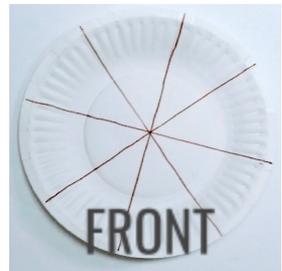


PART 1: PREPARE YOUR MATERIALS

- 1 x AA Battery Holder (socket-type)
- 1 x AA Battery
- 1 x 130 DC Motor with Flying Leads
- 1 x DC Motor Coupling
- 1 X Cardboard Box
- 1 x Round Paper Plate
- 3 x Double-Stick Foam
- Ruler
- Pens/Markers

PART 2: CREATE YOUR WHEEL

A) Create a wheel using a round paper plate. With a pen/marker and ruler, draw lines dividing the plate into 8 equal slices.



B) Flip the plate over and find the center of the back of the plate. Mark the center of the plate with a pen/marker.

C) Place a piece of double-stick foam over the center marking of the back of the plate.



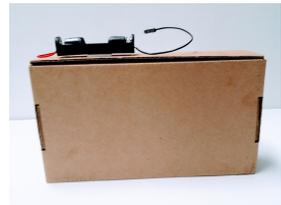
D) Stick a DC motor coupling to the double-stick foam on the back of the plate. *(If you do not have a DC motor coupling, you can use a bottle cap with a small hole drilled in it as well.)*

PART 2: ASSEMBLE YOUR ROBOTIC WHEEL

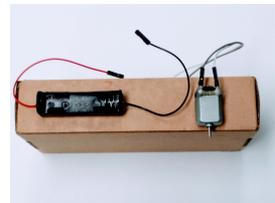
A) Put a AA battery into the battery holder. Make sure to match up the end with the red wire to the positive (+) side of the battery and the end with the black wire to the negative (-) end of the battery.



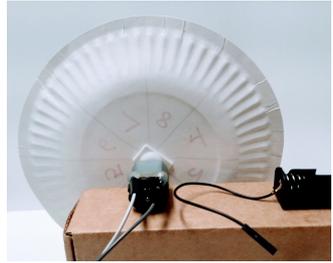
B) Attach the AA battery holder on the top of the box using a piece of double-stick foam.



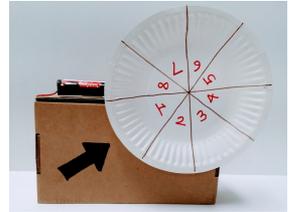
C) Attach the motor on the top of the box using a piece of double-stick foam.



D) Attach the wheel to the shaft of the motor. Trying spinning the plate with your fingers. It should spin, but not fall off the motor.



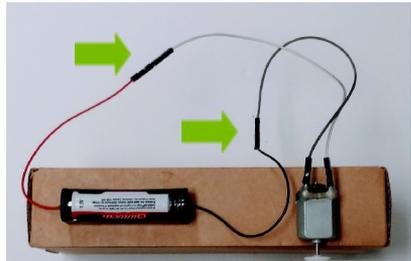
E) Draw a large arrow on the box. The arrow should be pointing at the plate.



PART 3: SPIN THE ROBOTIC WHEEL

A) Insert either wire from the DC motor into the red wire socket of the battery holder.

B) Turning On the Wheel: Insert the other wire from the DC motor into the black wire socket of the battery holder. Your wheel should start to spin on its own!



C) Turning Off the Wheel: To turn off your robotic wheel, unplug either of the wires from the battery holder.

PART 4: MAKE A GAME WHEEL

A) Decide what type of spinning wheel game you want to play. You can make a wheel-of-fortune game with prize money . . . or a wheel that decides what types of exercise actions you'll have to do. Design your game wheel.



B) How to Play: Take turns having different players turn on & off the wheel. Wherever the wheel randomly lands will be that player's prize or selection.

DO-IT-TOGETHER

Robotics Kits

Inside this packet is a creative robotics project designed for kids (ages 6-10) to build under the supervision and guidance of an adult.

If you have any questions or feedback during the robot-building process, you can reach us via the following ways:

BY EMAIL

info@barnabasrobotics.com

BY PHONE

(626) 344-9230

BY MAIL

BARNABAS ROBOTICS INC.
2028 E VILLA ST
PASADENA, CA 91107

