
Subject: Centrifugal Puzzle Box

Posted by [Maundy](#) on Fri, 15 Mar 2013 15:54:34 GMT

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This arrived a few days ago... Ordered late last Thursday and arrived this Wednesday - the 4th business day after ordering!

[View the YouTube Video](#)

'Centrifugal Puzzle Box - This is a unique one of a kind 3D printed puzzle box that can store anything with dimensions of less than 39x39x13mm that is opened/solved in an intriguing way, by simply spinning the puzzle box on a flat surface will unlock the lid, however this is not that obvious:

On the lid of the box are six sliders of different shapes, these can slide along rails in the lid, there are also three buttons that can be pressed and released, however don't be fooled, these sliders and buttons have absolutely no purpose at all in helping solve the puzzle and open the box, these sliders and buttons are simply a distraction to confuse the user.

There is one clue towards the solution of opening this puzzle box for the user, firstly, you may have notice the numbers around the top face of the lid, these are actually coded in the format of "A=1 B=2 C=3" and actually decode clockwise starting from the number after the small circle to read "give-me-a-rapid-spin-to-unlock-my-lid", this may seem hard to notice, and it is, however I have designed an optional additional clue towards finding this clue: This 3D printed keyring (sold separately) contains embedded within it, using the support wax material of the Frosted Ultra Detail material, a QR code and the word 'CLUE' above it (just to make it that bit more obvious), if the user is stuck while solving the Centrifugal Puzzle Box they can choose to reveal this clue by using an IOS device with a camera (iPhone, iPad, iPod Touch 4g) to read the QR code by using a barcode reader application (tested with an app called 'Scan') reveal the text "A=1 B=2 C=3" on the device's display which should help the user decode the message on the puzzles lid helping them to solve the puzzle and open the lid.

The Mechanism -The mechanism used inside this puzzle box is a unique one and is best described in the youtube video, there are six 6mm ball bearings (not included) placed in the slots around the top face of the bottom half of the box, these ball bearings can move freely in their short channels, the lid has corresponding loops that lower into these channels when the lid is placed on. Once the lid is placed on and the box is given a shake, the ball bearings should all be at random points in their channels, some will be across these loops in the lid which will stop that loop from being pulled out thus stopping the lid being pulled off thus locking the puzzle. When the puzzle is spun, all the ball bearings travel to the outside of their channel so none are obscuring the loops in the lid meaning the lid can now be freely removed thus unlocking the puzzle.

Please note that six 6mm ball bearings are required for this puzzle to work, they can be purchased very cheaply on eBay.

The QR code 'Clue' is sold separately here.'

This was printed in FUD and by trapping the opaque support material within voids in the design with 'invisible' drainage holes (0.01mm diameter) this QR code and the word 'CLUE' was visible and readable.

File Attachments

- 1) [IMG_1598.JPG](#), downloaded 291 times
 - 2) [IMG_1623.JPG](#), downloaded 293 times
 - 3) [IMG_1607.JPG](#), downloaded 286 times
 - 4) [IMG_1614.JPG](#), downloaded 290 times
 - 5) [IMG_1605.JPG](#), downloaded 281 times
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Subject: Re: Centrifugal Puzzle Box
Posted by [Ray716](#) on Mon, 18 Mar 2013 20:18:08 GMT
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I love your QR code idea! It actually made me want to do a scavenger hunt with a bunch of different ones of those.

Ray

Subject: Re: Centrifugal Puzzle Box
Posted by [Tjsolo](#) on Tue, 19 Mar 2013 01:31:35 GMT
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This is totally awesome turned out amazing.

Subject: Re: Centrifugal Puzzle Box
Posted by [Maundy](#) on Tue, 19 Mar 2013 16:11:44 GMT
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Thanks, I'm glad you all like it!

Yes, the QR code did turn out very well, FUD is a lot more transparent than I thought it would be

at this thickness (2mm), however I cant claim the idea of trapping the wax material inside the FUD print, I first saw it in this thread by shop4stuff although it may have been done before this. To be honest though, the same kind of effect could be achieved by a laser cutter for a fraction of the price however it's always cooler if it is 3D printed.
