

H Racers: The World's Smallest Hydrogen Car

Objectives: As a result of this activity, students will understand fuel cell technology and explore solar energy.

The H Racer is a futuristic toy car that operates on 100% clean fuel produced by a mini solar-powered hydrogen refueling station that converts water to hydrogen using energy captured from the sun. This is a mini version of real hydrogen powered cars being developed today. This car contains all the necessary technology to make it run. It includes an on-board hydrogen storage tank, a fuel cell system connected to the car's electric motor, and a hydrogen refueling valve system that can connect the car's storage tank to an external hydrogen refueling station. The car is very safe and only needs a tiny quantity of hydrogen to power it. The emissions are pure water and are so minimal you will not even see it.



This kit includes:

- Car chassis
- Car body
- Hydrogen storage cylinder
- Refueling input valves
- Fuel cell
- Gas purging syringe with valve
- Flexible tubing
- Screws
- Decoration sticker
- Hydrogen station

Not included in this kit:

- Screwdriver
- Distilled water
- Stopwatch

For supporting materials and a student lab see: https://www.horizoncurriculum.com/lesson_plan/h-racer-2-0-lab/

*Any materials that are lost or broken during classroom use must be replenished before being returned. Items can be bought from Horizon.