

## Cardboard spinner

Due Thursday 3/28, Friday 3/29

Design and laser cut a structure that contains a wheel that spins freely on a toothpick axle without you holding onto it. In other words, you create a structure that holds a wheel; you can set it down on the table and then spin the wheel easily with your finger, the wheel spins freely, and the whole thing does not fall over.

### Requirements:

- There is only one wheel, and the wheel is 6 cm across (3 cm radius).
- The wheel rests in or sits on a structure that holds itself together without tape or glue.
- You can spin the wheel with your finger, and it spins freely without knocking over the structure that holds it.
- The wheel spins freely (meaning, you spin it with your finger, and it goes for a while).
- The structure is made of pieces that are all connected with slots.
- Your name and a cool design are on the wheel, engraved in black strokes.

We will be making this out of the same cardboard we used for the vehicles and the 7 x 9 project. This cardboard is 1.8mm thick.

Make your project in an area less than 3 by 6 inches.

When you are ready to try something out, email it to the laser cutter. Before you email it, make sure the following are true:

- All fill is off
- All cuts are 255 red with a stroke of .1 mm
- Engraving is black with a stroke of .1 mm
- If you select all in Inkscape, the area of the selected objects is less than 3 by 6 inches

It is OK to have to try to laser cut and assemble more than once. Once you get your creation working, show it to Mr. Hays and turn in the Inkscape file for this assignment on the Google Classroom.