
Subject: Complex cubes

Posted by [richgain](#) on Fri, 29 Oct 2010 16:50:56 GMT

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I was playing around with TopMod again to try and create some more hollow cubelets for puzzle pieces. I came up with one nice addition, the TwinCurlCornerCross which replaces the central square of the CurlyCornerCube (seen in the Quaternary puzzle) with a central cross. I have used this basic unit to create a version of Stewart Coffin's classic Convolution Puzzle.

Then I went a bit further in TopMod and started playing with additional features on the inside of the cube's skin. After a while, I realised that I had accidentally created a cube where the corners were completely disconnected from the faces, leaving a shape somewhat reminiscent of Virtox's Gyroid Bones.

I have ordered a test print of a 2cm Complex cube in metal and a WSF version of the Seldom Seen Cube made from 1cm complex cubes. One interesting feature of this puzzle (if it works) will be that corners of adjacent cubes should fuse and the face circles should also fuse, but each puzzle piece should consist of two independently moving parts. If this works, the central pins of one piece could snag in the central holes of another, adding a completely new layer of complexity to solving the puzzle. I'm really curious to see if this works!

I'm not completely sure that either of these will be successful (or even possible) but Shapeways never stop surprising me with the quality of their service.

richgain

Subject: Re: Complex cubes

Posted by [gibell](#) on Fri, 29 Oct 2010 20:51:19 GMT

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Interesting stuff! I wasn't aware of TopMod, I take it you find it useful?

This complex cube has a way of making even the simplest puzzles *appear* far more complicated.

If the two parts of each cubelet could actually be separated, then you could join the parts together in different ways to make all sorts of puzzles.

Subject: Re: Complex cubes

Posted by [richgain](#) on Sat, 30 Oct 2010 06:01:11 GMT

Hi George

TopMod is another great piece of free software. The current version 2 is tricky to get used to but has lots of supporting video tutorials that demonstrate its potential. It seems a little buggy though and if you don't know what you're doing and click the wrong thing it can freeze.

I went back and learned how to use it properly on version 1, which is still available on-line if you look carefully, and has another set of videos with commentary. After using this for a while I had a much clearer idea of how to use the program. Now I know what I'm doing, I'm back on version 2 and I haven't had a crash for ages.

It can't do everything, but there are some thing it can do easily that no other piece of free software gets even close to.

Richard
