

# Corrugated Gears

## MATERIALS

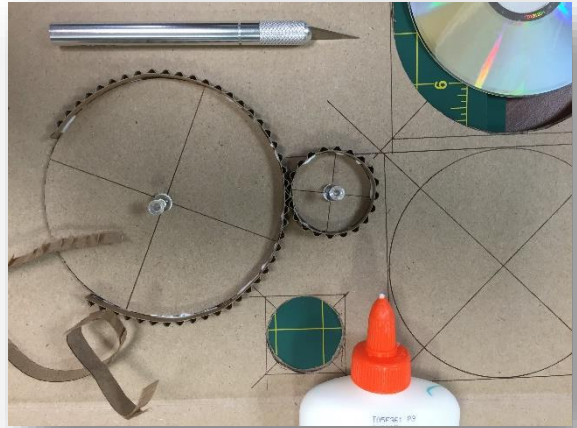
- corrugated cardboard
- roofing nails
- tacks

## TOOLS

- X-Acto knives
- self-healing cutting mat
- ruler
- square
- pencil/pen
- various ROUND objects as guides

## CONNECTORS

- Elmer's glue



## Instructions:

Trace two circles of different sizes on corrugated cardboard. Find the center of the circle and mark it.

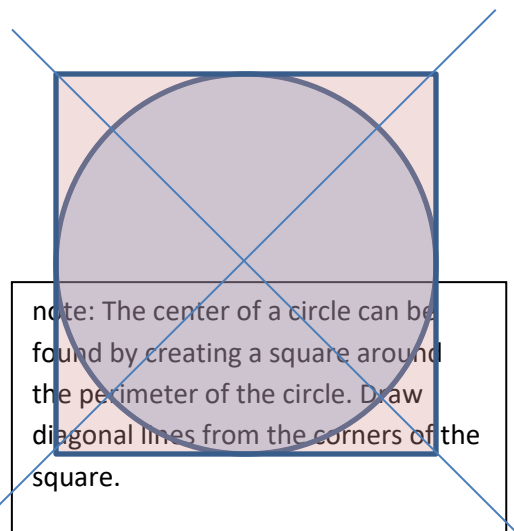
Cut out the circles. Be precise. Cut strips of corrugated material about  $\frac{1}{4}$ " to 1" or more. Carefully remove one side of the paper, revealing the round corrugated center. That will be the teeth in the gear.

Glue the strip around the perimeter of the circle. It will take about 15 to 20 minutes to set. Don't use too much glue!

Use the roofing nails or push pins as axles and fix the gears to another scrap of corrugated board.

## Questions:

- 1) When you turn the BIG gear, how many turns does the little wheel go around?
- 2) What contraption could you make if you attached a motor? Wind up rubberband?
- 3) Could you create a flexible paper band as a toothed drive belt?



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