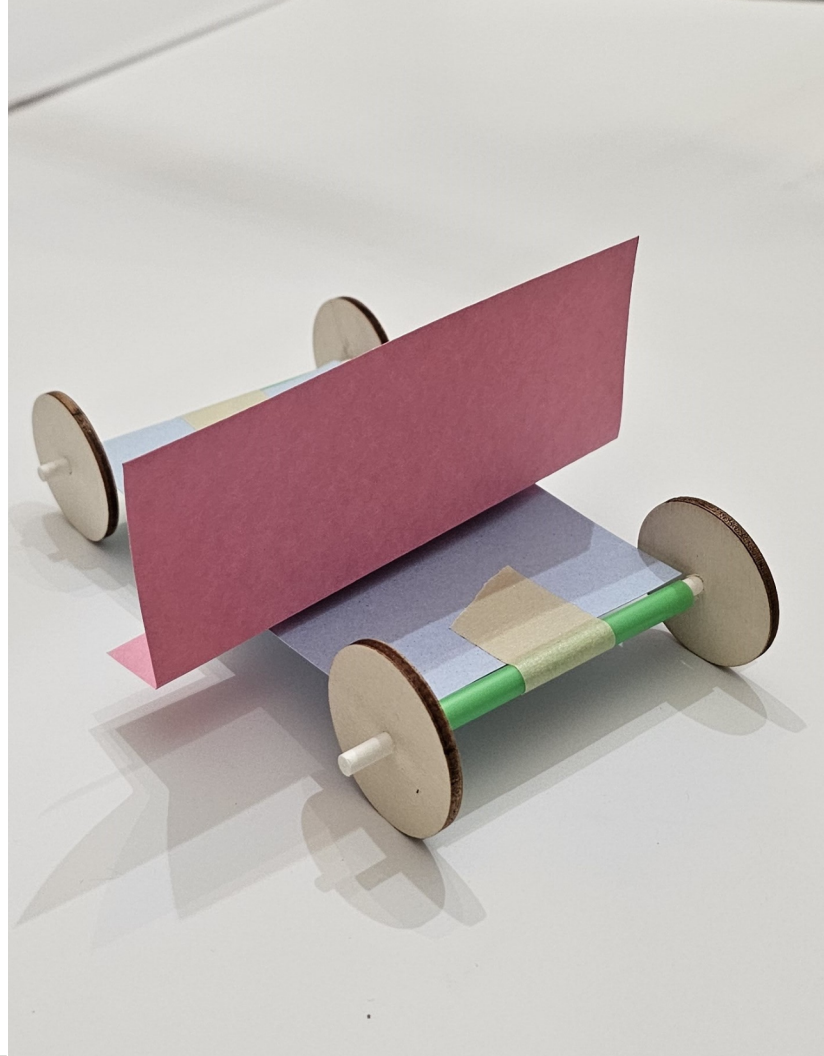


SAIL CAR



Courtesy of Fairport Robotics



WHAT YOU'LL NEED



HOW DOES IT WORK?

A **force** is a push or pull. Forces can cause objects to move!

When moving air pushes against your car's sail, it creates force. But there are other forces acting on your car, too. **Gravity** is a force that pulls your car down. **Friction** is a force that slows down or stops your car from moving.

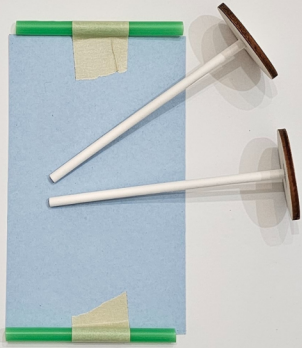
For your car to move, the force of the air must be stronger than the other forces acting on your car. This is called an **unbalanced force**!

Now try it out! You can blow on your car or use an electric fan. How hard does the air need to push to make your car move?



STEP 1

Tape your straws to the short sides of your first notecard. Use the edge of the notecard as a guide. You want your straws to form parallel (par+uh+lul) lines. Parallel lines are lines that will never cross!



STEP 2

Push one lollipop stick into the hole of one wooden wheel. It should be a tight fit! Now do the same thing a second time. You should have one wheel on each lollipop stick.



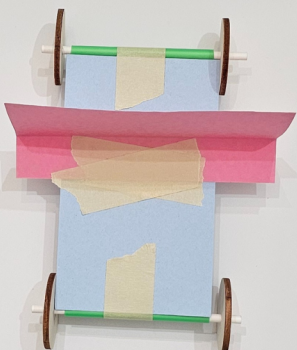
STEP 3

Slide your lollipop sticks through your straws.



STEP 4

Push a wooden wheel onto the other side of each lollipop stick. Now your car should be able to roll!



STEP 5

Fold your second notecard along the long edge to make your sail. You can make your sail tall or short based on where you fold your card! Then tape your folded notecard to your car. Now you're ready to sail!