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Paper Ball Tracker

Templates to build a ball tracker out of paper in two versions (blank & steampunk)



PDF 4630-EN

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PRINT SETTINGS

Please use Acrobat Reader to print and make sure that the settings 'Actual size' and 'Auto portrait/landscape' are selected.

SAVE PAPER & TONER

Only print out the pages you need.

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INTRODUCTION

Paper Ball Tracker

A ball tracker or ball drop is impossible to resist: A ball, driven by gravity, rolls steadily downward on a predetermined path, passing through curves, funnels, and loops until it reaches the bottom.

Depending on the design, the ball will fall at different rates and you can observe different amazing effects as it rolls. Depending on the inclination, the ball sometimes rolls quickly or sometimes slowly through the track.

When playing with the ball tracker, children's perception, cognitive skills and motor skills are developed in a fun way. Building and assembling the ball tracker requires and improves spatial and visual perception and logical thinking. A self-made ball tracker creates a tremendous sense of achievement.

The design here is intended to be built with the help of an adult. The design of the track is completely up to you and can be made as big or small as you like. You can add as many different track elements as you want. This ball tracker is available in the following two versions:

Blank Version

The blank version creates a stark, kinetic structure, in which its shape is clearly perceived. Print all elements on white or colored cardstock. You could print the different elements in different colors, e.g. all support elements white, funnel elements pink, curve elements light blue, etc.

Steampunk Version

The steampunk version includes graphics like screws and rivets and looks like it was built with a metal construction set. Steampunk is a style phenomenon in which futuristic technical features are combined with elements of the Victorian age. You could say a futuristic retro look. Technology and mechanics around 1880 are idealized because their parts, such as screws, rivets, gears and drive belts, are still easily recognizable - in contrast to computers, whose structure and inner workings are not so well known.

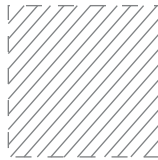
Release the ball at the top and it will roll down, moved by gravity alone. And when you bring it back to the top, it begins all over again... W O W !

Micha Labbé

HOW TO MAKE IT

Paper Ball Tracker

KEY



Lines to cut

Lines to fold

Gluing surface

PART I - BASIC STEPS

1



Print out your chosen templates on heavy printing paper.

2



Carefully cut out all parts.

3



Fold the templates along the dotted lines. The printed side will later face outward.

4



Carefully cut the templates along the solid lines and fold along the dotted lines.

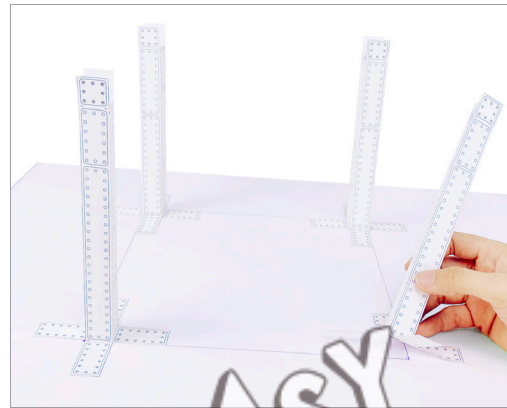
PART 2 - THE BASIC STRUCTURE

1



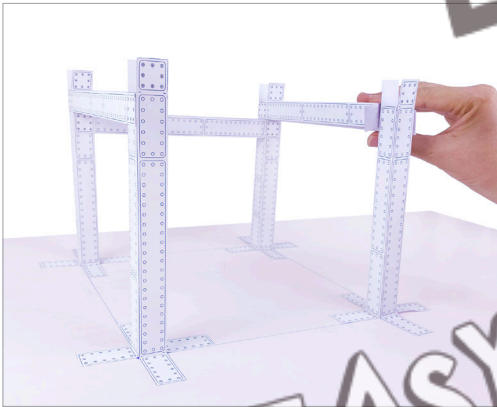
Glue the columns together at the indicated gluing surface. Glue the crossbars and support beams together in the same way.

2



Use a large piece of poster board as a base and draw a 9 x 9 in (24 x 24 cm) square on it. Glue the four columns in the four corners of the square.

3



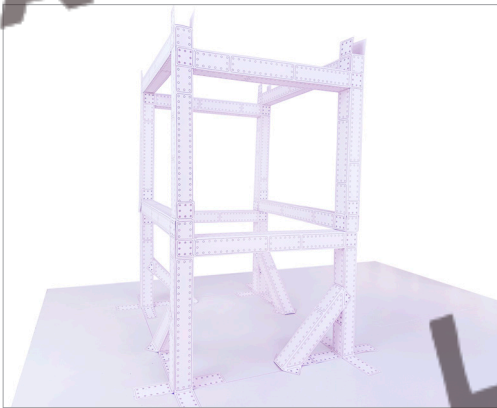
Connect the four columns with the crossbars.

4



Glue a support beam to each column to make the structure more stable. Now you can continue to build upwards by adding more columns.

5



Continue to glue on 4 columns at a time and connect them with crossbars until it's as tall as you want.