
Subject: Hexbox

Posted by [Magic](#) on Fri, 19 Nov 2010 18:39:01 GMT

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The Hexbox arrived!

I don't know if you remember the Dodbox.

This model has some common points. It is a box made of two identical parts. And you can also stack several boxes one on top of the other.

The principle is that one side out of two is connected to the top of the box and the other sides to the bottom, as you can see from the colors.

I have seen some cube-shaped boxes that open this way (in transparent plastic or even in wood) and they are not so easy to open.

But in this case, it is even more difficult. This is because when you grab the box, you tend to grab it by two opposite faces - if not the box slides on your fingers - and in this case (at the contrary of a cube) they are of "two different colors". Even more, if you use two hands, you multiply the difficulty by two (placing properly the fingers of one hand is not enough)!

So basically, even if it can open without friction, when you spontaneously grab it, it will not fall apart.

To open it, the fingers of one hand must be on the red faces, and the fingers of the other hand on the black one.

(well, on this picture, I am cheating because the box is lying on a table and because I use the pegs to avoid that the box slides)

Once you know that, it is easier... but not so much!

Imagine if it was printed in a single color!

I think we can consider it is a kind of puzzle. It is always funny to see your friends struggling to open it (and using brute force) even after you show them how to do...

It is a little bit expensive because the sides have to be thick (3mm in this case), and you have to buy two halves to make a complete box.

There is a version with pegs and holes that you can be stacked:

and a version without pegs and holes that I printed in Transparent Detail so that it looks like a crystal (unfortunately, I printed only one)

Enjoy!

File Attachments

- 1) [IMG_0996.jpg](#), downloaded 376 times
 - 2) [IMG_0997.jpg](#), downloaded 378 times
 - 3) [IMG_1012.jpg](#), downloaded 384 times
 - 4) [IMG_1004.jpg](#), downloaded 389 times
 - 5) [hexbox_all.jpg](#), downloaded 396 times
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Subject: Re: Hexbox

Posted by [gibell](#) on Fri, 19 Nov 2010 20:46:21 GMT

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Cool! Clever use of lego-like connections for stacking.

Reminds me of a Pennyhedron, which also is made from two (mirror image) pieces. It has the same problem in that you need to use a tricky 3-fingered grasp to take it apart, and the sliding axis is even better hidden. I made a 3D printed version I called a pillowhedron.

Subject: Re: Hexbox

Posted by [Magic](#) on Fri, 19 Nov 2010 21:46:58 GMT

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Thanks Gibell.

Very interesting link and model. Initially, for the Detail Transparent one, I wanted to make the top (and bottom) of the box like an hexagonal pyramid to give it the shape of a crystal. I did not realise that a rhombic dodecahedron was also possible!

Subject: Re: Hexbox

Posted by [Magic](#) on Sat, 20 Nov 2010 16:35:06 GMT

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I posted a video of the Hexbox.
It give a better idea of how it opens.
