU Masterclass by D.J.
Anderson

**DEEP
DIVE**

Topics

- Intro to Color Blending Basics
- 3 Basic Types of Color Blends & How Thread Blends
- Creating Color Blends & Keys to Success
- Color Blending Test & Samples
- 1 Color Bleeds (1 color fill, gradient, wave fill)
- 2 Color Bleeds & Blends (fill, gradient, wave gradient)
- 3 Color Bleeds & Blends (fill, gradient, wave gradient)
- Color Blending Presets
- Color Blending Templates
- Practice Lessons





Intro to Color Blending Basics

- Understanding Color
- Understanding how thread blends to create dimension
- Keys to Blending Success
- How to structure color blends and why
- How to create your own Blending Recipes



Understanding Color

- Complementary Colors
 - Primary Colors (Red, Blue, and Yellow)
 - Cannot be made up from other colors
 - Secondary Colors (Orange, Green, and Purple)
 - Can only be created by blending two primary colors in equal amounts
 - Tertiary Colors (Amber, Vermilion, Magenta, violet, chartreuse)
 - Are shades that lie between a primary and secondary color.
- So, to create secondary colors in your blends you will need to know what two colors make up the desired color.
- To get the proper tone of these secondary colors, you will need to know what shades of the primary colors will produce the desired tone.
- This is where a color wheel is especially helpful. It will allow you to see the two shades of primary colors that will give you the tone you desire.



Monochromatic

Complementary

Triadic



Rectangular

Tetradic
(Square)



Analogous

Analogous
Complementary

Split
Complementary



Creating Dimension

- With dimensional objects, it is important to understand how warm colors (reds, oranges, and yellows) and cool colors (blues, greens, and purples) help produce the dimension in an object.
- Use cool colors to shade the object. The areas of a color blend that utilize cool colors will appear to move backward providing depth.
- Warm colors will bring the objects to life and will appear to come forward in the object.
- Tertiary colors, color shades in between a primary and secondary color, will help create a seamless color blend allowing the color blends to look realistic and natural.

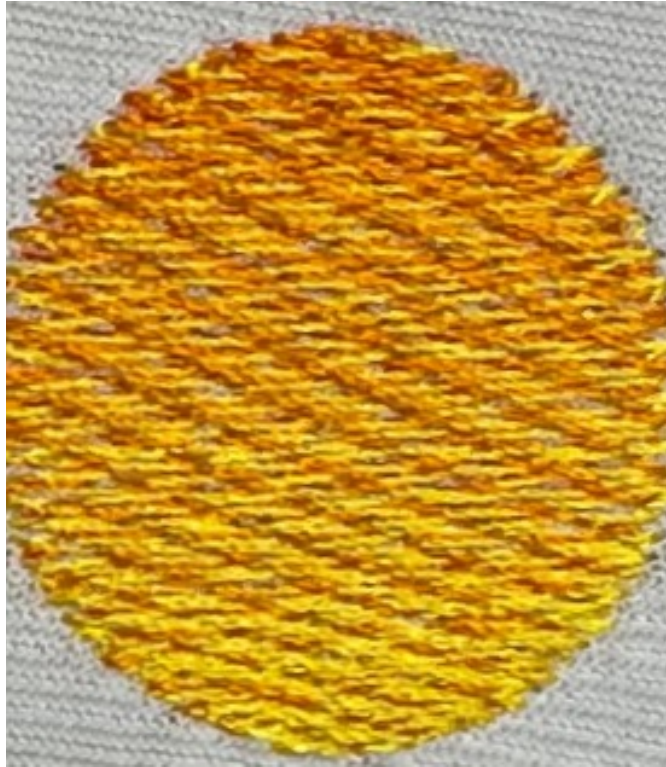
3 Basic Types of Color Blends

- Realistic 3D (has dimension and depth to help make it look lifelike)
- Gradient (gradually blend colors together in a seamless manner)
- Bleeding (combines two or more colors to create a tone)

Realistic 3D



Gradient

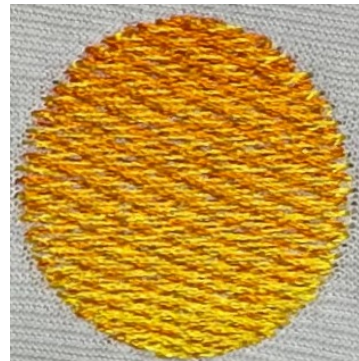
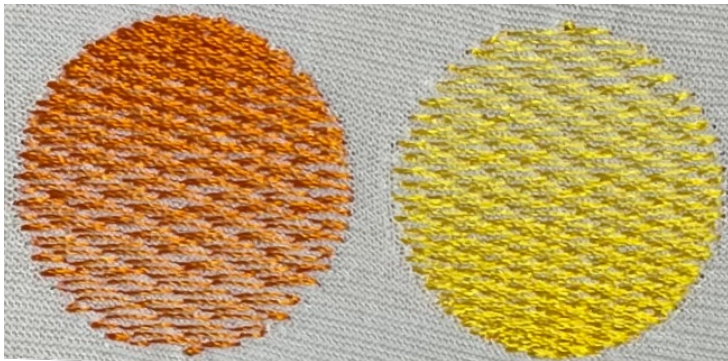


Bleeding



How Thread Blends

- Stitches lay side-by-side when the stitch direction.
 - Even if you stack two fills exactly over the top of each other where top row is on directly on top of the lower fill, they will blend.
- Because stitches need to lay side-by-side, we utilize fill stitches for color blends.
- The best results come from controlling the density, so the colors have room to breath.



Creating Color Blends

- Fortunately, most software programs contain color blending tools to help make it easier to create them.
- However, they only work great for creating two-color bleeds and gradients. They typically don't have automated features to help with realistic 3D blends or radial color blends.
- While it is relatively easy to create these bleeds and blends in the software, the challenge is in getting the desired results stitched out.
- Software programs struggle to provide a good realistic representation of color blends. Basically, what you see on your screen is not what you are going to see stitched out. For this reason, it is a must to stitch out bleed and blend charts.

Keys to Blending Success

- Non-Design Properties
 - Understanding Color
 - Understanding How Colors Blend
- Design Properties
 - Density
 - Stitch Direction
 - Stitch Length
 - Stitch Progression
- Samples/Templates/Presets

Color Blending Test & Samples

Color Blending Test uses the same color horizontally and vertically so you can see how each color blends together on top or bottom. For example, you can see how it looks when Blue is on top of white or when white is on top of the blue. It uses two layers for each row, meaning there is a section that is only 1.2mm dense and there is one that has two layers of 1.2mm density.

Creating Color Blend samples is extremely important. You'll see I provided several templates you can use to create your own.



Color Bleeding

This is when you want to add shading to a color in a defined area. Think of shading on a cheek or shading to create depth in a circle. We are basically bleeding one color into the other in a way that you can see the definition you want without one color overpowering the other.

- Fill Tool
- Gradient Tool
- Wave Gradient Tool

Bleed Fills

- When using a standard fill that you want to bleed with another color, I found that 0.8mm density works the best.
- Make sure to turn off underlay (edge travel if necessary), start and end on opposite ends, stitch direction is the same, etc.



1-Color Gradients

Can be Linear increasing or decreasing, doesn't matter.

- Gradient density: 1.0 (1.2 was too light, 0.8 was too dense)

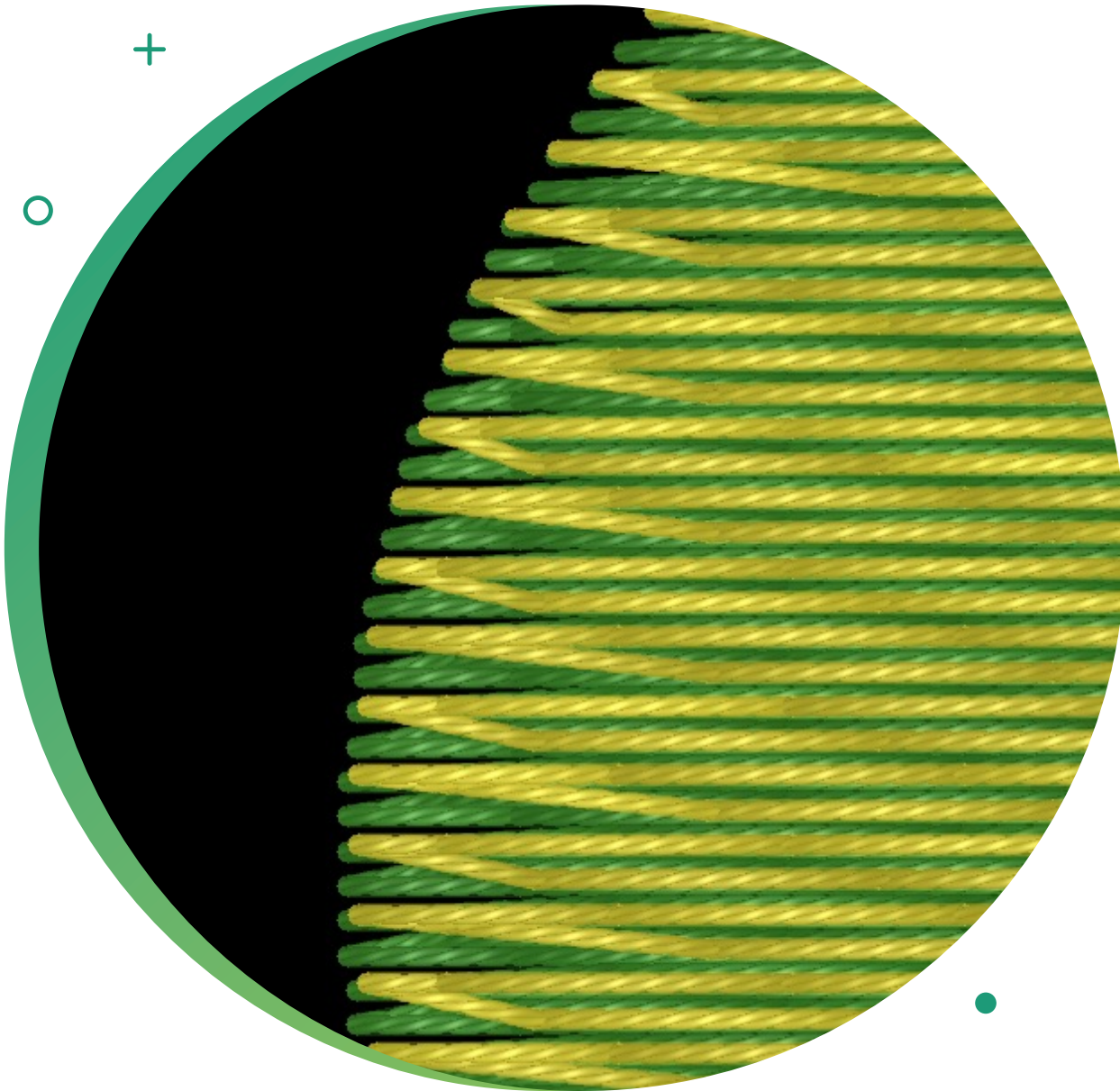
1-Color Wave Blends

Can be Standard Wave, Gradient Linear Increasing Wave, Gradient Linear Decreasing Wave, Gradient Convex Wave, or Gradient Concave wave, doesn't matter.

- Standard Wave Density: 0.8mm
- Gradient Wave Density: 1.0 – 1.2 was worked the best for me

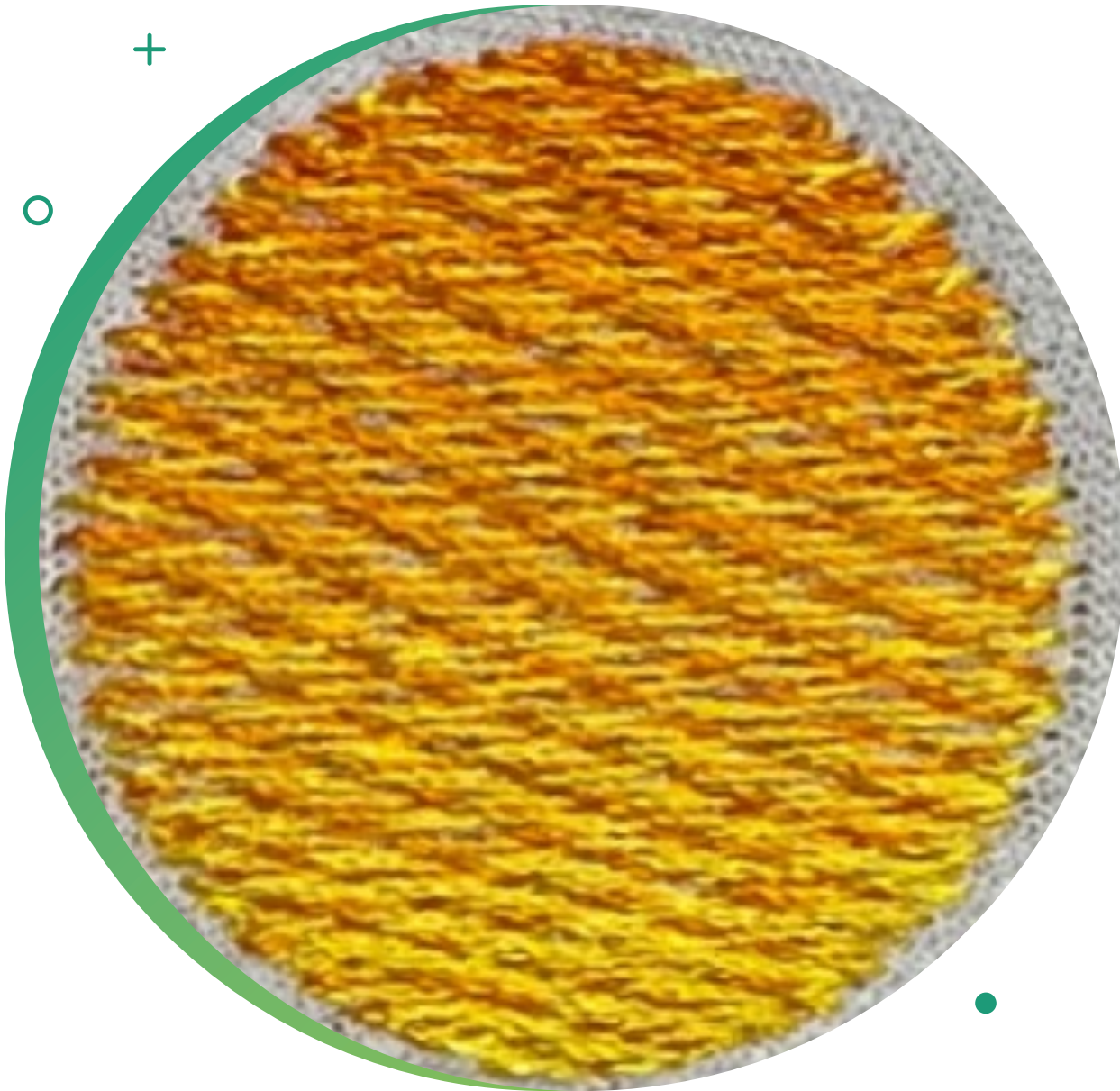
2-Color Bleeds & Blends

- Fill Tool Blends
- Gradient Tool Blends
- Wave Gradient Tool Blends



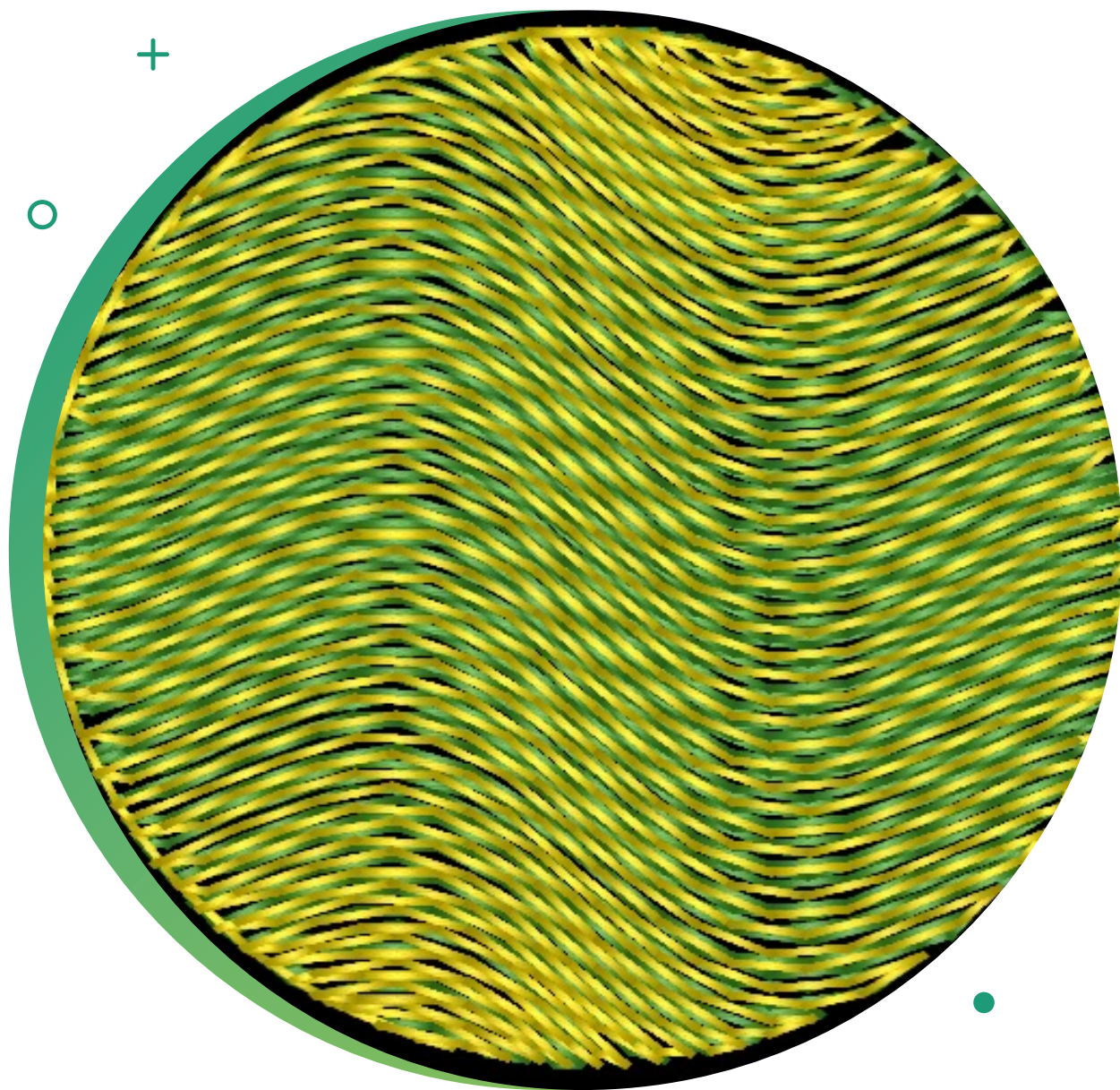
2-Color Fill Bleeds

- When using a standard fill that you want to blend two color together, I found that 0.7mm density for the first layer and 0.8mm density for the second layer works the best.
- Make sure to do the following:
 - Do the darker, more intense color first.
 - Include underlay for the first object only. Turn off underlay for the second layer (edge travel if necessary)
 - Make sure the stitch angle is going the same direction for both objects.
 - start and end on opposite ends, and etc.



2-Color Gradient Blends

- Linear Increasing and Decreasing
- If you are using two colors to create a Linear Increasing/Decreasing color blend, the following is the best settings I've found:
 - Do the Darker color first, however not 100% necessary. Can be Linear increasing or decreasing, doesn't matter.
 - Gradient density: 1.0 (1.2 was too light, 0.8 was too dense)
 - Do the Lighter color second. Can be Linear increasing or decreasing, doesn't matter.
 - Gradient density: 1.0 (1.2 was too light, 0.8 was too dense)

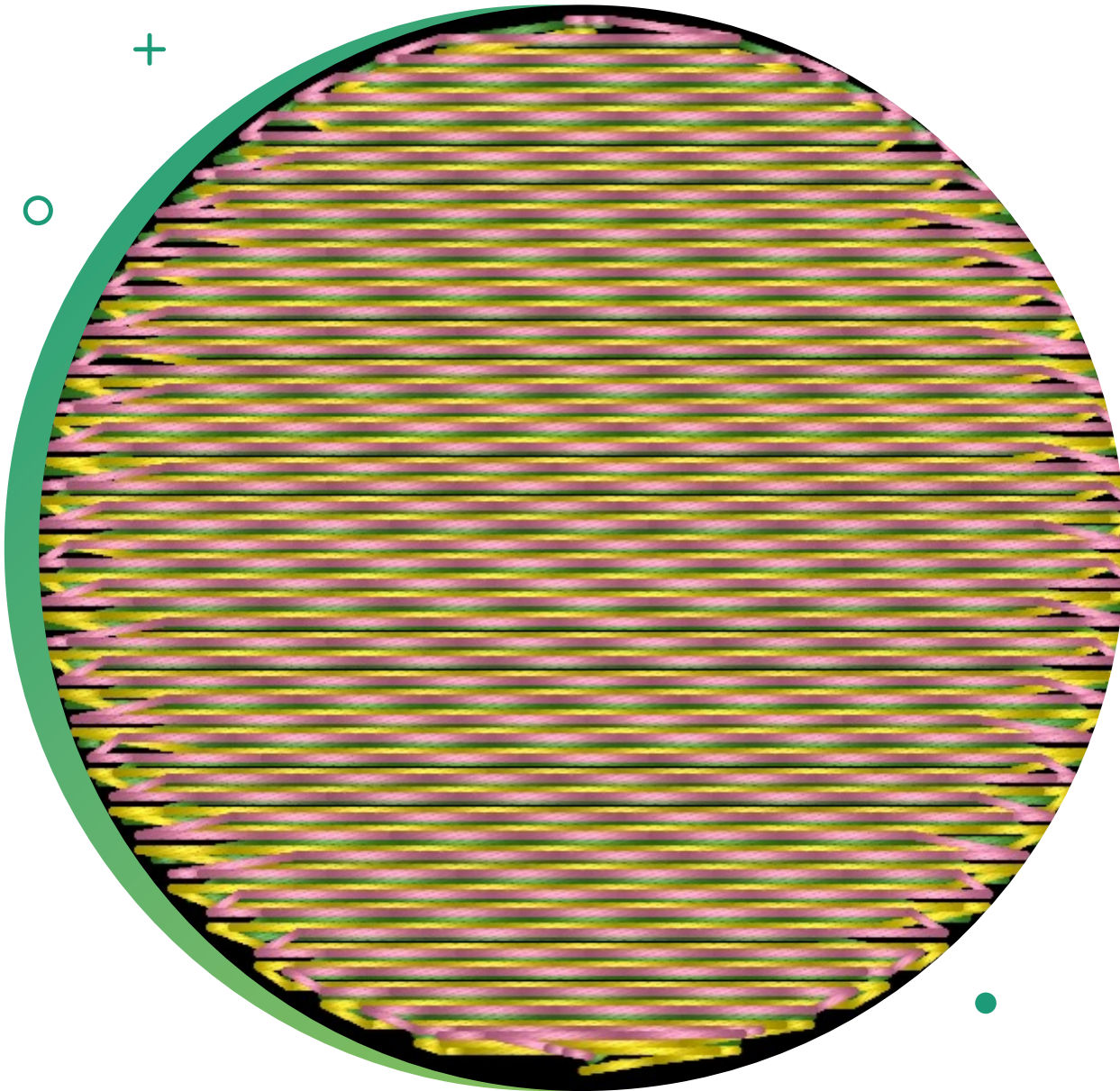


2-Color Wave Gradients

- When using a gradient wave fill that you want to blend two colors together, I found that 0.7mm density for the first layer and 0.8mm density for the second layer, works the best.
- Make sure to do the following:
 - Do the darker, more intense color first.
 - Use only “Edge Travel” for the underlay.
 - Make sure the stitch angle is going the same direction for both objects.
 - start and end on opposite ends.

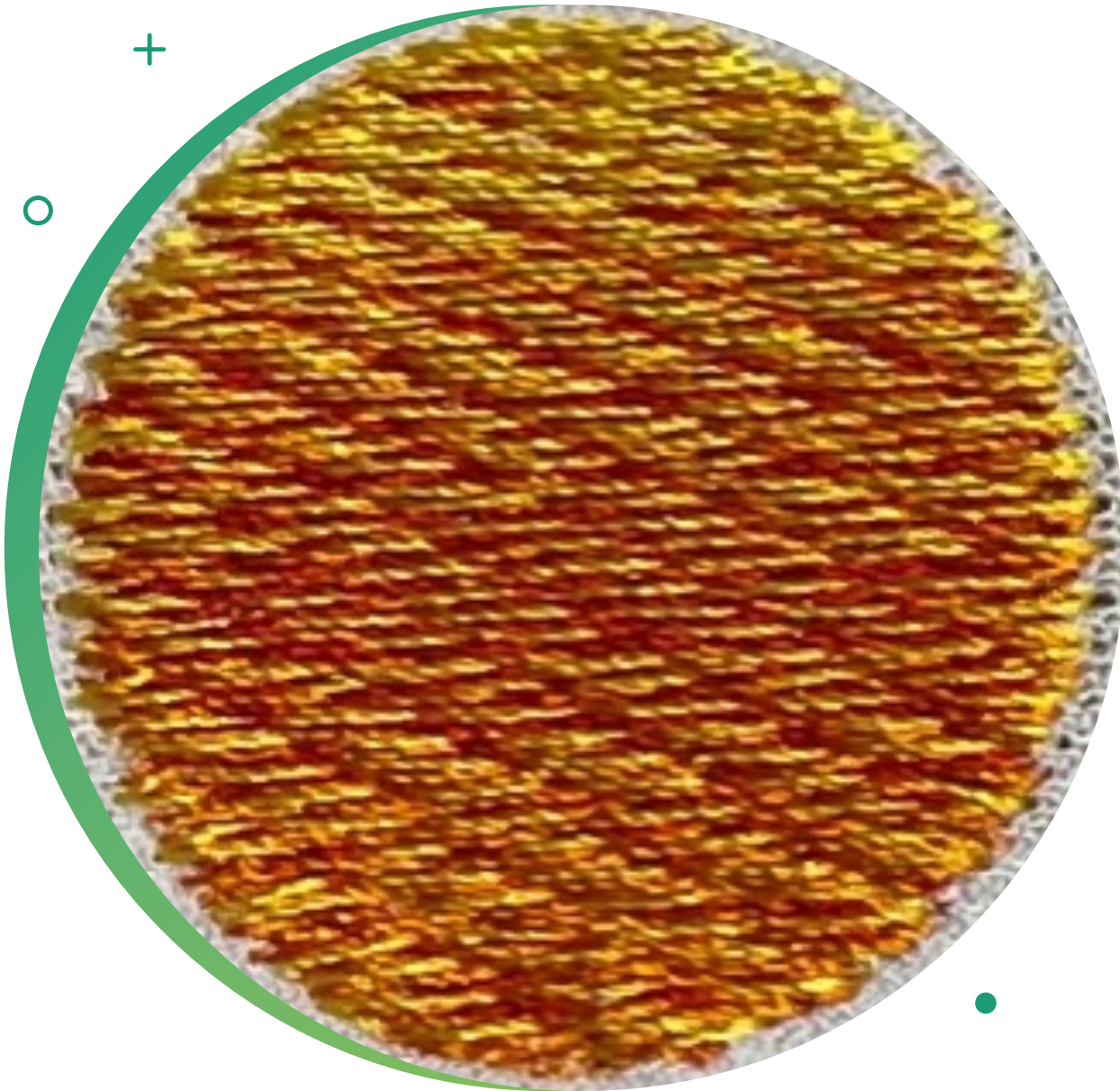
3-Color Blends

- Fill Tool Blends
- Gradient Tool Blends
- Wave Gradient Tool Blends



3-Color Bleeds

- When using a standard fill that you want to bleed three colors together, I found that 1.0mm density for the first layer and 1.2mm density for the second layer, and 1.2mm for the third layer works the best.
- Make sure to do the following:
 - Do the darker, more intense color first.
 - Include underlay for the first object only. Turn off underlay for the second and third layers (edge travel if necessary)
 - Make sure the stitch angle is going the same direction for all three objects.
 - start and end on opposite ends.



3-Color Gradient Blends

If you are creating a 3-color blend where you are using a convex, linear increasing, linear decreasing blend, I found these settings to be the best

- First, do the Convex blend (in the Darkest Color)
 - Gradient density: 1.4mm
- Second, do the Linear Increasing (In the Medium Intensity color)
 - Gradient density: 1.4mm
- Third, do the Linear Decreasing (In the lightest color)
 - Gradient density: 1.4mm

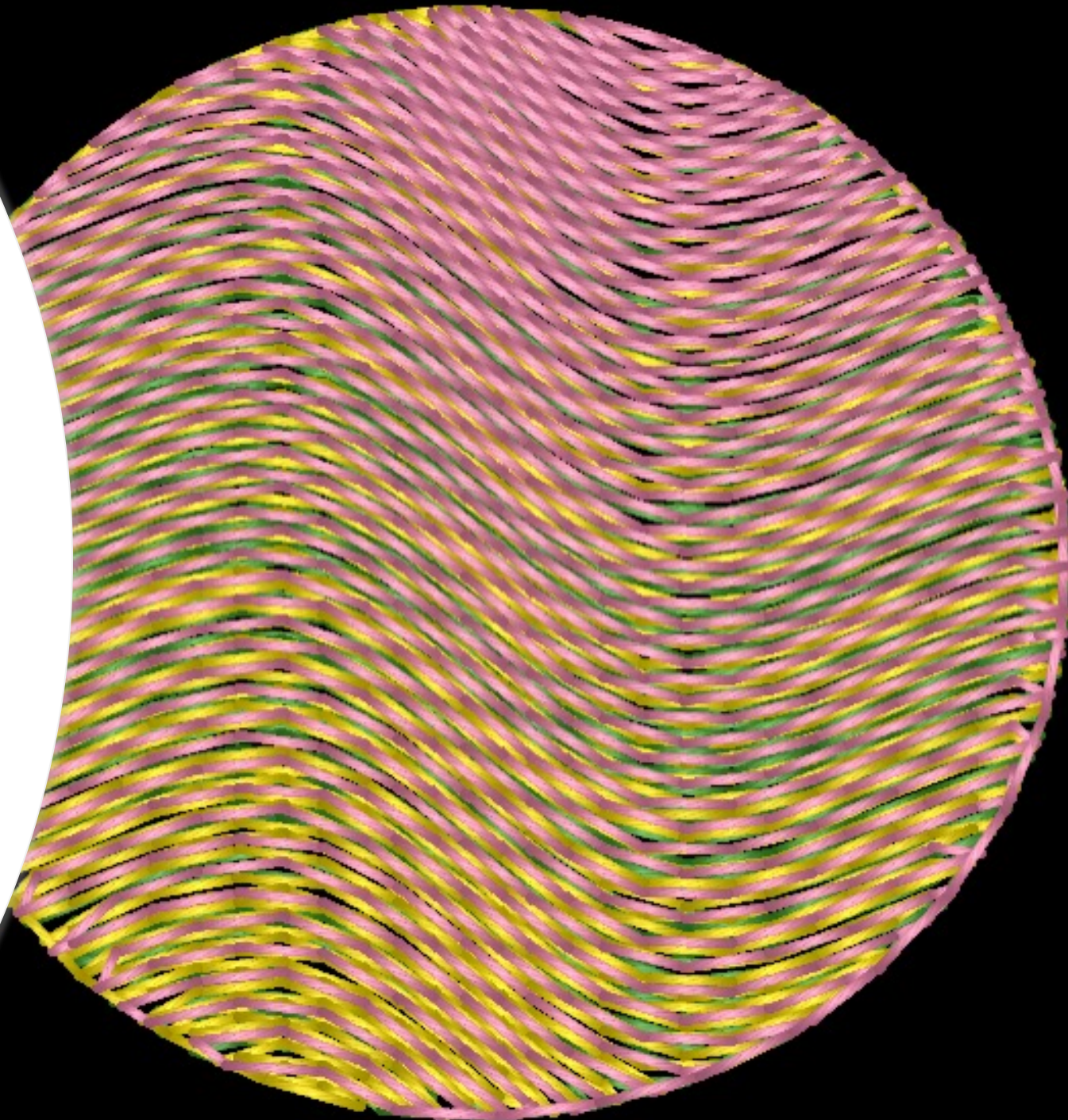
1. Red (Convex Blend): 1.4mm density
2. Orange (Linear Increasing): 1.4mm density
3. Yellow (Linear Decreasing): 1.4mm density

3-Color Wave Bleeds

- When using a wave fill where you want to bleed three colors together, I found that 1.2mm density for the first layer and 1.2mm density for the second layer, and 1.2mm for the third layer works the best.
- Make sure to do the following:
 - Do the darker, more intense color first.
 - Use only “Edge Travel” for the underlay.
 - Make sure the stitch angle is going in the same direction for all three objects.
 - start and end on opposite ends.

3-Color Wave Gradient Blends

- When using a gradient wave fill that you want to blend three colors together, I found that 1.2mm density for the first layer and 1.2mm density for the second layer, and 1.2mm for the third layer works the best.
- Make sure to do the following:
 - Do the darker, more intense color first.
 - Use only “Edge Travel” for the underlay.
 - Make sure the stitch angle is going the same direction for all three objects.
 - start and end on opposite ends.



Color Blending Presets

Convert to Fill

- 2 Color Shading
- 3 Color Blend

Convert to Gradient

- 2 Color Linear Increase
- 2 Color Linear Decrease
- 2 Color Convex
- 2 Color Concave
- 3 Color Blend Layer 1
- 3 Color Blend Layer 2
- 3 Color Blend Layer 3

Convert to Wave Fill

- 2 Color Blend Layer 1 & 2
- 3 Color Blend Layer 1, 2, & 3

Convert to Wave Gradient

- 2 Color Linear Increase
- 2 Color Linear Decrease
- 2 Color Convex
- 2 Color Concave
- 3 Color Blend Layer 1
- 3 Color Blend Layer 2
- 3 Color Blend Layer 3

Color Blending Templates

- 1_2_3 Bleed_Gradient.waf
- Wave Color Blending 5x7.waf
- Color Bleeding 5x7.waf
- Color Bleeding 9x14.waf

Practice Lessons

- Digitizing with DJ
 - Fill Stitch Recipes (<https://digitizingmasterclass.com/docs/digitizing-with-dj/recipes/fill-stitch-recipes/>)
 - Gradient Fills, Color Blend Fills, Standard Wave Fills, Gradient Wave Fills, Color Blend Wave Fills
- Digitizing Masterclass Lite
 - Advanced Techniques Section (<https://digitizingmasterclass.com/digitizing-masterclass-lite/>)
 - Lessons: CBL_1, CBL_2, CBL_3, CBL_4

Thanks For Watching