



MASSACHUSETTS CLEAN TECHNOLOGY AWARDS

A Program from The Foresight Project Inc

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Middle School Clean Tech Awards:

Region V: Southeast MA

Ricky Housley, Inly School,
Scituate

"Cellular Automation"

I enjoy a wide array of activities. I'm a swim team participant, along with an avid snowboarder and soccer player. I spend most of my free time reading online articles or tinkering with new circuitry projects. I am enthusiastic about everything I do, and I am known to have an unlimited supply of energy.

MY PROJECT:

The project I created for the Massachusetts Science Fair was titled "Cellular Automation".

The goal of the project was to remotely control four 120 volt electrical outlets via text messages. The idea was that a text message would be sent from a phone, the message would then be received by another phone connected to a computer. Depending on the content of the message, different outlets would be turned on or off by the computer. The computer controlled the individual outlets via the parallel port and some custom built circuitry. The project was able to turn on and off crock-pots, air conditioners, heaters, fans, and many other house-hold appliances.

The project also had a green aspect; this technique can be used to reduce heating and air conditioning emissions by reducing the amount of time that they were turned on. Instead of a heater or air conditioner turned on all day regulating the temperature, cellular automation would enable cell phone owners to turn on the heater or air conditioner while on their way home. [In addition to the many other type appliances that appear to be turned off, but are really on standby and consuming electricity such as phone chargers, cable TV boxes, and X-boxes!]