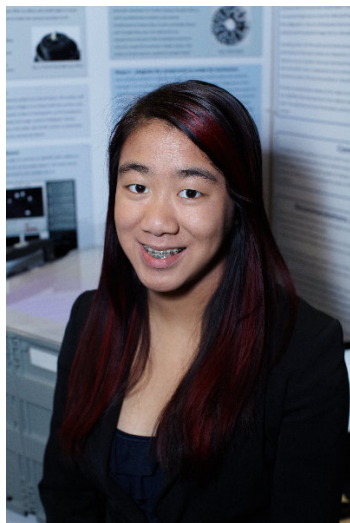


CWSF 2012 - Charlottetown, Prince Edward Island



Amanda Wong

Constructing an Infrared Camera Touchscreen

Challenge: Innovation

Category: Intermediate

Region: Winnipeg Schools

City: Winnipeg, MB

School: Grant Park High

Abstract: Existing touchscreens based on capacitive, resistive, infrared bezel, or surface acoustic wave technologies are relatively expensive and do not scale well. Infrared camera touchscreens using existing transparent or translucent surfaces may be able to scale to several square metres in area by using inexpensive digital cameras. A functioning proof-of-concept model was built using a modified webcam, infrared LEDs, and a pico projector.

Biography

My name is Amanda Wong and I am in the grade 9 Advanced Placement program at Grant Park High School, Winnipeg, MB. I have participated in various public speaking and debate tournaments over the last two years. Recently, I have achieved the title of Donahoe Cup 2012 National Debate Champion. Other extracurricular activities that I take part in are piano, guitar, flute, tenor sax, trumpet, vocal lessons, extra language lessons, figure skating, dance, volleyball and yoga. Excelling in all of my activities is extremely important to me so I am very dedicated in all my work. In the little spare time I have, I enjoy reading or spending time with friends and family. A portion of my free time is periodically spent volunteering with the Manitoba Academy of Chinese Studies. After high school I am interested in pursuing Biosystems Engineering at the University of British Columbia or the University of Toronto.

Awards

Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	\$700
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 700