Cardboard 'Jacob's Ladder' - Tumbling Gorillas

by Kryptonite on August 9, 2009

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intro: Cardboard 'Jacob's Ladder' - Tumbling Gorillas One may have heard of a Jacob's Ladder, and thought; I want one!!! Well not having access to enough materials to go all the way to heaven, I made the toy! It's an extremely fun and intriguing toy, the 'gorillas' tumble and fall to the bottom when you tilt the top 'gorilla', following and flipping down each other.

Easy to make and quite fun, I'm sure you'll like it, and after showing your friends and work mates, you'll have people queuing for one!

Note:

The drawings on my Jacob's Ladder are not original, but I thought it would be a good idea to post them just in case others are interested in doing likewise.

Another Note:

You tube video coming hopefully soon, but Windows Movie Maker doesn't seem to like my current video format...











step 1: The Materials

For making something, it's quite hard if you don't have anything to make it with, so, for this Instructable you will be needing:

Materials:

Cardboard, the layered or corrugated type is fine. Thin (3-5mm) wide ribbon Glue, preferably strong and will hold after a fair bit of playing around with.

Tools / Equipment:

Pencil Ruler Scissors

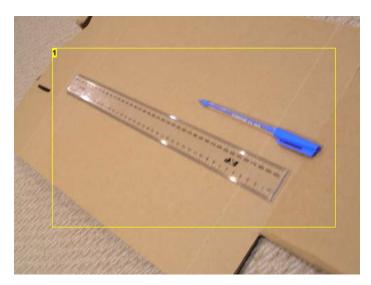


Image Notes
1. Ruler; check. Pen; check. Cardboard; check. Glue comes later, and scissors are hiding.

step 2: The Cardboard Pieces

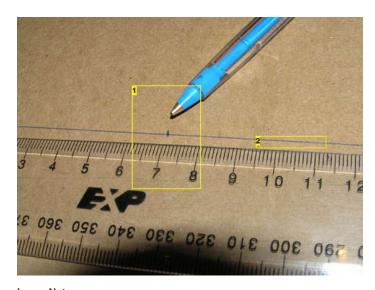
The Jacob's ladder is made up of 12 cardboard rectangles, measuring 7cm by 8cm each. My cardboard was blank so I can add a design at a later date, about 2mm thick and came from a box which once had a bench rest in it.

Get your ruler and pen, and mark 7cm wide and 8cm long, or 2.8 inches by 3.2 inches, and cut it out, repeat 12 times.

If you want to decorate them then this is this time, if you do it later then it's just impractical with the glue or ribbon in the way.

Next is to lay the twelve out in two columns, length ways. Mark the left side so you can tell which side is the top and bottom, and the right side the same but differently, so you can tell which ones are in the left and right column. Flip each on upside down, if you flip it outwards I find it much easier, because when when you get to flip it inwards, it's all in the same position.

Finally is to mark the undersides so when you put the ribbons on, they're all in the right place. Mark 1cm in from both of the 7cm sides, and then half way between. Run a line all the way up. In the pictures I only marked in a bit, but I recommend marking the whole way through.



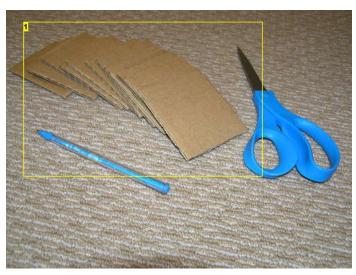


Image Notes 1. 7cm wide...

2. 8cm from the edge of the large piece of cardboard.

Image Notes 1. Finished result after cutting.

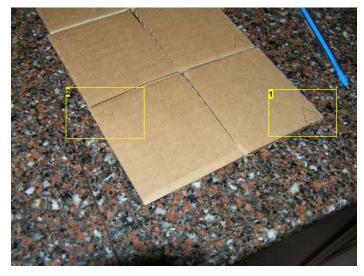


Image Notes

- 1. Right column, bottom right hand side I marked with a triangle.
- 2. Left column, top left hand side I marked with a circle.

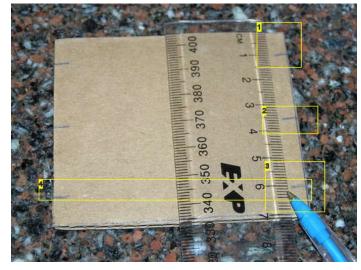


Image Notes

- 1. 1cm in.
- 2. 3.5cm, half way.
- 3. Lastly, 6cm.
- 4. Although I didn't follow the whole way through, it's recommended.

step 3: Organising and Glueing

The next steps are quite hard to explain, but visually it's fairly easy, I'll give it a crack any way.

As before, the cardboard is layed out with the three marks on top, left side the "circle" side, and the right side as the "triangle" column. I will talk like this because that's how I have marked each column, and if you do the same you won't get confused if you swap which side.

Glue the top middle mark on column 'circle' half way down in a single, straight line and press down your 16cm long ribbon and leave the long end aiming upwards. Fold it under and with the last bit of tail over the second from the top in the same column, make sure it is straight (not twisted) along the cardboard, pull it down firm and glue it. That's the first one!

Glue the next ribbon (pink in picture 2) in column 'circle' in the same simple method, and then the brown ribbon with the same two cardboard squares. As you may have noticed, in column 'circle', the 6 panels are glued together in 3 sets, and you have just completed the first one. Set it to one side and do the next lot in that column, then finally the bottom one in the same manner.

Column 'triangle' is slightly different, the top and bottom panel are not glued to anything, but the middle four are. Follow the color co-ordinated pictures again to see where to glue.

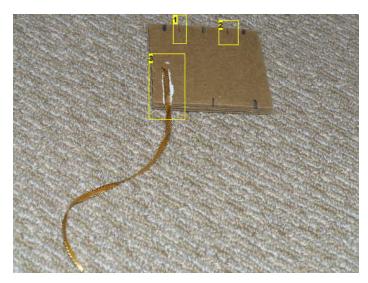




Image Notes

- 1. Mistake, disregard this.
- 2. Another mistake
- 3. Get your ribbon, about 14cm long, and glue it half way up along the marked line.

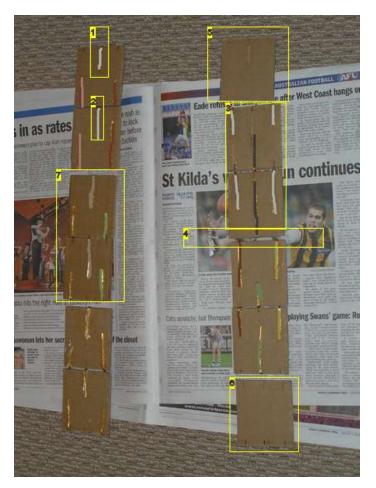


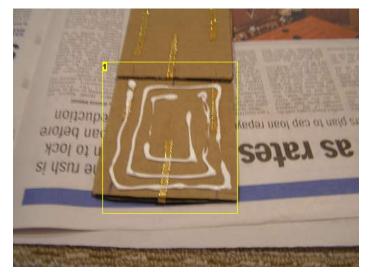
Image Notes

- 1. Goes behind here ...
- 2. And pops back here.
- 3. After gluing, these two panels are together...
- 4. With a gap here.
- 5. Blank piece.
- 6. Another Blank piece.
- 7. One 'Set'.

step 4: Glueing together

Lastly is to glue the notorious column 'circle' and column 'triangle' together.

Now you should have the two columns layed out as before, now get your top 'set' in column 'triangle', and the top blank card of column 'circle', smother the top side of the blank card with glue, and flip both inwards together, with the top card of the set of two, joined with the blank card. Then get the top set of column 'circle' and the bottom card of the set you just glued, lather with glue and join, repeat all the way to the bottom.



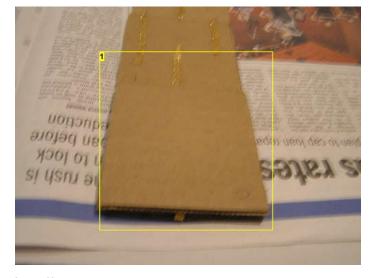


Image Notes

Image Notes

http://www.instructables.com/id/Cardboard-Jacobs-Ladder-Tumbling-Gorillas/

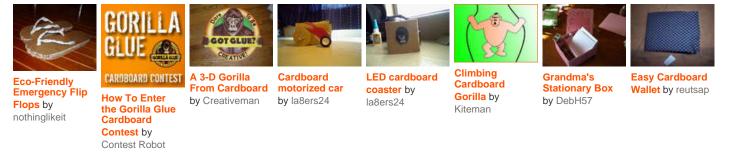
1. Lathered with glue. This is the view from the top, so this is in fact the top panel in 'triangle' column.

step 5: Using

Believe it or not, some are mystified as to how to use it.

Grab the top card (either end) along the sides, half way. Tilt to one side so it's made a full 180 degree turn from where you were holding it, if nothing happens, start again but tilt the other way.

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Comments



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1	canida says: If you upload your video to YouTube and embed it, more people will be able to see it. Nice job. ;)	Aug 18, 2009. 11:29 AM REPLY
ŧ	Kryptonite says: Ok then, thanks. I have to make another video any way, so thanks for pointing this out.	Aug 19, 2009. 12:23 AM REPLY
R	impulse94 says: I like your gorilla drawings you should post them so we could use them!	Aug 18, 2009. 9:15 AM REPLY
ŧ	Kryptonite says: Ha ha, ok then. They're not original I must admit, I'm a terrible drawer if I'm doing it straight of the top of my head.	Aug 19, 2009. 12:22 AM REPLY
-	Kryptonite says: First Instructable, I feel pretty good. I must follow Zeroth's law much more closely now.	Aug 18, 2009. 2:57 AM REPLY