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The Flywheel: A New Spin on Energy Storage

Challenge: Energy
Category: Senior
Region: Lambton County
City: Sarnia, ON
School: St. Christopher Secondary School
Abstract: This projects investigates developments in flywheel enery storage. In order for intermittent renewable energy sources (Solar and Wind) to become viable base-load sources, an economical, environmentally friendly method of storing power myst be developed. An Excel spreadsheet tool was developed to investigate the relationship between flywheel design and energy capacity. A demonstration model was developed to illustrate the concept of kinetic energy storage.

Biographies

Athitthan - I am a grade 11 student from St. Christopher Secondary School in Sarnia, Ontario. My ethnic background is a mix of Tamil Sri Lankan and Indian. At the moment, my hobbies include paintballing, tennis, and playing the drums. I plan to attend university in Toronto upon graduating from high school. There I would most likely study to become either a doctor or an engineer of sort. On my spare time I play the piano and do volunteer work at the local hospital.
Nicholas - My name is Nick Hakala, I am currently a Grade 11 student at St. Christopher Catholic Secondary School here in Sarnia, Ontario. I am thrilled to be attending this years Canada Wide Science Fair. This is the second time I have entered a project in our local Lamton County event. The last time was in Grade 8 where we entered a chemistry project entitled "Corrosion: Rust Never Sleeps". In addition to science, my passion has to be music. I play the piano, and am a French horn player on the high school band. On the sports side, I'm on the Cyclones Swim team during the winter, and I'm just gearing up for the first game of the Senior Rugby season. I ...