

Wheel of fortune



duration: 30 - 60 minutes
age: from 7 years

Make a battery powered wheel of fortune

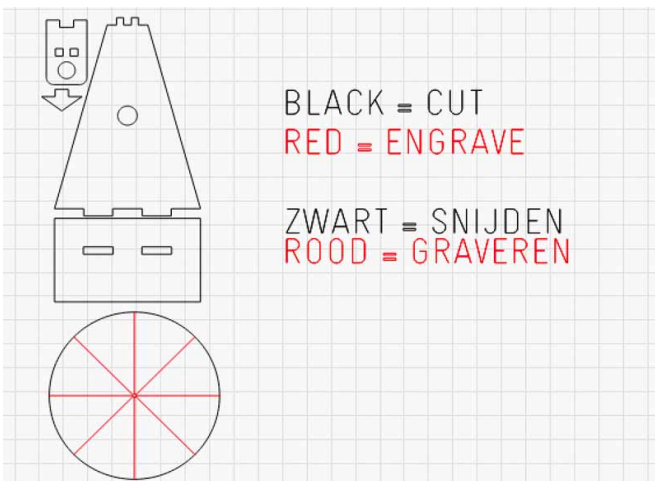
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tools

- ☐ Laser cutter
- ☐ Soldering iron
- ☐ Wire cutters
- ☐ Wire strippers
- ☐ colored markers
- ☐ small file
- ☐ glue gun

materials

- ☐ Plywood, 1/8" (3mm) thick
- ☐ woodglue
- ☐ soldering wire
- ☐ AA or AAA battery holder
- ☐ Battery
- ☐ DC motor (reclaimed from an old cd player or similar)
- ☐ glue sticks for the glue gun
- ☐ A small momentary push button
- ☐ electrical wire



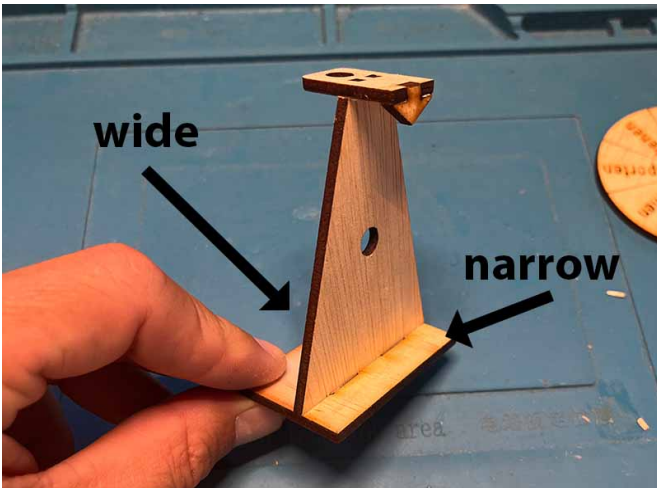
1 Edit the design

- Open the template in your laser-cutter software. (I use Lightburn)
- Edit the hole in the disk to snugly fit the shaft of your dc motor.
- Remove lines until you have the number of facets you want.
- Add text to each of the facets.



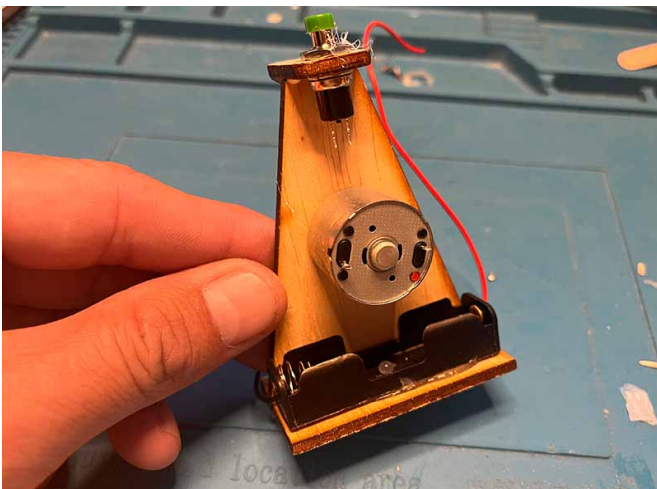
2 Cut your design

- Use the laser cutter to cut out your design.



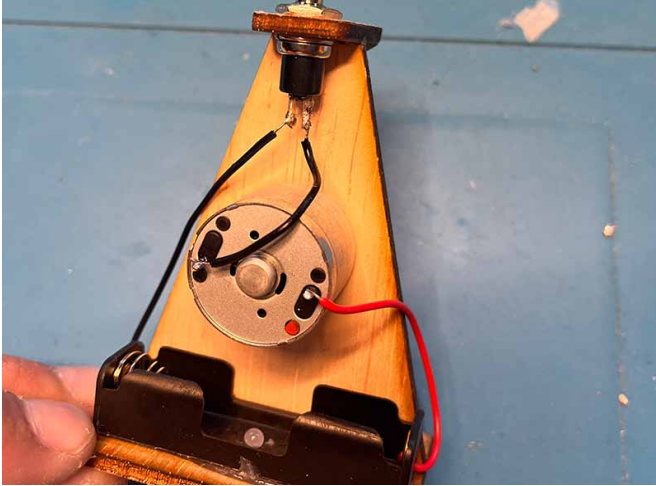
3 Assemble the base

- If pieces don't fit properly, use a file to make them fit.
- Use some glue to put the base together. Make sure to have the arrow on the narrow side of the base.



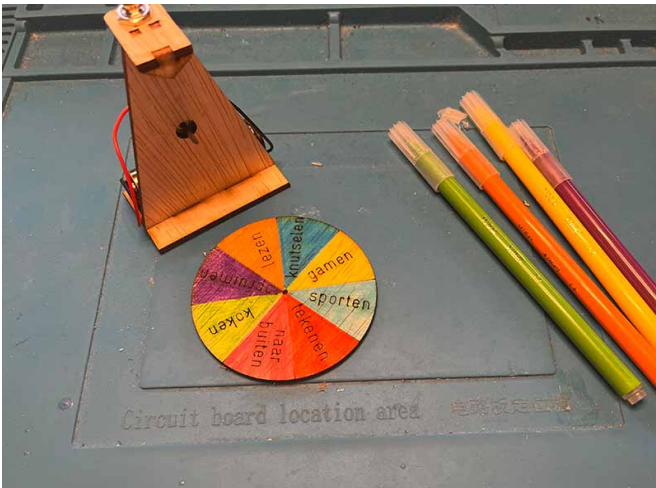
4 Attach the motor, battery and button

- The motor should be on the wider side of the base.
- Use the glue gun to glue the motor to the base. Make sure not to glue the axle.
- Use the glue gun to glue the motor battery holder to the base. (on the same side as the motor)
- Fit the button through the hole in the top and screw it tight.



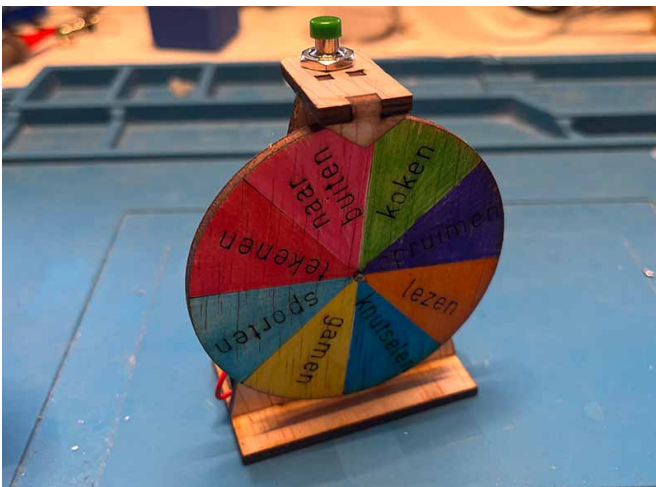
5 Soldering

- Solder the red wire from the battery holder to one terminal on the motor.
- Solder the black wire from the battery holder to one terminal on the button.
- Solder a wire between the remaining terminals on the motor and the button.



6 Color your wheel

- Use the markers to give the wheel a bit of colour.



7 Attach the wheel

- Push the wheel onto the shaft. Make sure you don't damage the arrow on the top

8 You're done!

- Test your fully electric wheel of fortune!