



# Brick League

WEEKLY UPDATES

## SPRING SESSION DATES

March 1, March 8, March 29, April 5, April 12, April 19

## DONT FORGET

- **Make up for March 15 is moved to April 5.**
- Please wear masks and use sanitizer at the beginning of each session.
- We are so sorry for the inconvenience caused by cancelling last session.
- Please feel free to utilize our feedback forum available on our website after each session. We value your experience and want to meet needs and make accommodations as needed for all.

## FEEDBACK

We are so thrilled you are joining us on this fun STEM adventure together. We hope this league delivers educational challenges and lifelong friendships. If you have any feedback please email us at [heybrickleague@gmail.com](mailto:heybrickleague@gmail.com)

Imagine. Invent. Inspire.



BRICK LEAGUE

## WIND POWERED VEHICLE 3/29/23

### ENGINEERING DESIGN PROCESS

For each weeks challenge we will follow the engineering design process. This weeks challenge is to design a wind powered vehicle.

**We will test your design by confirming the wind powered vehicle makes it across the indicated distance, and meets criteria for length and width.**

Your wind powered vehicle must start at the starting line and cross the distance marker set up for you. Your vehicle must be at least **4 inches wide and 7.5 inches long**. The vehicle will be placed in front of the fan and will have to include a mechanism to capture the wind and be propelled.

Moving air behaves like a fluid, so engineers study wind and its behavior for many purposes. Wind is a renewable source of energy. This challenge demonstrates the use of physics concepts like mass, forces, and friction.

- **Ask-** define the problem:
  - how do I make the vehicle push forward with wind and drive straight
- **Imagine-** brainstorm possible solutions/issues:
  - Bigger catch for wind? Less weight? Top heavy?
- **Plan-** think! sketch! label!
  - pick a brainstorm idea, and plan your build
- **Create-** make a prototype and test it
  - Engineers work best in collaboration with others. Find an idea and build on it.
- **Improve-** how can you modify your design to make it better?
  - make your conclusion, iterate. How can you make your simple machine work best for your design? Challenge yourself beyond the design challenge.