

**This puzzle is designed by Erhan Çubukcuoglu 2015
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Puzzler Puzzle box



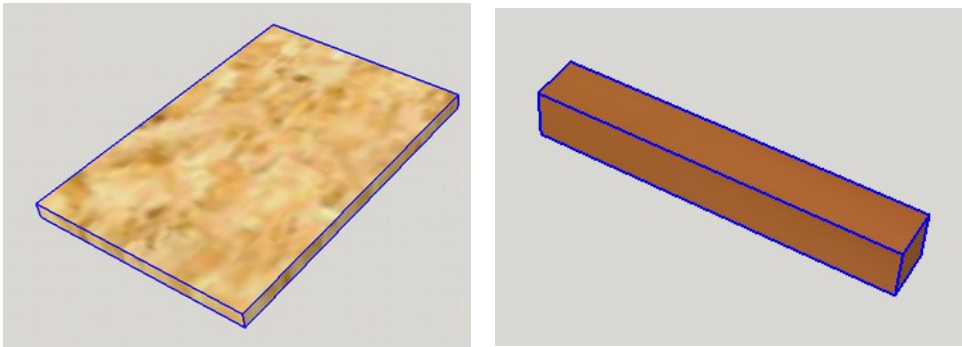
According to my blog stats a lot of people want make puzzle boxes but most of them search easy to make puzzle boxes. Unfortunately, puzzle boxes have some mechanisms and they aren't easy to make. Most of the puzzle boxes require very precise wood work. I designed this box a few days ago. I am inspired from an antique wooden rattle and a Chinese puzzle. My aim was designing an easy to make puzzle box. I made this box in my workshop in half day. This is a very easy to make puzzle box. Opening mechanism is very simple but confusing for a lot of people. This box has 6 removable panel.



I think everything is visible from photo. One of the pieces is removable Three small wooden pin and two small but very strong magnet keep in it's place this removable piece. My box outside dimensions are 100x100x100 mm and inside is 70x70x70 mm. There is a lot of space inside. For panels I used 5 mm olive and end pieces are made from 10x10 mm mahogany.

How to make your own puzzle box

For making this box you must prepare two type of pieces.



Panels are made of 5 mm olive. You can use any material. You can calculate dimensions according to your material thickness.

How to calculate dimensions.

First you must know your material **thickness "S"** that you will use.

After you must decide to your **box outside dimensions**. My box is 100x100x100 mm

Panel length is equal to your box outside dimension.

End piece dimension is "a". For this project 10 mm (I used 10x10 mm ready stock)

Panel dimensions are,

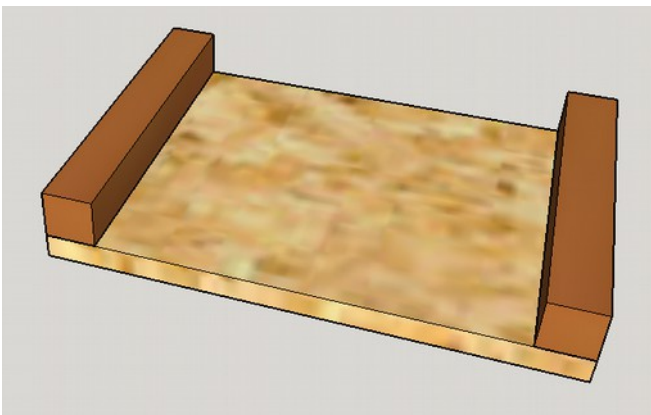
$L = \text{Box outside dimensions} = \text{For this box } 100\text{mm}$

$W = L - 2a - 2s = \text{For this project } 100 - 2 \times 10 - 2 \times 5 = 70\text{ mm}$

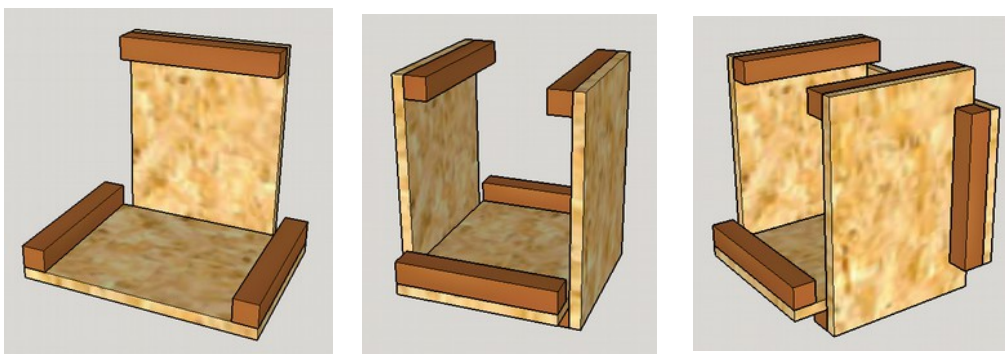
End pieces are 10x10x70 mm

You must cut 6 panel piece and 12 end piece. If you can all of them with one tool setup (table saw, miter saw etc) all off them will be exactly in same width.

I started to box assembly by gluing end pieces to box panels. Prepare five pieces as shown.



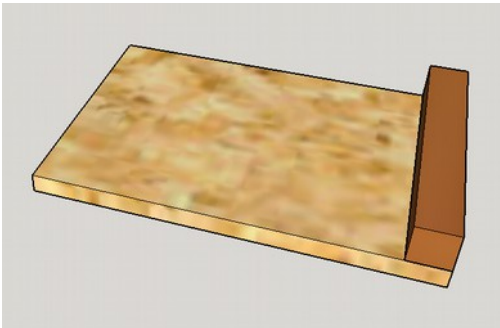
After box assembly, **for assembly don't glue panel pieces,**



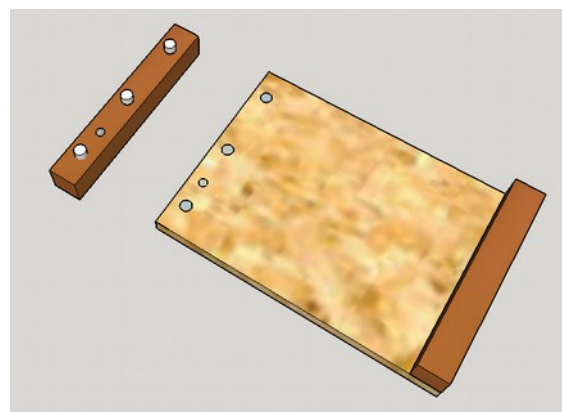
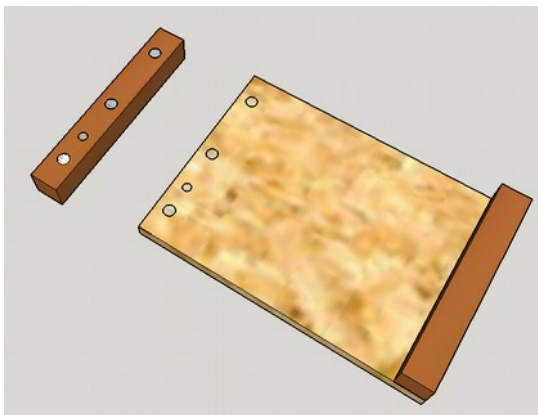
Five piece assembled,



Now you must prepare cover piece, first glue an end piece to the end of the panel piece.



After drill wooden pin holes and magnet holes to panel and to end piece. Hole centers must be precise. I used a compass for marking three pin hole center equally on both piece. After you can reset your compass and mark magnet centers. For my box, wooden pins are 4 mm and rare earth magnets have 3 mm diameter and 2 mm thickness.



In last step glue and **fix wooden pins to end piece.** **Don't fix wooden pins to cover.** For fixing magnets you can use epoxy glue, super glue etc.

Detail of cover piece,



I advise making some ornaments, wood burning etc on panels. Because when you put last piece on it's place some time finding it take too much time. I hope you like that box.