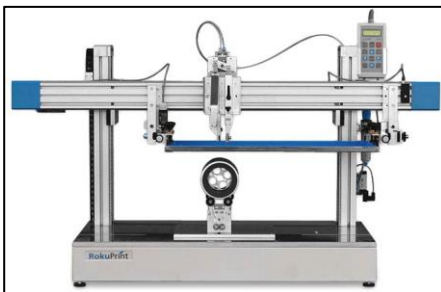


Cam and Follower: Printing

Background

Cam and followers have many applications. They are widely recognized for their use in engines, but can also be found in wall clocks, lathe machines, hydraulic systems, and even textile machines that uses the push and pull movement to stitch clothing. Another application for cam and follower mechanisms is in screen printing. The linear motion of the follower is used to put the paper in place and to press the ink in place.

Screen printing is a technique that uses mesh to transfer ink onto a surface except in areas blocked by a stencil. It is one of the oldest forms of printing, dating back thousands of years. Screen printing is very versatile and can be used to add design to materials in any shape, size and thickness allowing it to be used in many ways, in many industries such as:



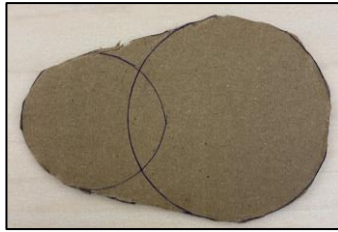
- Graphic design
- Clothing
- Medical devices
- Signage and displays
- Merchandise and sports products

Materials

- Shoebox (or similar sized box)
- Cardboard
- Wire cutters/garden sheers
- Scissors
- Popsicle Stick
- Skewers
- Straws
- Pencils
- Lids (to draw circles)
- Beads
- Hot glue gun

Procedure

1. Poke two holes in the sides of the box, opposite of each other and about halfway up the sides of the box. The holes should be about 1inch from the front. Make a top hole in the centre of the box that is also about an inch from the front.
2. Glue 1inch sections of straws into the holes.
3. Make a cam using two bottle lids of different sizes. Cut it out and poke a hole somewhere near the middle of the larger caps circle.



4. Put a skewer through the cam and thread it through the two side straws. Glue it in place.
5. Place a small piece of cardboard on the popsicle stick, fold it to make a lever.
6. Rotate the cam to get the high point and the low point of the cam. Glue the cardboard end of the lever at the centre of the two points. Make sure the lever rests on top of the cam.
7. Glue a bead on the skewer and slide it through the top straw hole. This is the follower.
8. Glue two more beads to the outside of the skewer on the side to keep the cam in place.
9. Decorate the follower.



Sources

Screen print machine picture: <https://www.decotechgroup.com/screen-printing/small-format/rp-22/>