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# Helping monitor children from afar

## Professor works on tracking device

BY HOWARD MCEWEN | ENQUIRER CONTRIBUTOR

**HIGHLAND HEIGHTS** - Seeing an opportunity to use his engineering know-how to find missing children, NKU Associate Professor of Engineering Mark Rajai created the Multi-Protector 3000. The device is a monitoring system to alert parents when their children have gone too far away.

Rajai's device is still in the prototype stage. The final design will be about the size of a dime that can be placed on a child or even under the skin. The parents can set a receiving device to alarm if the child exceeds an established distance. The monitoring distance can range from 2 to 1,000 yards.

Rajai's previous design was the Guardian 2000, which he presented in 1999. It generated industry and media interest, but some technological drawbacks hindered development.

**ADVERTISEMENT** A new microchip has eliminated roadblocks as well as allows it to be affordable. Rajai estimates the cost to be about \$50.

The current prototype of the Multi-Protector 3000 is too bulky.

"We need money to fine tune and test. At least around \$50,000 to \$100,000 to run all kinds of tests and to reduce the size. After that we could probably get some companies to come in for mass production," Rajai said.

However, Rajai highlights an easy way to reduce abductions that doesn't cost anything.

"We have to start with awareness," he said. "Children are not aware of the problem. I think that by itself, half of abductions can be prevented if children are taught to protect themselves."

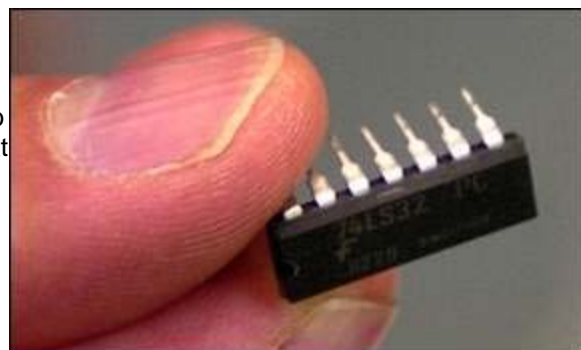
A native of Iran but living in the United States for the past 26 years, Rajai has bachelor of science and master's degrees in mechanical and electrical engineering and a Ph.D. in industrial engineering from the University of Louisville.



ZOOM

The Enquirer/patrick Reddy

Northern Kentucky University Associate Professor of Engineering Mark Rajai is creating the Multi-Protector 3000 to monitor children.



ZOOM

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This integrated microchip is similar to the one that is the brain of the device.