



## Wind Power Car Workbook



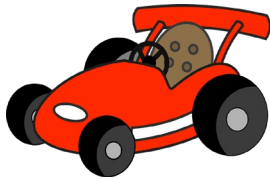
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# Wind Power Car

Shining New Ways of Sustainable Power

## Introduction

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## Overview & Purpose

Have you ever heard about windsurfing? It is a sport where riders use a windsurfing sail to skateboard across dry land. Basically, they use the power of wind to ride the land. You can land windsurf in the city streets, at [skateparks](#), on a beach during low tides, on a football field, in a flat indoor or outdoor surface, parking lots, salt and dirt lakes, or any open space with few obstacles. Believe it or not, land windsurfing is nearly as old as windsurfing. And, besides cruising, it also allows you to perform tricks and maneuvers. Why I tell you this is because today you get to make your own mini wind surfing car!

## Activity

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In this activity you must build a wind powered car out of the materials listed above. The requirement for your car is simple: it must have 4 wheels & and must have at least one sail (It can have more than one). That's it, the rest is up to you. If you wish you can add more things to it but the materials are all you need for your project.

### Materials Needed

1. Cardboard box (Shoe/cereal' etc kind of box), or tube (Toilet paper roll/ paper towel roll)
2. Skewers
3. Tape
4. Paper (Preferred color if you want to decorate)
5. Scissors

## Discussion Questions

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- What worked better, big sails or small ones?
- Did multiple sails increase the speed or slow your car?
- Do you think your car design is more impacted by Gravity or by wind power?
- How do you think you could capture more wind power on your car?

## Helpful construction tips

1. Use either the cardboard tube or a cardboard box as the body of your project.
2. You can make cardboard wheels out of the cardboard tube or you can cut out cardboard circles.
3. You can tape your paper to the skewers to make a sail.
4. You can use skewers as axes for your wheels.
5. Put some tape on the axis on both sides of the cardboard wheels so they stay straight. But make sure to put the layers of tape on the skewer and not the actual wheel otherwise it won't spin all the way.



*Materials were developed using grant funding from the CMS Energy Corporation and the Michigan Space Grant Consortium.*

**Acknowledgement Statement** – Materials developed in part by funding provided by the National Aeronautics and Space Administration (NASA), under award number **80NSSC20M0124**, Michigan Space Grant Consortium (MSGC).