

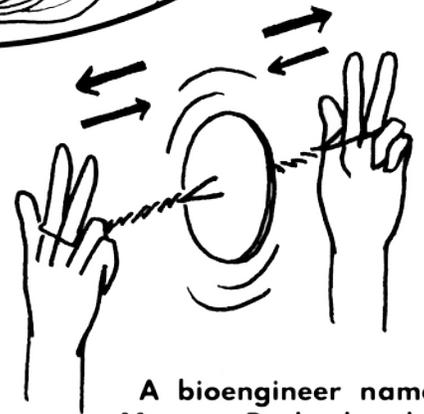
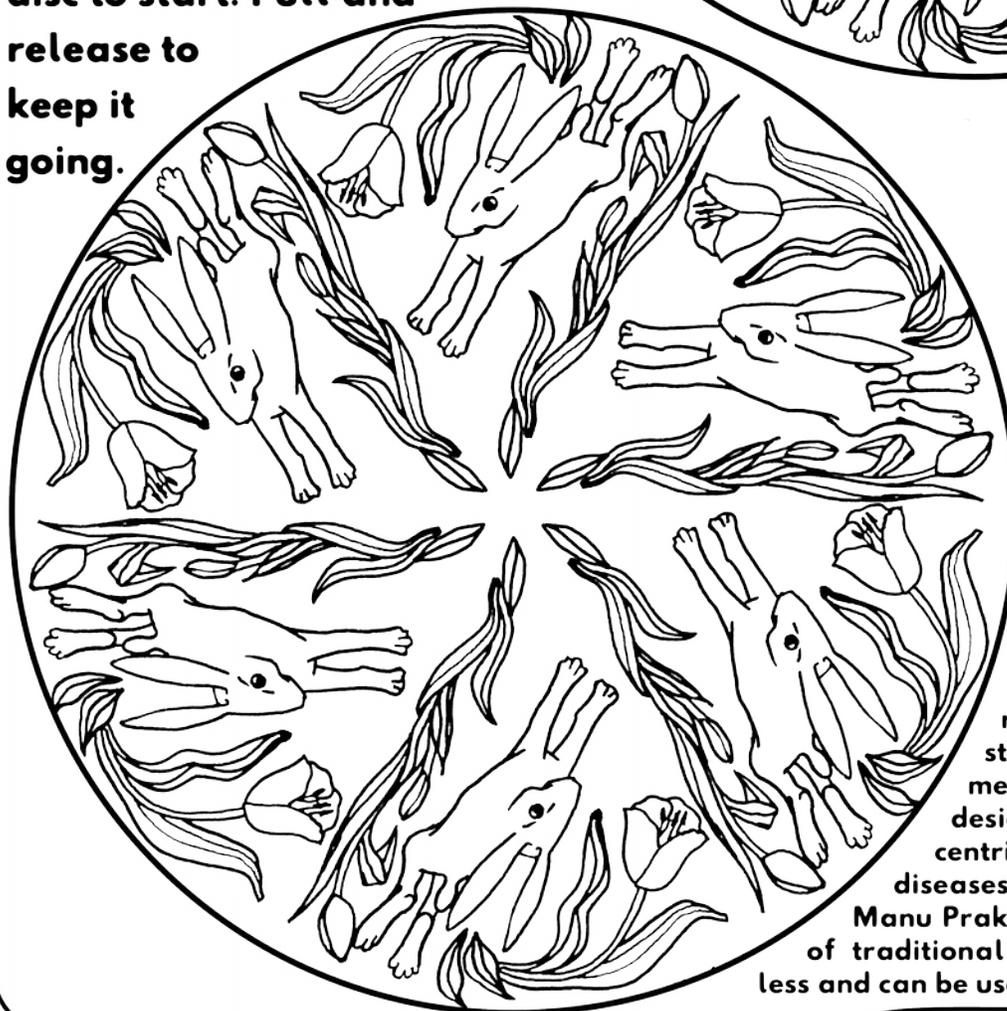
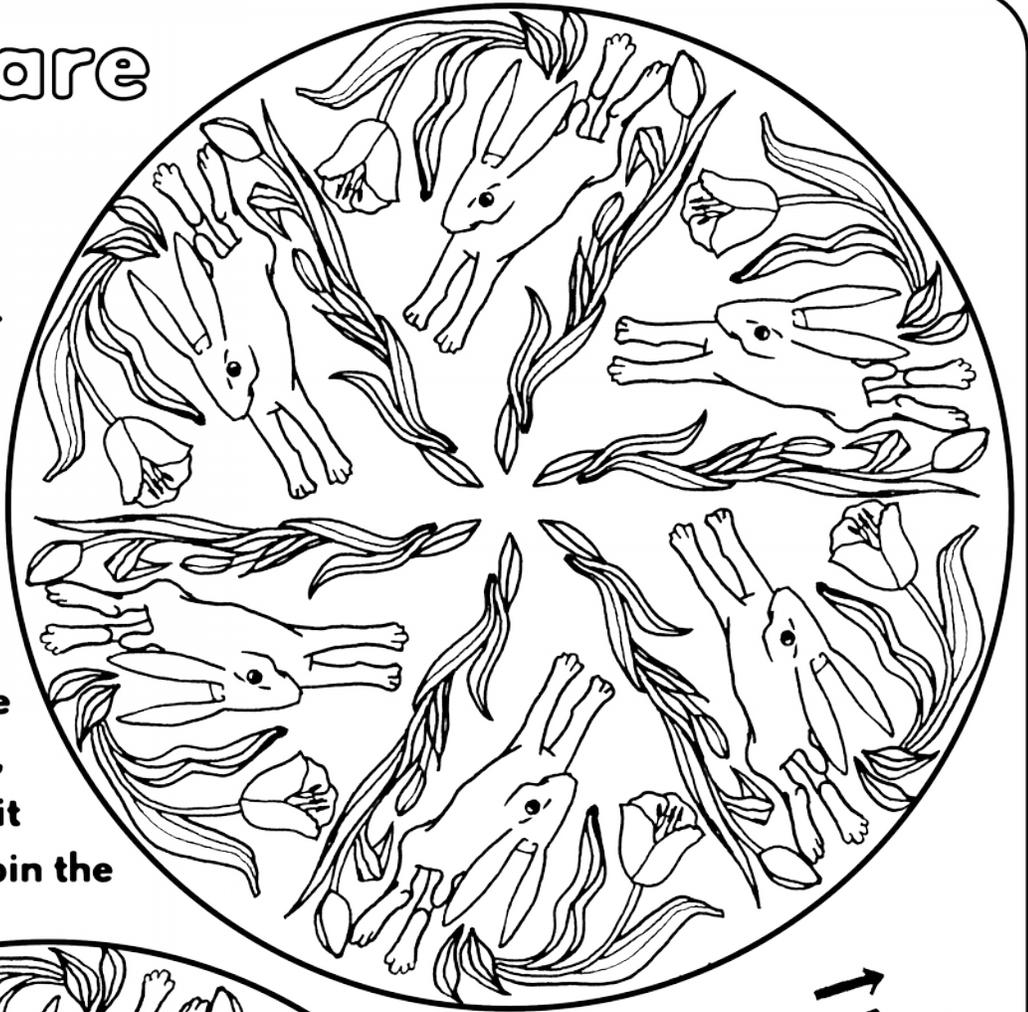
# Spring hare Spinner

After you have colored the circles, cut them out. Glue one circle to a piece of cardboard. Cut out the cardboard circle, then glue second circle to its other side.



Make two holes in the disc at , and thread it

onto a loop of string. Spin the disc to start. Pull and release to keep it going.



A bioengineer named Manu Prakash has worked with a team of engineers and mathematicians to understand how the whirligig works. When he measured the speed of one made using a button, he found that it reached 10 to 15 thousand rotations per minute (rpms). After studying and working to perfect the mechanics of the toy, they have designed a human powered paper centrifuge that can be used to detect diseases such as malaria.

Manu Prakash's lab focuses on the redesign of traditional medical tools so that they cost less and can be used outside of a lab.