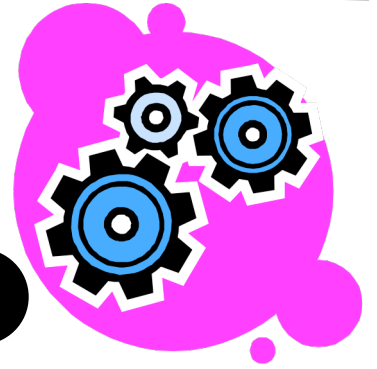


# DESIGN CHALLENGE: KINEMATIC FANATIC

## KINEMATIC FANATIC:

Can you design and build a system of gears and kinematics to create a hand-stamping machine?



## DESIGN!

- 1 ASK:** Explore the Clark Models in the exhibit cases and the printed models available. Compare some of these models to the virtual collection on the computer provided. How many of these mechanisms and systems do you recognize from machines and tools you use each day?

Taking what you have learned from the models, explore the gear toys provided noting their similarities to some of the models in the cases.

- 2 IMAGINE:** Think of all the different ways you can connect the gears to change motion in different ways. Brainstorm some ways to create a hand stamping device.
- 3 PLAN:** As a team, pick the design ideas you like best, and plan which gear pieces you will need. Sketch your design on the back of the worksheet and write down which pieces you are using.
- 4 CREATE:** Build your invention according to the plan you created with your team. Test your hand stamper. Does it work correctly? Which of the existing gear models do you see in your design?
- 5 IMPROVE:** Once you have gotten your design to work, see if you can think of ways to make it stamp faster or slower. Can you make the design more comfortable when it stamps your hand?

# SKETCH YOUR DESIGN BELOW!



Design Challenge: Kinematic Fanatic  
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