



KUB KARS: *They're Not Just for Cubs*

by Ian Mitchell

Imagine this: a group of young people standing around a wooden car track vying for the first place ribbon. Their cars are anything but pretty, yet each youth takes a certain pride in the effort and workmanship displayed by everyone else.

Some cars are long and sleek, while others are chubby. The Starter announces the beginning of another heat. Excitement builds. The noise gets louder at first, then subsides as the final cars are placed on the track. All eyes are focused on these vehicles sitting at the bottom of a Kub Kar track. "On your mark, get set...!"

Familiar setting, right? Cubs plan Kub Kar races every year, and love the excitement. But in the example described above, the youths placed their cars at the *bottom* of the track. Cubs put their cars at the top, naturally, so gravity can pull them down to the bottom. So why did I say that this other group put their cars at the bottom of the track? What's the purpose?

Scouter John Crook, who when not Scouting spends time working for Natural Resources Canada, has suggested a rather interesting event that will capture the imagination of Venturers. Not only will it encourage youths to think about future needs in the area of renewable energy, but it will allow for more imagination and ingenuity than you will believe.

The Venturer Hill Climb

Let me describe the challenge.

Objective

The objective of the event is twofold. First, to raise the awareness of renewable energy science and technologies among youth, and to underline our future needs in this area. And second, of course, to have fun while completing an enjoyable project.

Talking about the Kyoto Agreement would make a great kick-off for this event, especially in the area of transportation, which will need to be met in light of the agreement.

Design Criteria

1. Develop a Hill Climb model vehicle using some type of renewable energy (e.g. mouse trap, clock work, fly wheels, rubber bands, photovoltaic, air or water pressure, etc.).
2. Model vehicles must fit on a standard Kub Kar track without interfering with adjacent vehicles.
3. Model vehicles must be operated in a safe manner that does not pose potential hazards. (This means no one can use hazardous products, allow a model to over-heat, or make dangerous chemical mixtures.)
4. The energy source must be self-contained during a race, and renewable.

The Event

Obviously, the vehicle that climbs UP the Kub Kar track the fastest and easiest, wins. However, to ensure a

new spin on things, consider the following suggestions:

- a) Speed
- b) Innovation in power sources, or
- c) Maximization of recycled materials.

Many Spin-Offs

Along with the actual challenge of getting a car UP the track, and raising the awareness of renewable energy, youths will also:

- Learn about project design and costing
- Explore the areas of science and engineering as a possible career track
- Make links with government, academic and (possibly) private sector partners.

Get Going

Do some detective work around renewable energy. Then design your vehicle. Using Lego™ techniques or construction may be helpful. Venturers may be drawn to mousetrap powered vehicles, as Scouts have used this technique in the past, but encourage them to use other power sources too.

Check out www.mousetrap-cars.net. You'll be amazed at what you'll find to propel a vehicle forward.

With the future emphasis on cleaning up greenhouse gas emissions, this event could be a real eye-opener for Venturers. Perhaps next year we should try our hand at an actual solar powered vehicle. Any takers?^

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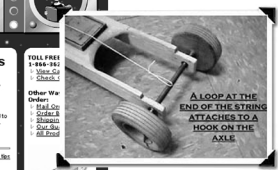
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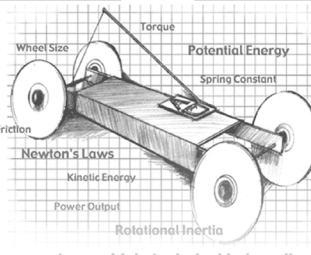


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SEND US YOUR RENEWABLE ENERGY IDEAS

How did your Venturers like this challenge? Write to me, and describe your successes and failures, as well as your design specifications. And don't forget to send us some photos. What other renewable energy projects have you tried lately?