

## CWSF 2008 - Ottawa, Ontario



### Adam Bird

#### Windmill Blades

**Division:** Health Sciences / None

**Category:** Senior

**Region:** Toronto

**City:** Toronto, ON

**School:** Danforth Collegiate & Technical Inst.

**Abstract:** The rotational speeds of windmill blades of varying width, pitch, and number running different sized generators at different wind speeds were measured. Results showed that wider blades are more effective; larger generators are more effective; number of blades does not affect performance; and that while lower pitches spin faster with low loads, higher pitches are more consistent under all loads and wind conditions.

#### Biography

**Birthday:** May 14, 1991 **Musician:** plays trumpet in C-flats, a small jazz band; the Hannaford Street Youth Band; and a school jazz band. Also plays in the school steel pans group. **School:** Danforth Collegiate and Technical Institute in MaST (Math and Science Technology) program. **Activities:** cross-country skiing, has participated in the Canadian Ski Marathon every year since the age of seven. He and his family regularly undertake back-country canoeing expeditions, often for extended periods. Bird watching, hiking, and playing tennis. Volunteered last summer with Habitat for Humanity. Perhaps a future career in mechanical engineering. He has done some great robot building: "I enjoy the process involved in developing long-term projects, such as for the science fair or for programmed robot building competitions." **Prizes:** Kiwanis: firsts and seconds for Original Compositions and Solo Trumpet. Fibonacci, Math, 11th in Canada, grade 5. Pythagoras, Math, 18th in Canada, grade 6. Lagrange, Math, 12th in Canada, grade 8. Pascal, Math, 17th in Canada, grade 9. Skills Canada, Architecture, City gold, grade 10. Toronto Sci-Tech Fair, Silver, grade 9. Award for High Achievement in Music, grade 9. Scholarships for High Achievement in Math in grades 9 and 10. The DCTI Le Prix Francais, grade 10...