

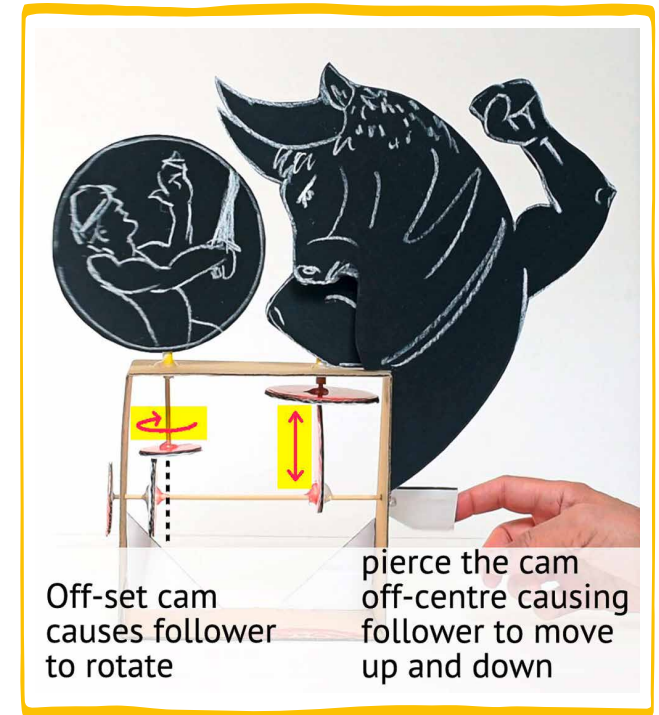
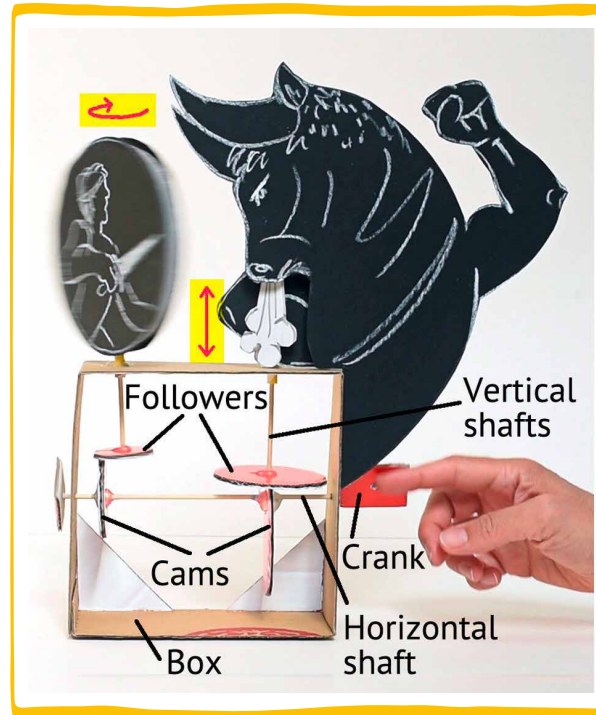
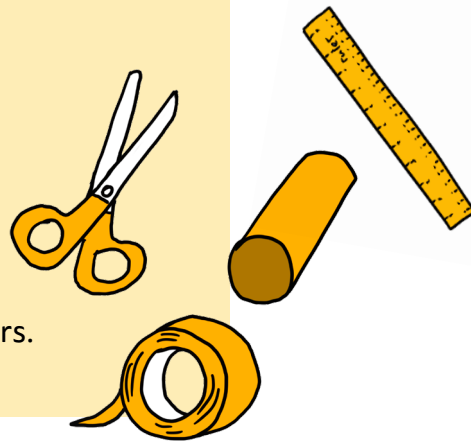
Let's build an automata!

Time to crank it up and get making! Build your automata - that's a mechanism with moving parts which can operate rotation and up and down movement. You can make use of one or both of these movements to explore ideas for your invention.

To make your own automata follow the how to guide on the next page!

You will need:

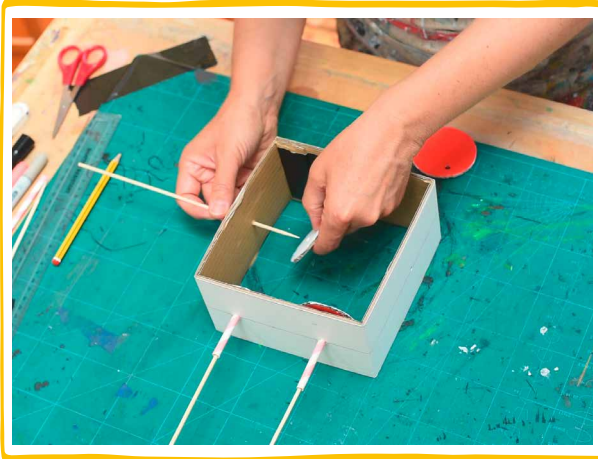
- Cardboard
- Card
- 3 x bamboo skewers
- 1 x straw
- Blu-tack
- UHU glue (optional: hot glue & gun)
- Plus drawing / colouring materials, ruler, pencil and scissors.



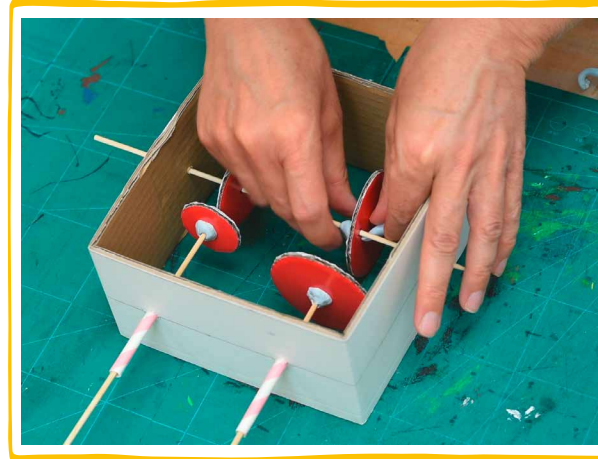
In this example, Theseus darts around the angry Minotaur whose blowing hot air down from his nostrils

You can watch this example being made at arthoppers.co.uk/mmm

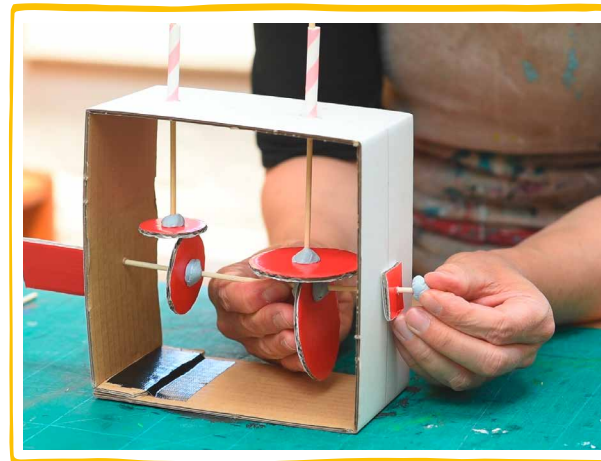
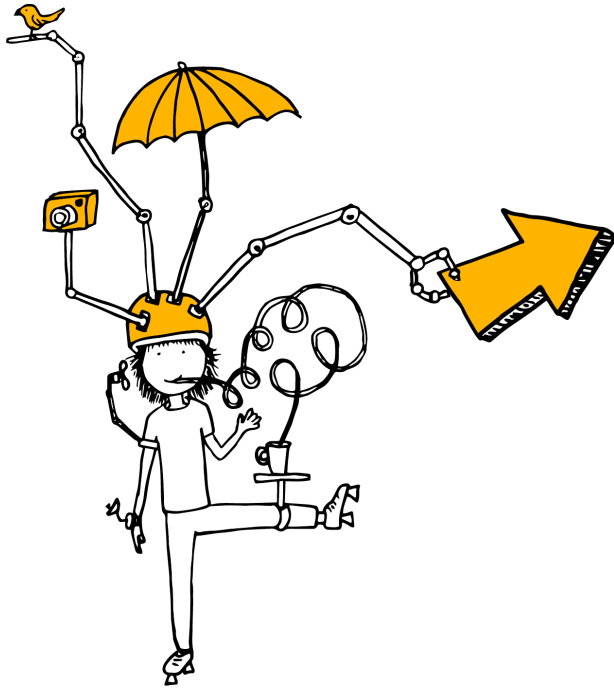




7. Push a third skewer through the middle of one side of the box. Pierce one cam in the middle, the other off centre, then push out through the side of the box.



8. Line up the cams below the followers. Firmly wrap blu-tack around both sides of each cam against the shaft to fix them in place. Test / adjust as needed.



9. Glue a rectangle of cardboard to one end of the horizontal shaft to make a crank or handle. Add a stopper to the other end to prevent the shaft sliding out.



10. You're now ready to add your invention idea to the top of the automata. Get creative, have fun and enjoy experimenting with your moving machine!