CWSF 2015 - Fredericton, New Brunswick

Caleb Chadwick

Maximizing Solar Panel Output Through Utilization of Photovoltaic Concentrator

Challenge: Energy
Category: Junior
Region: Peel
City: Brampton, ON
School: Mentor College

Abstract: An experiment involving the construction of various photovoltaic concentrator designs. Utilizing mirrors and magnification, different configurations are analyzed in an attempt to maximize output of solar panels. Intended to minimize the footprint of solar farms, being one of the main limitations of commercial solar energy production.

Biography

My name is Caleb Chadwick and I live in Brampton, Ontario. I am a Grade 7 student at Mentor College. I am an honour student and participate in many extra-curricular activities such as the Environment Club and Leaders for Change. I play the saxophone and am in the school band. My favourite activities are reading and strategy computer games. I enjoy downhill skiing, motocross (dirt biking), travelling, and spending time at our family cottage. I am very interested in alternative energy and ?green' architecture. I would like to take architecture or environmental engineering in university, and build my own self-sufficient house. I decided to investigate alternative energies and came upon the photovoltaic concentrator concept, which inspired me to create and test my own.