

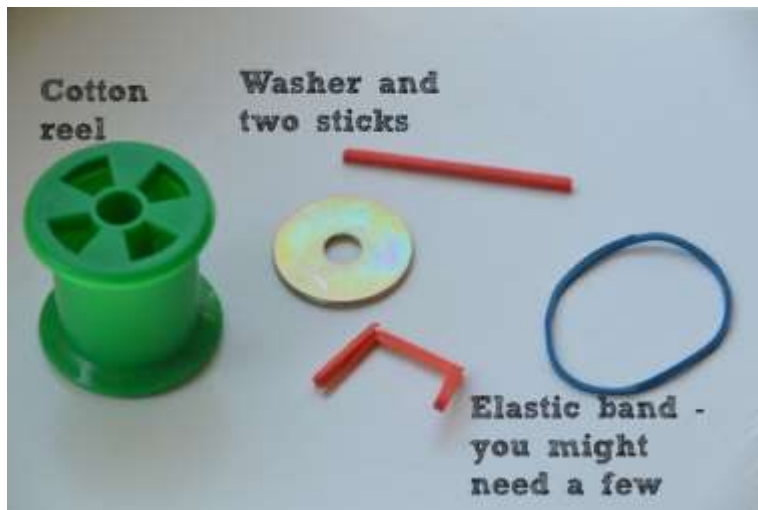


Provided by Marianthi Arvanitidou from Greece



HOW TO MAKE A COTTON REEL CAR

This was my first attempt at making a cotton reel car and it didn't work quite as well as I hoped and definitely didn't look as good as I'd hoped, but is a great little engineering project with lots of possibilities.



Why does it move?

Winding up the elastic band causes it to twist. The other end of the elastic band is attached to a matchstick that has been snapped and slotted into the cotton reel's holes, so it cannot freely rotate. As the band twists we are

stretching it causing it to store energy. (We know it is doing this because if you let it go the elastic band untwists). The more we twist it the more energy is stored. When we put the cotton reel down the elastic band untwists. Because our handle is quite long it cannot untwist fully, so the other end of the elastic band untwists, and because our broken matchstick is secured to the reel the reel starts to rotate. This then drives the whole assembly forward. Try not to over wind as the elastic band may snap. I'm going to try a small piece of candle instead of the washer, which will create more friction between it and the cotton reel. We could try adding something over the edges of the cotton reel to give it more traction. Can you think of anything else?

Film Reel

How to Make Spool Hanger Games



This is a really easy craft to make, just bend a metal clothes hanger to form a hoop, as seen in picture a. Make a kink on the opposite side of the hook part of the hanger. This kink is to make sure that the string won't slide when you attach it to the bottom. Now you can attach a spool to one end of string by tying a knot. Then tie the other end of the string to the kink that you made. Now, to play the game, hold the hook end and flip the hoop to make the thread spool pass through the center of it (sketch b). If you touch the sides of the hoop, then you are disqualified.

[Photo Reel Album](#)

