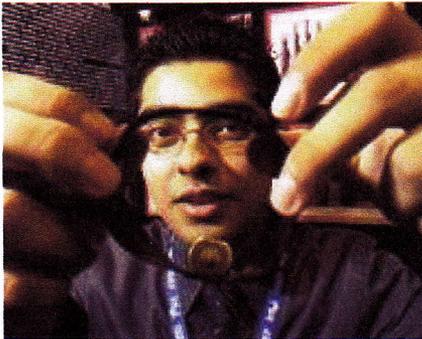


## *Teenager makes navigation system*

*for the visually impaired*

by Sameera Gokal



**AMEEN ABDULRASOOL**

"Growing up around blind people was my main motivation to compete in this year's science fair," said Ameen Abdulrasool, a young inventor who has set his sights on helping the blind regain some of their independence. He is the 2005 winner of the Intel International Science and Engineering Fair (Intel ISEF) Award for his project, titled "Navigation System for the Blind," an invention he has been working to perfect over the last four years.

Born and raised in Chicago, Ameen is a freshman majoring in business at the University of Illinois at Urbana-Champaign. He decided to join the Alpha Program, which helps students design science experiments, to compete in his high school science fair.

The "Navigation System for the Blind" is a small handheld device that provides detailed directions for users. The device connects to a handheld personal digital assistant (PDA) equipped with a Global Positioning System (GPS) receiver, which is attached to a voice command circuit. Both connect to bracelets on each arm, which vibrate to signal directions for upcoming turns.

Ameen tested 36 people, all blind since birth. He created a one-mile obstacle course and tested three groups for accuracy and completion. The first group received verbal commands, the second received vibratory commands, and the third received a combination of verbal and vibratory commands. The navigational tool saved users approximately 25 minutes in travel time and reduced the number of errors. Currently, Ameen is working with the University of Illinois' Artificial Intelligence department to improve the navigation system and eventually market the tool to the public.

"Knowing I could create something that could help the blind has been the most rewarding part of my work," Ameen said. ▼

**For more information on the Intel ISEF and Ameen's invention, please visit**

**[www.intel.com/pressroom/archive/releases/20050513edu.htm](http://www.intel.com/pressroom/archive/releases/20050513edu.htm) and**

**[www.iacfpa.org/p\\_news/nit/iacpa-archieve/2005/08/05/newsmakers3-05082005.html](http://www.iacfpa.org/p_news/nit/iacpa-archieve/2005/08/05/newsmakers3-05082005.html)**