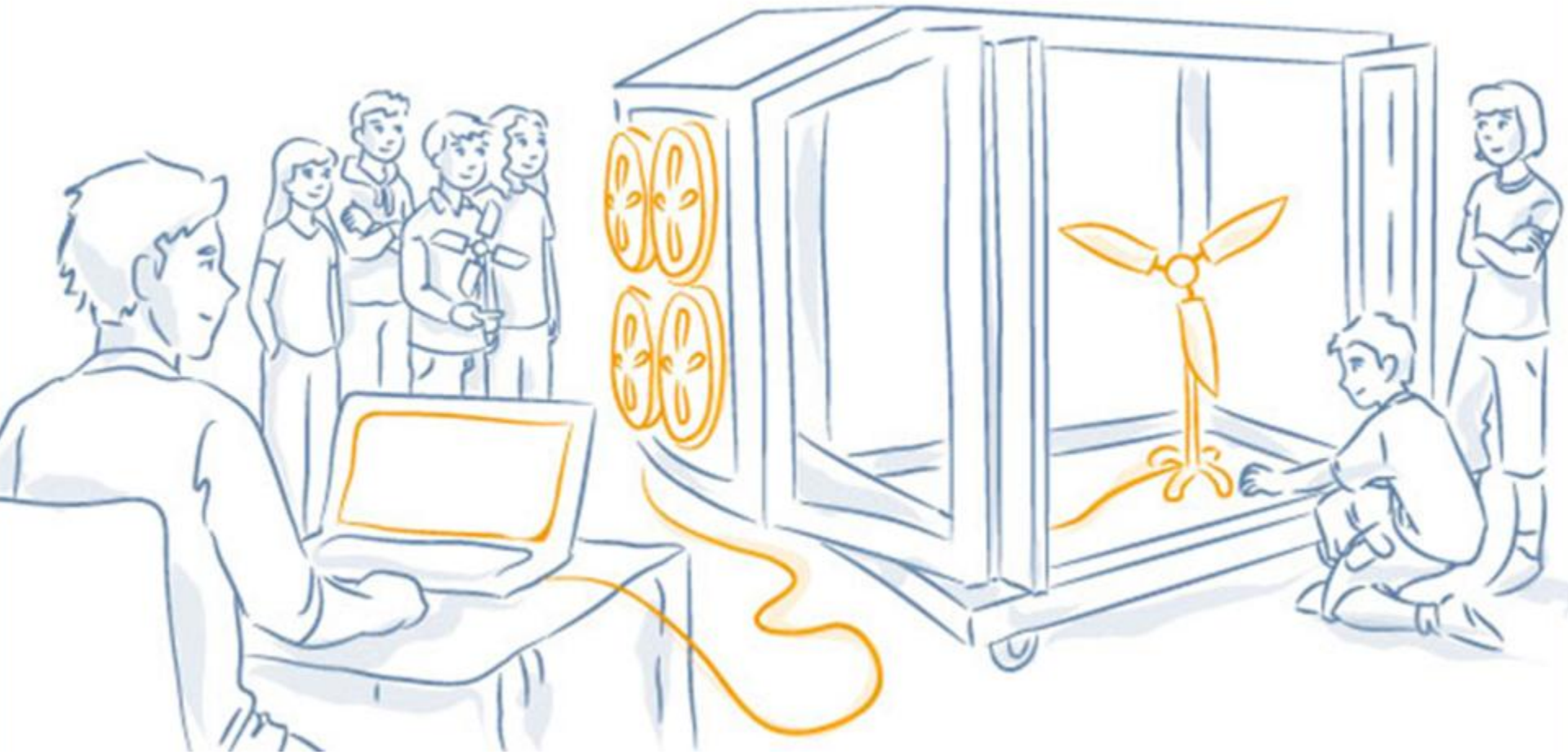
The KidWind Challenge



KidWind Project
www.kidwind.org

What is the KidWind Challenge?

The KidWind Challenge is a student-driven wind turbine design competition.

Students build turbines from scratch and compete to see whose turbine can produce the most power!

Turbine Rules

- Power must be generated solely by wind from the wind tunnel
- Turbines can be vertical or horizontal axis
- Gears are allowed, but NO pre-packaged gear-boxes
- Blades must be made by team (no pre-manufactured blades)
- Turbines must use KidWind Competition Generators
- Turbine must fit inside 48” x 48” wind tunnel
- Local judges determine turbine safety. Unsafe turbines will be disqualified (No metal blades, etc.)

Turbine Rules, cont.

New for 2013: OPEN DIVISION!

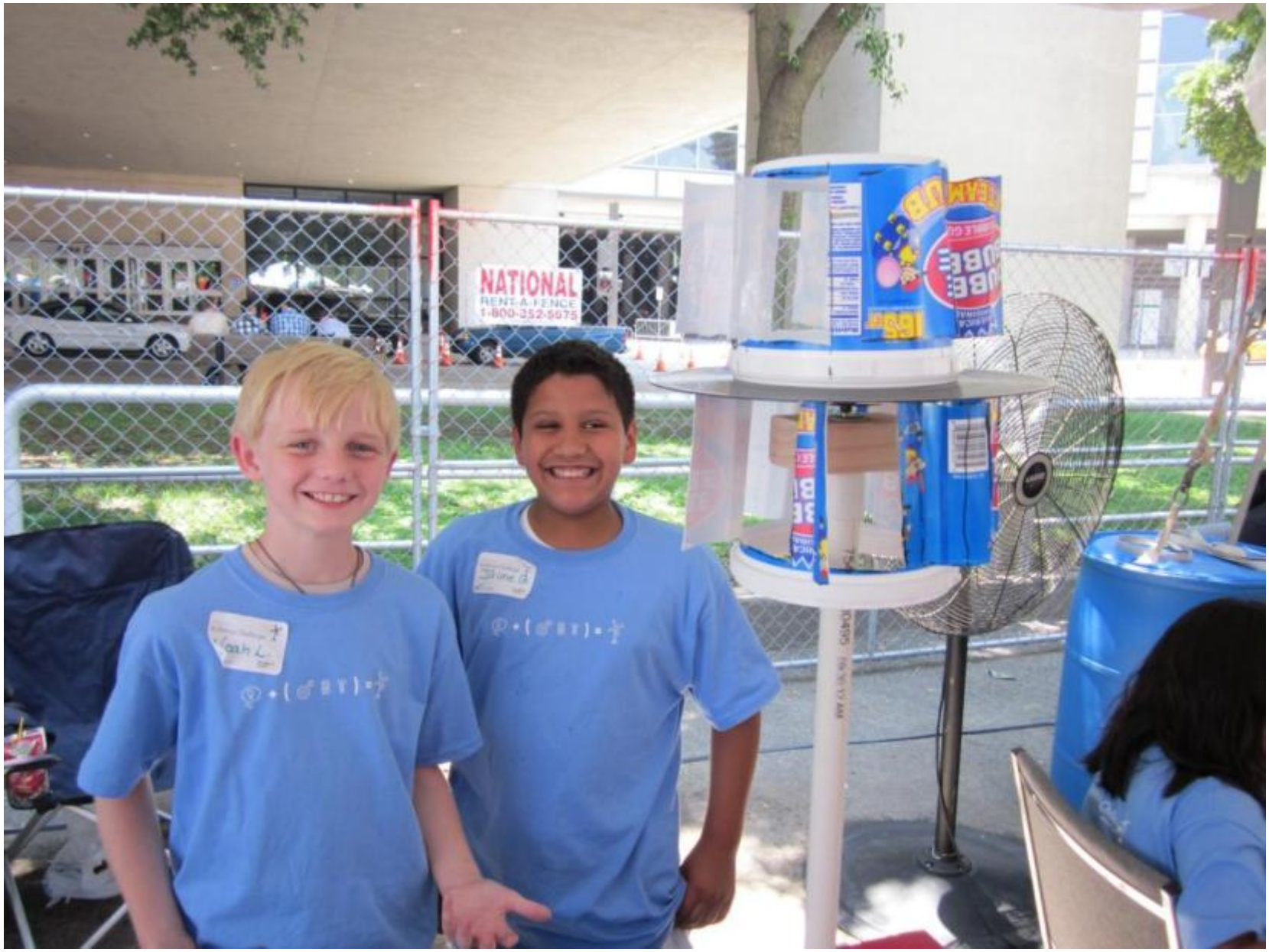
If it fits in the tunnel, and you built it, and the judges think it is safe, we will run it! Run what you brung!

- Can use any generator – stock or home-built
- Can use pre-made gearboxes
- Can NOT use pre-made blades
- Local judges determine safety. Unsafe turbines will be disqualified (no metal blades!)

Judging Rubric

- 40% Energy produced in wind tunnel
- 25% Turbine Design
  - 10% blades
  - 10% drivetrain
  - 5% tower
- 20% Report/Engineer's notebook (documentation)
- 15% Knowledge of wind energy subject matter

Portable Wind Tunnel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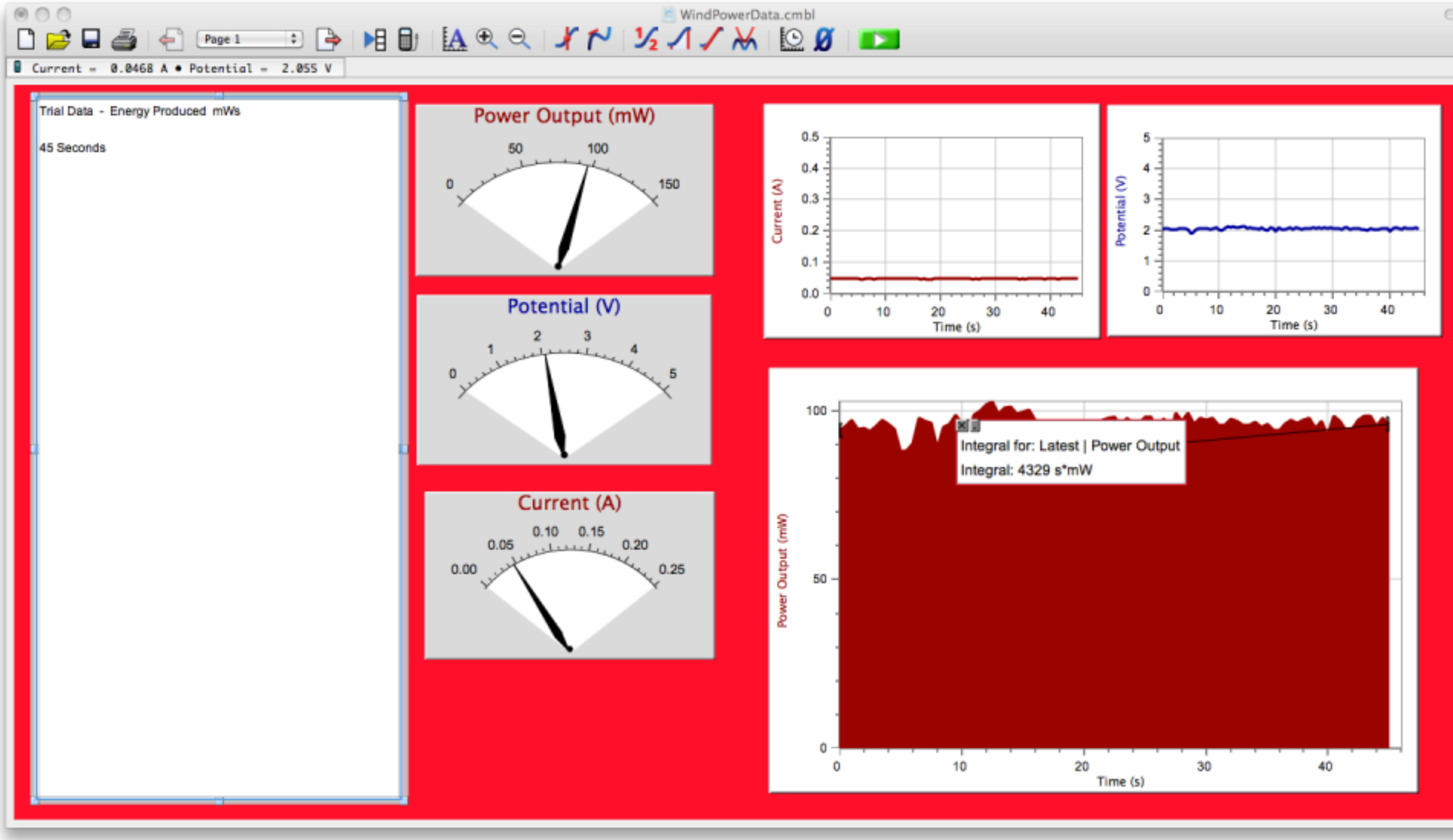
The Terminators
How we made our Windmill..
Journal
Why windmills are good..
Data
Materials
How we can recycle our project..
Issues with windpower..
Jamie Thompson

Data Collection

Volts x Amps = Watts

Students compete to produce the most milliwatt-seconds (mWs) over a 60 second trial

Vernier Data Logging System




AWEA

Winners and Prizes!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Yikes!

The KidWind Project
www.kidwind.org

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