
Subject: Redi Cube and Fadi Cube by OSKAR

Posted by [Oskar_van_Deventer](#) on Tue, 21 Jul 2009 15:59:38 GMT

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Hi Shapeways fans,

Redi Cube and Fadi Cube are both twisty puzzles, like the Rubik's Cube. Here, the pieces turn around the cube corners. These puzzles are an attempt to use other than conventional slices to make a twisty puzzle. At first sight, it looks impossible to twist this puzzle at all. But the pieces go over and under eachother to make it possible.

Watch the YouTube clips:

<http://www.youtube.com/watch?v=cjfMzA1u3vM>

<http://www.youtube.com/watch?v=C1WfiZpeXC8>

Buy the puzzles:

http://www.shapeways.com/model/40561/redi_cube.html

http://www.shapeways.com/model/40559/fadi_cube.html

Look at the photos below.

Enjoy!

Oskar

File Attachments

- 1) [Redi Cube v2 - prototype - 1 turn.jpg](#), downloaded 653 times
- 2) [Redi Cube v2 - prototype - 2 turns.jpg](#), downloaded 662 times

- 3) [Fadi Cube v1a - prototype - 1 turn corner.jpg](#), downloaded 639 times
 - 4) [Fadi Cube v1a - prototype - 2 turns.jpg](#), downloaded 660 times
 - 5) [Redi Cube and Fadi Cube.jpg](#), downloaded 693 times
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Subject: Re: Redi Cube and Fadi Cube
Posted by [gibell](#) on Tue, 21 Jul 2009 16:43:51 GMT
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I really like these designs, because they retain cubical symmetry. Also, at first glance they appear to be standard Rubik's Cubes but no standard Rubik's cube moves are possible!

I would think the one drawback to WSF for making these puzzles would be its somewhat rough finished texture. Have you experimented with any sanding to smooth out the action?

Subject: Re: Redi Cube and Fadi Cube
Posted by [Oskar_van_Deventer](#) on Tue, 21 Jul 2009 17:06:43 GMT
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Hi George,

You will be surprised about the smoothness of the movement of these puzzles when I show them to you next time we meet.

There is absolutely no need to do any sanding. The turning of the first few moves is a bit rough. Then the pieces have sanded each other sufficiently to have perfectly smooth turning.

Oskar

Subject: Re: Redi Cube and Fadi Cube
Posted by [gibell](#) on Tue, 21 Jul 2009 19:19:21 GMT
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Cool! I would love to try some of them out. Its hard to tell how smooth they are from your videos.

Subject: Re: Redi Cube and Fadi Cube
Posted by [Nshortino](#) on Wed, 22 Jul 2009 00:24:19 GMT
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All of the puzzles like these that I keep seeing on Shapeways never stop amazing me. I understand the mechanics of a Rubik's Cube, but each time a new puzzle comes up on here I stare at it wondering how in the world it could possibly work.
Nice work on both puzzles. Are the colors painted on or are they stickers? And have you experimented with scrambling and solving them yet?
I'd be interested to know how difficult they are in comparison to a traditional Rubik's Cube. I have a few friends who can solve them pretty quickly, so I might be interested in some of these new designs as gifts to keep them busy for a while.

Subject: Re: Redi Cube and Fadi Cube
Posted by [Oskar_van_Deventer](#) on Wed, 22 Jul 2009 02:22:15 GMT
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Hi Nicholas,

> Are the colors painted on or are they stickers?

These are stickers. I order all my stickers from Dragan "Dr. Sticker" Tutic. He offers high quality custom-made stickers for a very attractive price.
<http://www.dr-sticker.com/about---contact.php>

> And have you experimented with scrambling and solving them yet?

Eh, ..., so far I have only scrambled them, taken apart and reassembled.

> how difficult they are in comparison to a traditional Rubik's Cube

Some of them are much harder, some are easier. What is important is that they all are very different from a traditional Rubik's. So your friends will be baffled, as they can't use any of the moves they learned for their Rubik's Cube.

Oskar

Subject: Re: Redi Cube and Fadi Cube
Posted by [MaxSMoke777](#) on Fri, 24 Jul 2009 05:40:34 GMT
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Instead of using stickers, have you considering making a slot into each face, allowing a small square to be slotted into place? Then you could paint the squares separately with acrylic to

achieve the same solid color, then slot it into place. It's a lot more crafty and elegant than stickers. And by keeping each piece separate well painting, you don't have to put in a lot of careful brush work. You could even use metallic or iridescent spray paints to give each square a nifty finish stickers can't match.

Alternatively, another idea might be to forgo the traditional simple colors and instead emboss the sides of the cube with famous paintings, faces, or some other kind of simple and recognizable picture. That way, instead of just colors, each face could be a work of art on to itself.

For example:

If you were making just a regular Rubik's Cube, make a thin square box with a few thousand faces and use a function like 3D Studio's Displace to extrude the box. Then carefully divide the box into 9 even pieces, shrink a bit so there's a gap between each piece, and affix each piece to the face of one of the cube elements.

Or you could attach end caps to each piece, much the same way the Gear Ball was made into the Gear Heart. You might remember the Darth Maul head that was also a Rubik's Cube? You could attach sectioned geometry to each face, making a puzzle that is also a statue on to itself when completed.
