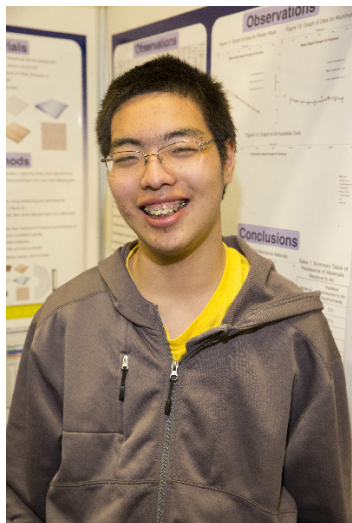


## CWSF 2014 - Windsor, Ontario



### Kai Tang

#### WiFi: Better Architecture for Better Reception

**Challenge:** Information

**Category:** Intermediate

**Region:** Ottawa

**City:** Ottawa, ON

**School:** Lisgar C.I.

**Abstract:** In this modern society, communication through wireless technologies has become increasingly important. In this project, I look at one of the most common forms of wireless communication today: WiFi, also known as WLAN. Through investigating how common materials affect the propagation of the signal, we can set our routers at a point such that they offer maximum coverage with the ideal strength and range.

#### Biography

My name is Kai, and I'm just a normal high school student from Lisgar Collegiate Student in Ottawa, Ontario. I developed a deep love for automobiles in kindergarten, which soon extended to engineering and eventually other branches of science. In grade 7, I decided to put my skills to the test in my first science fair. I failed spectacularly, as I was too ambitious in my goal (I tried to redesign the hovercraft using a leaf blower and a snow tube). Last year, I did a more realistic project on how climate conditions affected the performance of electronic devices, winning second place at the Ottawa Regional Science Fair. This year, I made it to CWSF and couldn't be happier. My project came to me when I was experiencing a weak Wi-Fi signal that hampered my gaming performance, and I set the goal of finding a way for a normal, non-tech savvy person to improve their Wi-Fi reception. I would like to improve the consistency of my data in further investigations through extensive testing. My advice to anyone thinking about doing a project: pick something you love, or else the project is going to feel like a tedious school assignment.