

644 Twister

A twister mechanism housed in a 6"x4"x4" box.

Turn the handle and the vertical shaft twists and turns back and forth. Change the cams in the box for different effects!



Rob Ives / robives.com



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You will need:

As well as some normal household tools you will need the following:

6" x 4" x 4" corrugated
card box

Corrugated card
offcuts

Brown paper tape



Pencil
(to act as the axle)

5mm paper
straw

8mm paper
straw

Cool melt
hot glue gun



Use the hot glue gun to fold and stick six of the eight flap inside the box.
Leave two flaps unstuck as shown below.

Use the paper tape to glue the two remaining flap to the box side.
This is your basic box. It also works with 7x5x5 boxes.





Use a ruler and pencil to mark a line between the two flaps.

Mark both diagonals between the box corner and the horizontal line to find the centre of the bottom section of the box.

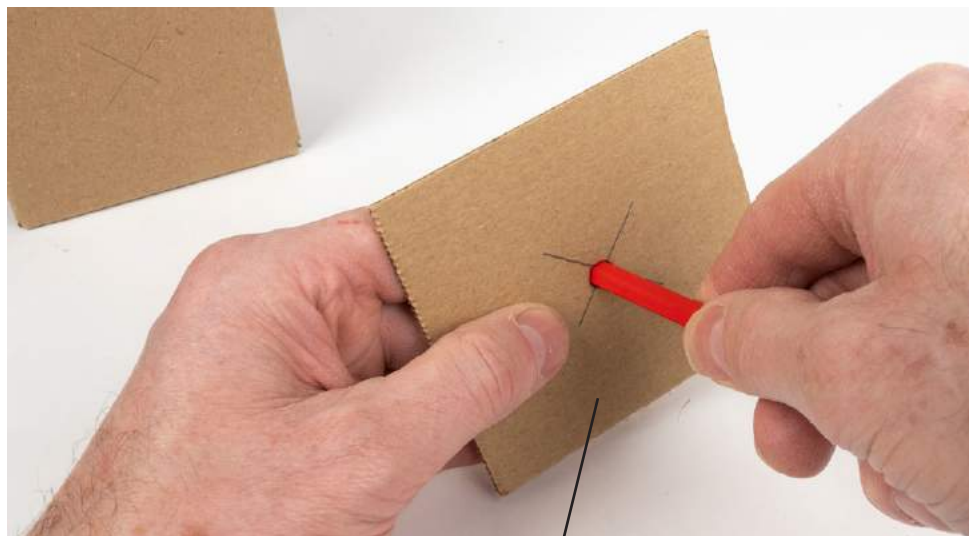
Repeat on the other side.





Cut out a piece of corrugated card the same size as the base of the box.
Important - The corrugations should run front to back for strength.

Find the centre by making the diagonals then make a hole big enough for
your 8mm paper straw

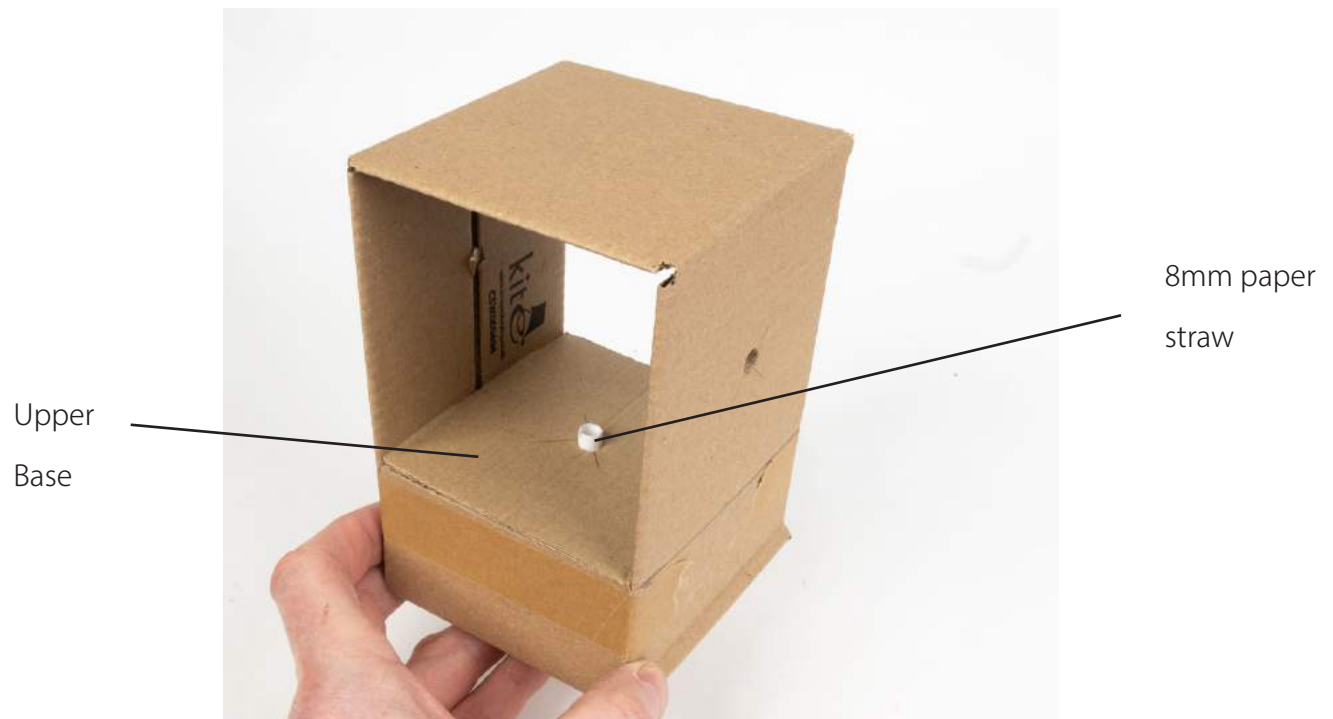


Upper Base



Find the top centre and make a hole for the 8mm straw.

Fit the upper base you have just made into the box and tape it into position. Cut a length of 8mm straw just a little too long and thread it in position

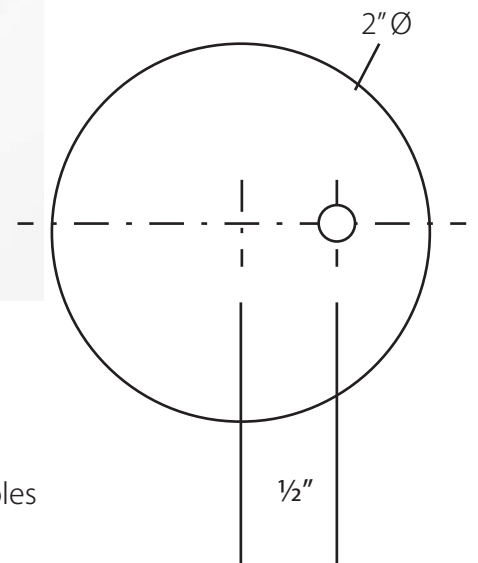
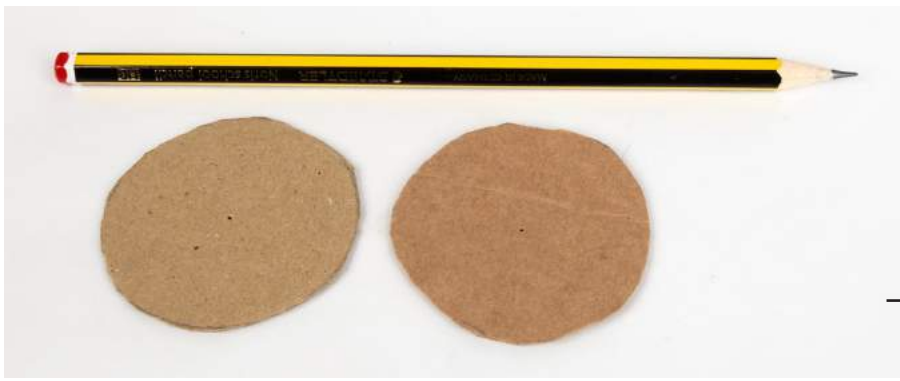




Tack the straw into place with the hot glue gun.

Cut a disk roughly 3" , 75mm in diameter. Make a hole in the centre big enough for the 5mm straw. Drop the 5mm straw down through the 8mm straw, thread the disk into place and tack it into position with the hot glue gun. Make sure it is flat to the box but free to move





You can experiment with all sorts of different cams. In this example we'll use circles with off-centre holes. Cut out two and make the holes with the point of a pencil.

Thread the pencil and cams into the box as shown. Note that the cams are pointing different directions. Glue the cams into place.





Make the handle from three layers of card cut to the same size and taped together.

Tape it to the pencil



Tape in a short section of pencil or dowel to complete the model





Add your character to the top of the straw. Turn the handle to watch them dance and twist!
Try different shaped cams for different effects. You could use a single circular cam to make the vertical shaft to turn continuously in one direction.