

SCIENCE BUDDIES *in Action*



Student

Alejandro Solano
Antioch, California

Awards

Contra Costa County Science and Engineering Fair, 3rd Place Category Award

Overview

When high school senior Alejandro Solano needed to fulfill a public outreach assignment for his research class, he chose to conduct a science experiment. When he needed help brainstorming ideas for his experiment, he chose Science Buddies.

Using the Topic Selection Wizard, Alejandro discovered the Project Idea titled “The Point of a Parabola: Focusing Signals for a Better Wireless Network.” After reading through the list of variations provided in the Project Idea, he decided to build an experiment that would test signal strength through walls and other obstacles. He collected signal strength data at 40 different locations in his house, taking care at each point to vary the number of obstacles between his receiver and signal router. He concluded that signal strength is directly related to the presence of obstacles—the more obstacles in the path of the receiver, the weaker the signal received.



Alejandro's project, “Where's My Wireless? The Effect of Router Location on Signal Strength,” was among those exhibited at the 3rd Annual Contra Costa County Science and Engineering Fair. As a result of his hard work and attention to detail, he received 3rd Place in his category, Physical Sciences. As an added bonus, he fulfilled his outreach requirement and earned an “A” for the science fair project.

Alejandro's science fair project illustrates his interest in computers. He is a member of the Diablo Valley Macintosh Users Group and a self-employed computer technician. Not surprisingly, he plans to major in computer science at Chapman University. In his free time, Alejandro enjoys playing video games and spending time with friends.