

Folding and Design Theory MC 174 Diamond Cube

Introduction

This document is intended to assist designers with the Magicubes.com model MC174, the 7cm Diamond Cube. For general design suggestions, applicable to all models, please see the document titled "Read Me First" provided in the same folder.

If you are familiar with the MC107 Cube model, the information in this document will be familiar to you, because MC174 is simply the MC107 with the corners cut. They both start out the same, as a cube, with the same exact panels, but upon opening the MC 174, an inside space is revealed, created by these cut corners. When one continues to unfold the cube, the corners are



turned "out" and form the "diamond" shape. Without prior experience, the layout can seem complex; as such we have provided resources to aid your understanding and make this a fun and undaunting process. If requested, we can also recommend artists who are very familiar with the folds and how to layout a design that works well. These artists can be available on a consulting basis or to design the cube completely.

Text Placement and Size

As with most designs, it is important to ensure the legibility of any text used. The MC174 cube can be difficult when considering text, because while you gain numbers of panels, they become smaller. This can be helpful or it can make things more difficult. We don't recommend using text smaller than 12 pt. We suggest the primary content used in the diamond be images, and not text. The MC174 is best used with large graphics to keep the eyes entertained and the hands busy. An individual image on each of the four squares within a panel



doesn't usually work well, because there is no bleed between the squares. If the text is to be bisected by any of the die cuts, we don't recommend smaller than 14pt because some of the letter may be lost in the cut, sometimes with hilarious results. In all circumstances, we recommend adjusting text kerning and spacing to avoid cutting letters. All text should be converted to outlines for final print, this ensures any text on your cube looks the way you expect it to and isn't substituted with something we have on file.

The triangular panels that replace the corners of MC107 to create the "Diamond" shape are great for one or two words. Trying to place more text in those

triangles will be difficult. The triangles are also a great place for an icon or image that would benefit from repetition. When it comes to placing text or a logo on these triangles, some struggle with the triangle's orientation. You should know that each triangle will be upright in some views and folds, and upside down in others. There is no "top" or "bottom" to the triangles because of the symmetry displayed in both the cube and diamond configuration.



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Manipulation of the Diamond and Folding Theory

The MC174 Diamond is designed to snap at certain points through the use of magnets. These magnets keep the MC174 stable in both the cube and diamond configuration.

Please use the MC174 Diamond Manipulation document to follow the below instructions. While you are designing your cube, please keep in mind that there is no "up" or "down" or "right" or "wrong" way. The diamond configuration can be revealed by two series of folds, begun with either "Top Panel 1" or "Bottom Panel 3." Both starting points will take you to the same place- the diamond!

If panel direction is important to you, Directions of images should correspond with the directions indicated in the Adobe Illustrator layout template file named MC174-7cm-789Template.ai.

Though we reference a "top" and "bottom" in our panel naming convention, neither should be viewed as superior or inferior. Your audience could start at either point. For simplicity, the description follows the Manipulation Document and begins with "Top Panel 1." As shipped in our gift boxes, this panel is the panel visible when the user opens the box's flap. These gift boxes can be white, or customized with your images.

Because this is how our cubes are shipped within our gift boxes, we will refer to "Top Panel 1" as the northern pole of our cube, and the "Bottom Panel 3" as our southern pole. Upon reaching the diamond configuration, we will refer to "Panel 7" as our northern pole and "Panel 9" as our southern pole.

Placed on a flat surface and orientated with "Panel 7" as the North pole and "Panel 9" as the South pole, resting on the flat surface, the relationship between the square panels are as follows:

- "Panel 8" is to the Front and "Panel 10 is at the back
- Panel 11" is to the West and "Panel 12" is to its East
 - "Panel 14" forms the Northeast triangle of "Panel 8" and "Panel 17" forms the Southeast triangle
 - "Panel 16" forms the Northwest triangle and "Panel 19" forms the Northwest triangle
- Rotate the cube 180 degrees
- "Panel 10" is to the Front and "Panel 8" is at the back
 - "Panel 11" is to the East and "Panel 12" is to the West
 - "Panel 15" forms the Northeast triangle of "Panel 8" and "Panel 20" forms the Southeast triangle
 - "Panel 13" forms the Northwest triangle and "Panel 18" forms the Northwest triangle







Description of .AI Template

To produce the correct layout, you must use the Adobe Illustrator layout template file named MC174-7cm-789Template.ai. Designs submitted without this template are subject to additional production charges of \$85/ hour.

Bleeds (DO NOT DELETE)

We require this black-lined layer in order to line up your print for production. Do not delete this layer. If this layer is missing, additional time will need to be billed to your project for one of our artists to line the file up for printing. Bleed are 2.55mm from the die cut lines.

Sizes (WILL NOT PRINT)

These black measurements are for your information.

Die Cut (DO NOT DELETE)

These red lines are provided for your information. It will not print on your cube, but for our artists and printers, please leave this layer in the file for their reference. All images should bleed past the die cut lines to the bleeds, so that each panel bleeds to the next panel. There should be no white space between images.



Patent Number (DO NOT DELETE)

Your design must include our patent number. We have placed it in "Panel 3", but it can be moved to another panel and the color may be changed so long it is legible in print. The *required* text should read "PAT NO: ZL972186816". The minimum size for this text is 8 pts.

Labels (WILL NOT PRINT)

Provided on a separate layer for reference. During designing, this layer can be moved above your artwork for reference, but should be deleted upon delivery for print.

Manipulation (WILL NOT PRINT)

A quick reference to the manipulation document. This will not affect your design.

Your Artwork Goes Here

Your artwork should be placed below the Bleeds layer. We recommend importing flat images into this layer and keeping all your artwork to a single layer. Images should be at least 350 DPI and all files embedded and typefaces outlined.

Example Artwork (WILL NOT PRINT)

This is a design we felt was particularly successful at using the folds of the cube, combining text with images and provided a great deal of interest. You can see how the client put it together, here.

Mock-Up Example (WILL NOT PRINT)

This is a reference for you to compare with the mock-up cube supplied, if you requested samples.



Optimizing for Print

Before you send your final file for print, please email us a low resolution image (72 DPI JPG or PDF) file for us to review. We want to make sure you will be happy with your design. Please make sure that the die cut layer is visible and on top for this review step only. Email a JPG or PDF (draft) to ArtDept@MagiCubes.com.

When your design is final, submit a digital file (EPS, PSD, or AI), with raster images at 300-350 DPI. Imported images must be embedded. All digital files must be submitted via Website Upload Form at http://www.magicubes.com/art_upload. See Art Upload instructions on our Order Form. If you haven't received an Order Form yet, please download it from our website at http://magicubes.com/orderform.pdf, or email us requesting one.

As with most printed media, we use CMYK colors, which can be very different from what is on your screen. Please work in this color set-up or convert to CMYK before you submit your file to us. If exact color is important to you, we recommend using Pantone/PMS Spot Colors. These inks require additional equipment and know-how so a minimum of \$200 will need to be charged, per individual Pantone/PMS spot color.

Please discuss this or any other questions with us by calling 1-877-99-CUBESx111.

Additional Resources

Please see the following videos regarding our cubes:

- 1. Mock-Up YouTube video, http://youtu.be/kGGFSmA4PBo
- 2. Veracode YouTube video, http://youtu.be/QX8nS0XNJDY

Videos online- YouTube

- 1. 1-Primary Video Channel <u>http://www.YouTube.com/MagiCubesDotCom</u>
- 2. 2-Safe Video Channel for Resellers <u>http://www.YouTube.com/foldingcubes</u>

Submission Checklist

To help the designers working with us to get the perfect results we know they strive for, below is a list of standards that must be met with every file submitted to us for production. Please read prior to creating and submitting your MagiCubes.com Artwork. Feel free to print the last page and check the boxes before submitting as an added layer of quality assurance. Using this checklist will ensure your cube meets your expected quality standards.



Submission Checklist

- □ I have submitted a draft JPG file to ArtDept@MagiCubes.com.
- □ My file is in the provided .AI layout template, MC174-7cm-789Template.ai
- □ PAT NO: ZL972186816 is legible somewhere on the cube, no smaller than 8pt.
- □ All of my typefaces are outlined.
- □ My file is CMYK or Pantone.
- \Box All of my images are embedded.
- \Box All of my images bleed past the die cuts and there are no white spaces between my images.
- □ The text in my cube either does not cross a die cut line or is large enough that loosing parts of the letters will not affect its legibility.
- $\hfill\square$ I understand there is no bleed between squares on the same panel.
- □ I have flattened my artwork into a single layer within the provided template.
- □ I have filled out and submitted an order form from <u>http://magicubes.com/orderform.pdf</u>.
- □ I am prepared to upload my final design via the <u>http://www.magicubes.com/art_upload</u>.

Congratulations!

Your file is ready for production.

We look forward to seeing your creations via our upload form.