

# Zazzle Embroidery Design Guide

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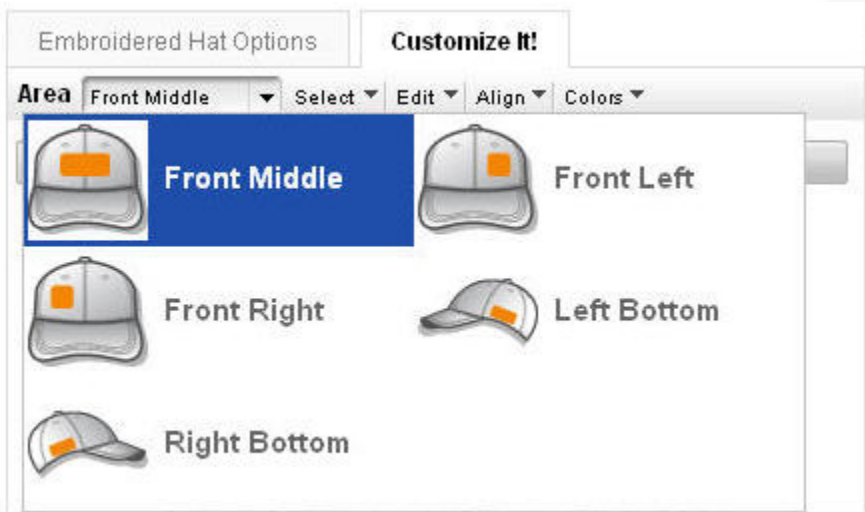
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## Introduction

Welcome to Zazzle embroidery. You can now express your ideas in real threads. Customers can order your embroidery-on-demand products just as they would order Zazzle print-on-demand products. Just like print-on-demand, you can place your designs on products, offer them for sale in the Zazzle marketplace, and market your products the same way you do for print-on-demand products.

The product creation process for embroidered products is different from other Zazzle products in a number of ways. Unlike print-on-demand, not all existing products can take embroidery. Also unlike print-on-demand products, embroidery designs cannot be scaled up or down once converted to embroidery. But don't despair- Zazzle has introduced new product lines selected for embroidery, including polo shirts, hoodies, and jackets, each with multiple design areas.

Embroidery products are always tied to a particular piece of apparel and a particular design area or areas on that apparel. You may use no more than one image per design area. Unlike print-on-demand products, most embroidery products must be converted to a special embroidery format so that your art can be created in thread. Embroidery format conversion requires a one time fee.



1. Embroidery products offer a choice of design areas.

Zazzle embroidery is real embroidery. Your design is actually sewn onto a product using colored threads. To achieve this, your design is converted from a standard digital image format like JPEG, GIF, or PNG to a special file format designed for digital embroidery systems, which contains information on thread colors corresponding to real thread and instructions on sewing stitches and sequences. Because your design will be recreated in actual thread, some designs won't work. Computer graphics and cameras can do all sorts of things you can't do with a needle and thread. For example, you can't sew a transparency or a subtle shade gradation. This guide discusses designing for embroidery and suggestions for what might and might not work.

## Creating Embroidery Products

Zazzle embroidery is stitched on industrial grade embroidery machines by skilled, experienced operators. These machines read your design from a file containing your image, along with instructions for sewing stitches and colors. Create your embroidery design following the guidelines in this guide to ensure that it will be successful as embroidery. You upload your design in your gallery in one of three popular graphics

file formats. Your design is reviewed to confirm that it can be reproduced in embroidery. It may be returned with suggestions.

## Your Design File

You can upload your design files in any of three common computer graphic file formats, GIF, JPEG, and PNG, and we will take it from there.

Your images should have a minimum resolution of 150 dots per inch (DPI) and a maximum of 300 DPI. Your embroidery won't look any better if you send us an image larger than 300 DPI, since all images are converted at 200 DPI. Avoid scaling up low resolution images as they won't look very good when converted, due to blur or jagged edges.



2. A JPEG original, as submitted. This design was returned because it would not fit in the design area and the floral designs at the top are drawn with lines too fine for embroidery. **Tip:** crop your background as close to your design as possible. An unnecessarily large background could cost you more because it requires more stitches and might result in unexpected design placement.

## Conversion Process

Embroidery conversion is not as simple as converting a computer image from one file format to another. The process of conversion translates your pixels into a physical object, with all the substance, beauty, and also the physical limitations of thread. Zazzle's trained embroidery professionals generate this specialized file, for which you pay the conversion fee.

Because the way embroidery thread is used to represent an image is fundamentally different from computer graphics in resolution and physical manifestation, some things you can do with your computer or your digital camera just can't be recreated in thread. For this reason, every design uploaded to Zazzle.com for embroidery will be reviewed by staff trained in embroidery conversion. Some images may be returned because they are too complex, too detailed, contain lines which may be too thin, or in some other way unsuitable for translation into embroidery thread. Returned images may be accompanied by suggestions for changes to make your image work better in embroidery. You will not be charged for returned designs.



3. *The new JPEG, ready for conversion to embroidery. The image is clarified and the background is cropped to the image.*

## Uploading DST and Changing Colors

You can change the colors used in your embroidery file. There are two reasons why you might want to do this:

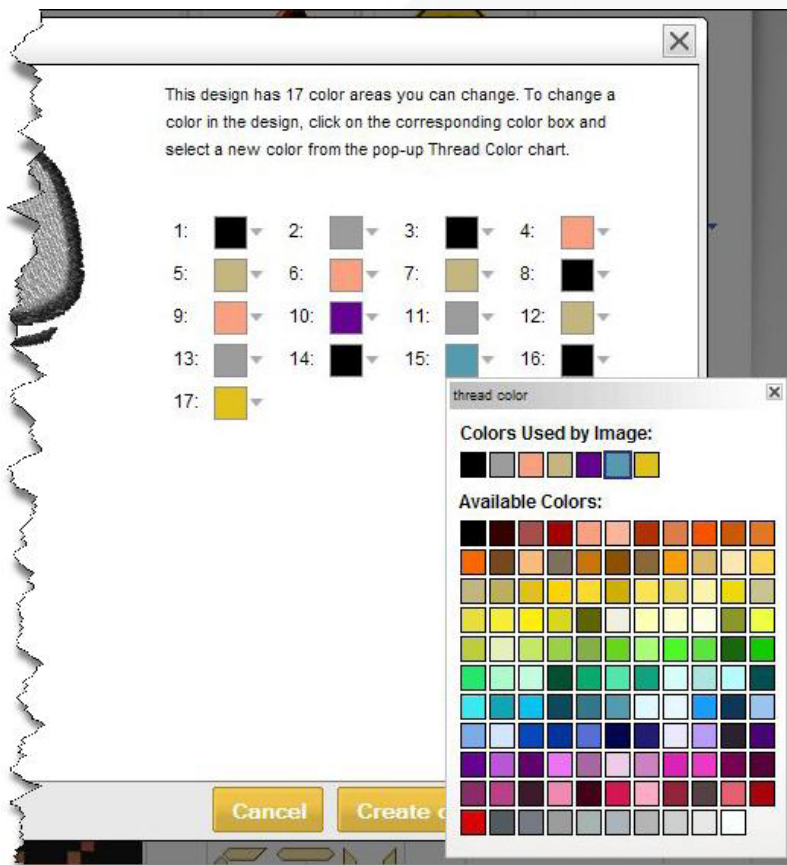
- When you upload a DST format embroidery file you must choose colors.
- You can change the colors used in any converted embroidery file if you wish.

### DST Format Files

If you have a DST format embroidery file, you should take a moment to choose the thread colors you want to use in the design. DST format files are available on the Web and from some digital embroidery conversion services. Unlike OFM format embroidery files, the DST format does not include color information. Often, but not always, DST files are accompanied by text files containing color suggestions, usually in a sew sequence. The color suggestions are not likely to be specified in the colors of Isacord thread used in Zazzle Embroidery. When you upload a DST file to your gallery it is assigned default colors.

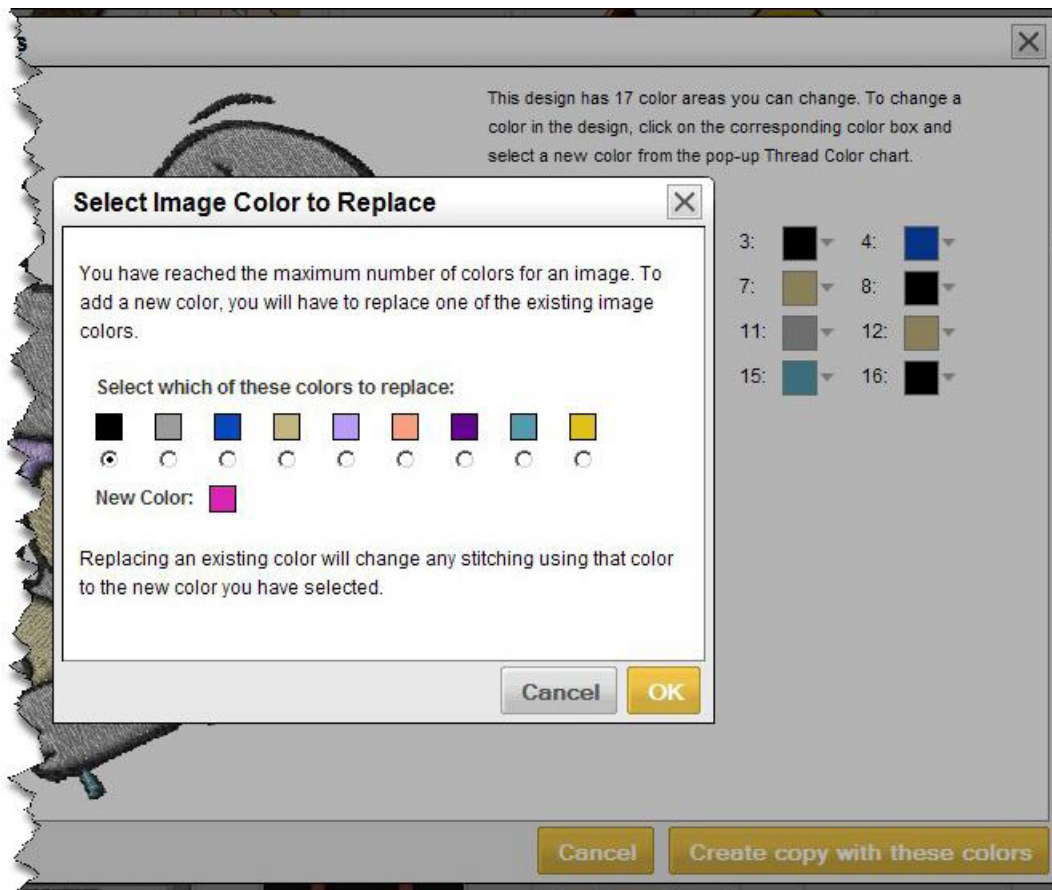
### Changing Embroidery Design Colors

You can change the colors in your embroidery design using the Zazzle Embroidery Design Tool or in My Images. The **Change colors** feature lets you pick colors from the actual thread colors used to sew your embroidery. You can save multiple different colored versions of your converted embroidery design. Pick the colors of your embroidery design by selecting **Change colors** when you upload a design to the Design Tool or within My Images by clicking on any OFM format embroidery file.



4. The **Change colors** color picker.

The colors in your design are presented in the order in which they will be sewn. Some colors may be sewn more than once. You can use a color as many times as you wish in your design. Click on a color to use the **Thread Color Picker** to select an actual thread color for your design. Your design is displayed with the colors you choose so you can decide if you like them.



##### 5. Exceeding the maximum number of colors.

You can use up to 8 colors in your design (in addition to black and white). If you pick a ninth color, you are prompted to replace it with one of the colors already in use.

When you have finished choosing colors, you can save a copy of your design with your new colors. The version with the previously selected colors is still saved in My Images. By default both designs have the same name, but different internal Zazzle IDs, so the Design Tool can tell them apart.



## Embroidery Pricing

There are two fees you may encounter when creating embroidery products on Zazzle.com. The first is the one time conversion fee. The second is the stitch count fee, which contributes to the final prices of your product.

The overhead required to review images and translate them into embroidery makes necessary a conversion fee for most embroidery projects. This fee is a one time charge to you for the creation of your embroidery product. Your customers will be charged only the price of the item. There are two ways you can avoid the conversion fee:

- Text-only products

Products created entirely from the over 100 pre-converted fonts, including Greek language and monogram fonts.

- Existing OFM or DST format files

If you have designs which have already been converted to one of the digital embroidery formats Zazzle supports, OFM or DST, you can upload them and use them for your Zazzle products at no additional fee. We cannot accept other embroidery file formats at this time.

The second fee which may be added to an embroidery product is on a per-product basis, and is rolled into the price of your product. The base price of your embroidery products is set like your other Zazzle products, by the cost of the product you offer. However, the price of an embroidery product also includes the price of the stitching required to create your design. Unlike print-on-demand, embroidery requires a varying amount of materials (thread) to create. The amount of thread required is determined in part by the content of your design and in part by the dimensions of your design. A sparse design does not require as much thread as a densely colored design and a larger design is likely to use more thread.

Pricing is based on 1000 stitch count increments. The first design and any text you add are included in the price of the product, as long as the total stitch count is under 10,000 stitches. Additional design areas and complex designs over 10,000 stitches raise the base price of your product. For more information and complete pricing information, see:

<http://www.zazzle.com/custom/embroidery>

Because price is based on stitch count, larger designs are not necessarily more expensive. A 1" by 1" design could have the same number of stitches as another that is 3" by 3" and therefore cost the same to convert. The same design at different sizes will not be the same price because it will require more stitches at a larger size and fewer at a smaller size.

There are examples of converted files along with their stitch count at the back of this guide intended to help you determine how many stitches your designs might contain. Keep in mind that files with a lot of stitches not only cost more to convert and to sew, they weigh more. As a result, consider avoiding large, heavy designs on t-shirts and childrens' apparel.



6. *The same design, converted to embroidery and sewn on a hoody, close up.*

## Thread Color

Your design will be created using real thread and embroidery thread is available in specific colors. The next figure contains a complete selection of thread colors available to you. These are the specific colors available for your embroidery design. If you create your design using colors available in thread, it can be sewn using the same colors.

Some design software will allow you to choose the color palette for your design. Use sRGB colors with minimal compression applied and use minimum compression settings. Usually you can type in the RGB values, as they appear in the chart. With this feature you can assemble a selection of colors from the thread color chart you can use to draw your design. A design created from a palette of available colors can be embroidered using the precise colors you chose. If you aren't using software that allows you to specify colors or if don't know what this is about, don't worry. You are not required to use the colors in the thread color chart. When you use colors in your design which do not match thread color precisely, the closest colors available will be selected during conversion.

## Color Limits

Because embroidery is sewn on a real sewing machine using real thread spools, there is a limit to the number of colors you can use in a single design. The Zazzle digital embroidery machines can hold 16 thread colors at one time. These unique thread colors are divided between your design's graphic and text. A single embroidery design can use eight unique colors plus two more, black and white, for a total of 10 colors in a graphic and up to six additional unique colors for text in the same design. If you try to upload an OFM embroidery file containing more than 10 colors, the upload will fail.

There is no limit on the number of times you use each color in your design. You can use different sets of colors for designs in separate design areas on the same product.

List #	Isacord 40 #	RGB Value	RGB Hex	
1	17	248,255,255	F8FFFF	
2	20	0,0,0	000000	
3	105	183,186,186	B7BABA	
4	108	115,120,122	73787A	
5	138	69,75,88	454B58	
6	142	158,169,166	9EA9A6	
7	150	200,198,189	C8C6BD	
8	220	250,238,92	FAEE5C	
9	221	229,203,79	E5CB4F	
10	230	255,244,106	FFF46A	
11	270	254,249,217	FEF9D9	
12	311	255,220,0	FFDC00	
13	345	98,79,0	624F00	
14	352	184,178,90	B8B25A	
15	453	141,143,91	8D8F5B	
16	520	255,244,165	FFF4A5	
17	542	185,142,3	B98E03	
18	651	228,193,128	E4C180	
19	672	197,191,166	C5BFA6	
20	722	150,131,109	96836D	
21	747	78,53,0	4E3500	
22	761	221,203,165	DDCBA5	
23	776	96,88,64	605840	
24	800	255,175,2	FFAF02	
25	811	246,174,50	F6AE32	
26	822	200,147,52	C89334	
27	824	229,147,0	E59300	
28	832	200,147,64	C89340	
29	873	158,148,127	9E947F	
30	922	200,112,11	C8700B	
31	931	187,87,4	BB5704	
32	1061	177,144,114	B19072	
33	1102	255,129,1	FF8101	
34	1115	177,80,10	B1500A	
35	1123	192,156,114	C09C72	
36	1134	132,61,7	843D07	
37	1141	216,166,125	D8A67D	
38	1154	130,66,27	82421B	
39	1300	255,115,25	FF7319	
40	1305	255,61,30	FF3D1E	
41	1311	186,64,5	BA4005	
42	1312	199,60,19	C73C13	
43	1332	230,107,33	E66B21	
44	1346	61,28,17	3D1C11	
45	1351	255,188,149	FFBC95	
46	1362	255,204,147	FFCC93	
47	1375	55,55,50	373732	
48	1532	255,175,148	FFAF94	
49	1565	91,64,50	5B4032	
50	1600	255,96,70	FF6046	
51	1753	255,109,113	FF6D71	
52	1755	235,186,174	EBBAAE	
53	1805	235,45,43	EB2D2B	
54	1840	255,152,143	FF988F	
55	1874	67,67,49	434331	
56	1902	193,25,20	C11914	
57	1903	200,16,13	C8100D	
58	1906	191,10,33	BF0A21	
59	1921	210,60,62	D23C3E	
60	1972	143,140,147	8F8C93	

List #	Isacord 40 #	RGB Value	RGB Hex	
61	2011	163,26,28	A31A1C	
62	2115	77,3,8	4D0308	
63	2155	255,205,204	FFDCDC	
64	2500	135,28,69	871C45	
65	2508	219,64,131	DB4083	
66	2520	255,102,138	FF668A	
67	2521	201,18,67	C91243	
68	2530	255,160,182	FFA0B6	
69	2550	254,165,185	FEA5B9	
70	2674	98,108,126	626C7E	
71	2711	94,25,66	5E1942	
72	2715	51,0,29	33001D	
73	2764	165,123,141	A57B8D	
74	2810	112,42,105	702A69	
75	2830	179,133,188	B385BC	
76	2900	36,0,71	240047	
77	2910	114,69,147	724593	
78	2920	99,77,134	634D86	
79	3110	0,1,54	000136	
80	3355	0,0,33	000021	
81	3522	5,74,189	054ABD	
82	3541	28,0,93	1C005D	
83	3544	0,31,113	001F71	
84	3622	0,46,94	002E5E	
85	3630	113,170,216	71AAD8	
86	3644	0,23,72	001748	
87	3650	200,219,228	C8DBE4	
88	3730	159,199,223	9FC7DF	
89	3743	8,46,77	082E4D	
90	3750	152,176,188	98B0BC	
91	3810	35,103,156	23679C	
92	3842	61,101,126	3D657E	
93	3901	0,102,159	00669F	
94	3910	71,174,221	47AEDD	
95	3962	187,223,235	BBDFEB	
96	3971	186,190,183	BABEB7	
97	4032	1,93,126	015D7E	
98	4071	213,221,219	D5DDDB	
99	4073	136,141,142	888D8E	
100	4103	0,124,166	007CA6	
101	4111	62,187,200	3EBBC8	
102	4116	0,92,121	005C79	
103	4240	128,204,216	80CCD8	
104	4250	172,206,199	ACCCE7	
105	4410	0,110,116	006E74	
106	4515	0,42,41	002A29	
107	4620	56,164,174	38A4AE	
108	5050	175,216,205	AFD8CD	
109	5210	20,155,123	149B7B	
110	5220	122,200,175	7AC8AF	
111	5233	24,113,102	187166	
112	5374	0,75,35	004B23	
113	5415	0,104,53	006835	
114	5531	92,156,81	5C9C51	
115	5613	14,149,67	0E9543	
116	5833	94,122,23	5E7A17	
117	5944	34,89,38	225926	
118	6011	188,214,51	BCD633	
119	6051	187,205,145	BBCD91	
120	6133	151,139,60	978B3C	

# Designing for Embroidery

The first section discussed the basics of embroidery product creation. Successful embroidery products are designed with the strengths of embroidery in mind. In this section you will find examples of designs that do or do not work well in embroidery.

Always keep in mind that what you are designing will be sewn in thread. Have you ever seen a photograph recreated in thread? Probably not and for good reason. It doesn't work well. Fancy image processing filters also don't translate well. Avoid using images composed with noise, blur, or softening filters. Images with clean, clearly viewable edges work best. Avoid using low resolution images as they will pixelate when scaled upward and won't look good when embroidered. Also avoid soft edges on your designs as it's difficult to stitch them out accurately.

Your final image should be submitted with a transparent background unless you want a color, pattern, or design embroidered as the background for your image. Keep in mind that a solid color background requires a lot of stitches and a transparent background requires no stitches. Your image borders should be cropped close to your image to avoid any confusion about the dimensions or background you want for your image.

## Templates

Yes, you can create template products using embroidery. However, you cannot create an image template object for an embroidery product. You can create only text template objects, using any of the many fonts already converted to embroidery.

## Photographic Illustrations

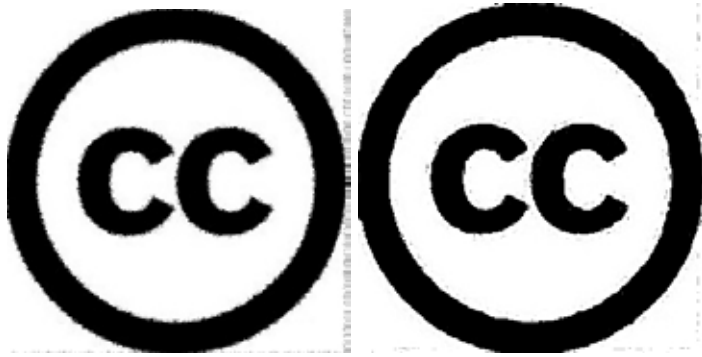
Photographic images don't work as embroidered designs. The detail in photos is too fine to duplicate using threads. Unless the images are posterized into a limited number of colors, photos just won't work. Posterized images with jagged or complex edges are also poor candidates for conversion to embroidery.



*7. Jagged edges and small areas of color detail make this posterized photographic image difficult to recreate in embroidery.*

## Lines and Outlines

The lines in your design should be at least 2 points wide. Lines convert to thread best when they are 4 points wide or greater. Try to make sure all lines are clearly visible and not blurred. Avoid thin outlines around objects where possible.

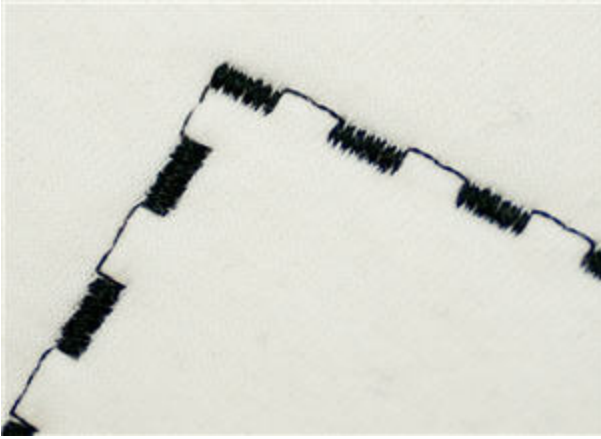


8. *Fuzzy and broken edges.*



9. *Just right: submitted design and embroidery close-up.*

Line thickness should be at least 2pt (pixels) wide. Images reproduce best when lines are 4pts in thickness or greater. Try to make sure all lines are clearly visible and not blurred. Avoid thin outlines around objects where possible. If your design requires an outline, make sure it's at least 2pts or greater. Avoid outlines around any text, and do not outline objects under .25" x 25". It's also best to avoid using one outline around another outline



10. *Example thin and thick stitch lines.*

## **Gradients**

Gradients don't work well in embroidered images. Try reducing all gradients to solid colors.

## **Small Details**

Avoid areas of color smaller than .25" by .25" or multiple colors in small areas. Embroidered design cannot represent this level of detail well.



11. *Too much fine detail and multiple colors in small areas.*





12. *Suitable level of detail.*

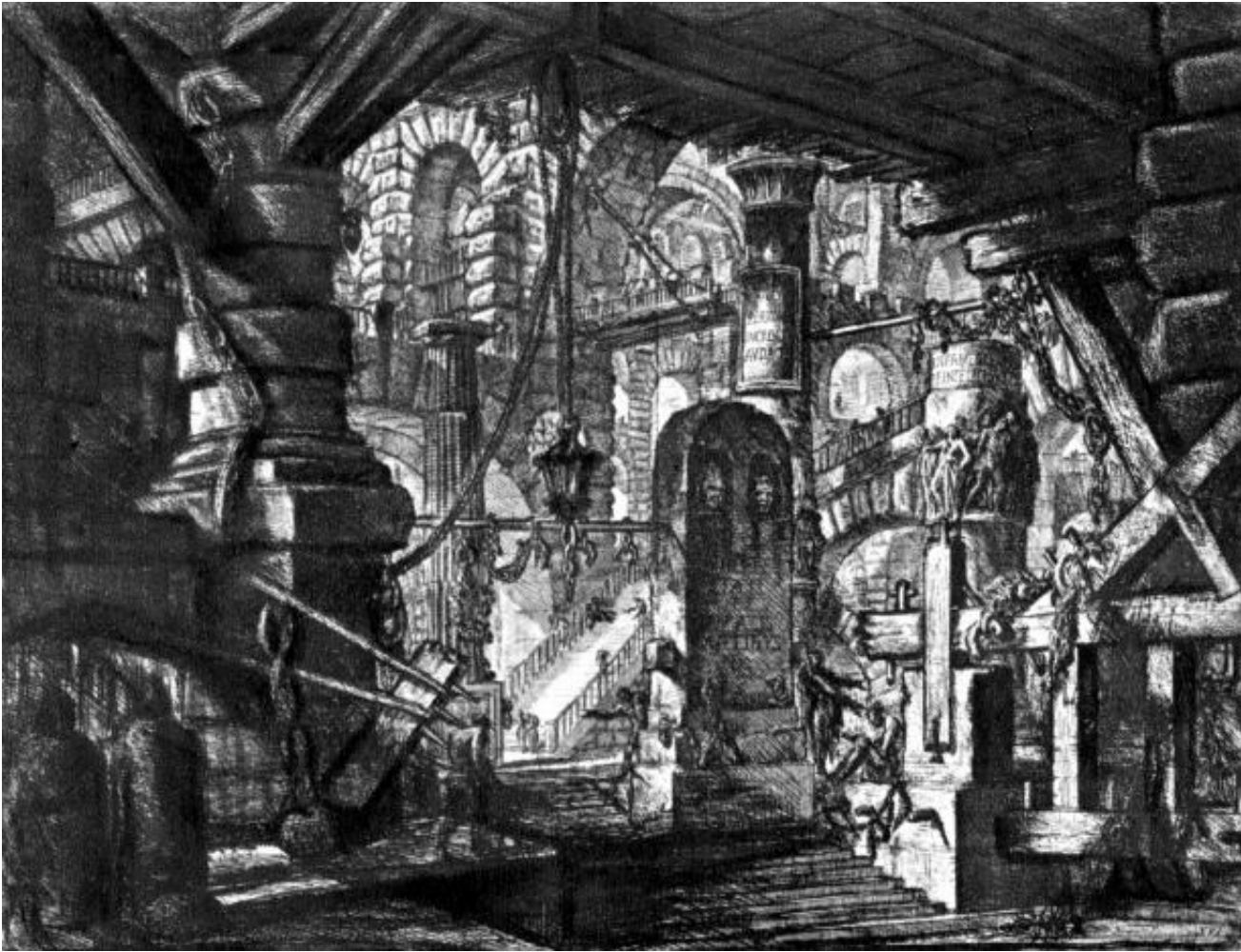
## Line Art and Realistic Art

For embroidery, always use line art. Complex or realistic illustrations, which usually have blended edges or complicated detail won't look good in embroidery. This is because embroidery uses threads rather than the dots of ink used by printing. Threads represent solid colors and solid lines well.



13. *Line art converts to embroidery well.*

Use line art in all cases. Avoid using complex or realistic illustrations with blended edges or complicated details. Since embroidery uses threads rather than dots of ink, it works best when replicating solid colors and solid lines.



14. *Complex imagery is not suitable for embroidery.*

## Shadow and Drop Shadows

Producing shadows in embroidery is difficult. Avoid narrow drop shadows less than 1/4" in width. It's best not to outline drop shadows and avoid using drop shadows on fonts less than 5/8" tall.

15. *The shadows in black outside the letter outlines are very difficult to represent well in an embroidered image.*

# DEEP BLUE

16. *The drop shadows behind this text will convert well because the shadow is well defined, is wide, and can be converted using a single thread color.*

## Transparencies

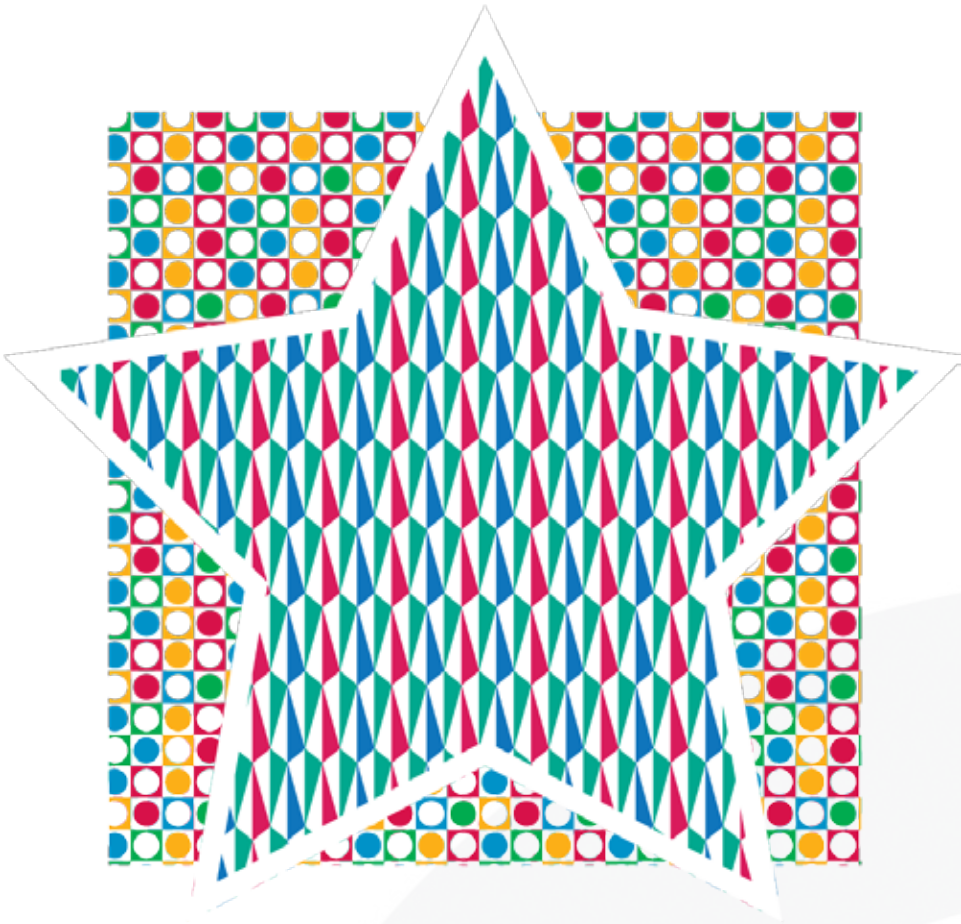
Color transparencies in images don't work in embroidery. Since threads are used to produce embroidery, a transparent effect in a graphic will be lost or muddled.



17. *This image cannot be converted to thread embroidery.*

## Pattern Fills

Use solid fills in objects. Avoid patterns, specialty fills, fractals, geometric manipulations, skins, or other digital graphics techniques.



18. *Pattern with small detail. Not a good candidate for conversion to embroidery.*

## **Text**

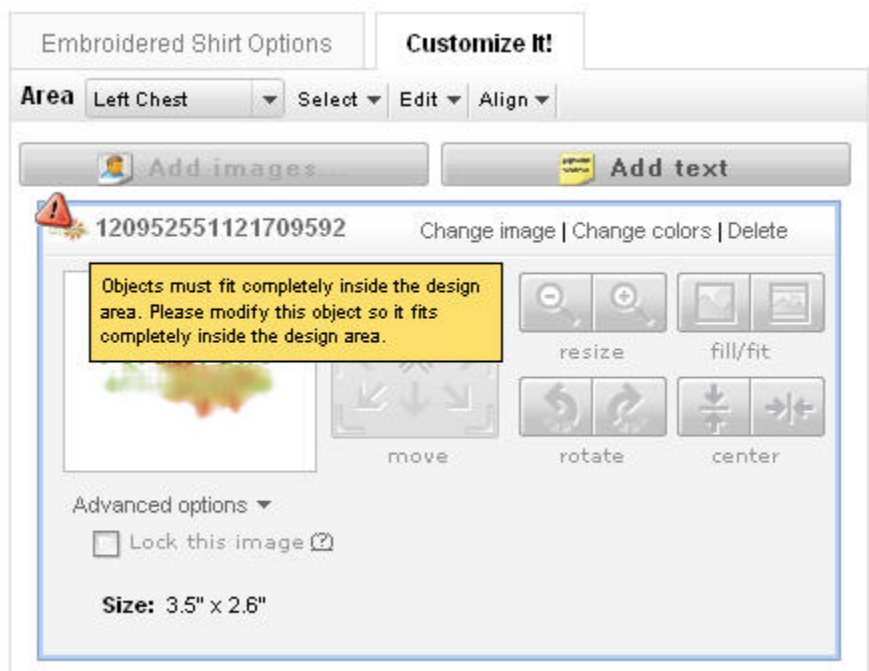
Choose from the many Zazzle fonts already converted to embroidery, in styles and sizes that work well stitched onto fabric. Use these fonts whenever possible. They are already converted and so do not incur a conversion fee and they are chosen because they look good in embroidery. If you include text within your design, remember that fine detail and very small sized fonts won't embroider well, if at all.

You can add text to your design after the image is converted and placed on the product. Your customer can add text within a template product, too. Remember that if your image and text combined exceed 10,000 stitches, the price of your product will go up.

Text placement over embroidered images is not supported. For example, if you have a circle filled with color (thread) you will not be able to place text over this image. If you have a circle without colors inside, that is, without embroidered threads, you can place text within the circle.

## Apparel Design Areas

Embroidery designs are converted at a specific, fixed size. Design areas on apparel are also a specific, fixed size. Your design must fit in the design area you want. If it does not, you will see an error icon in the Design Tool. Place your cursor on the error icon for a full explanation.



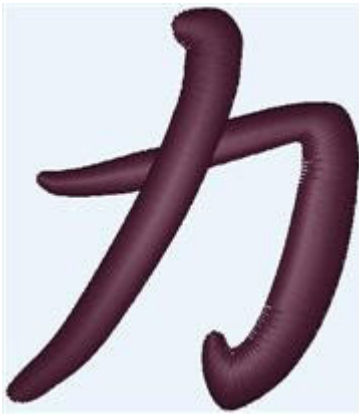
The size of your design is indicated below your design. If your design does not fit in the area you want, you can choose a design area in which it does fit or you can convert your design again at a different size.

## Embroidery File Formats

If your designs have already been converted to either OFM or DST embroidery file format, you can upload them to Zazzle using the same tool you use to upload files for conversion. There is no conversion fee for these designs. Other embroidery file formats are not supported at this time.

## Stitch Count Examples

This section contains a few examples of converted embroidery designs. You can use these examples to get an idea of how many stitches are required to create a particular design at a specific size.



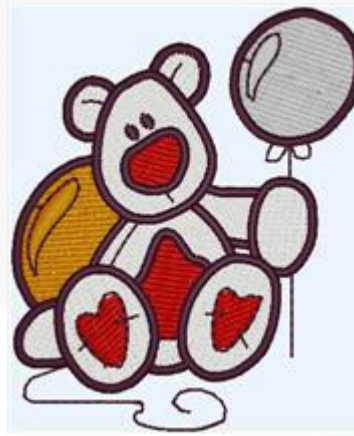
1,209 stitches, 1.76" x 2.00"



3,015 stitches, 1.06" X 1.73"



5,079 stitches, 1.76" x 2.13"



7,320 stitches, 1.75" x 2.11"



10,004 stitches, 2.51" x 1.85"



15,009 stitches, 4.84" x 2.13"