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Student Spotlight

Teacher: Chris Odom

School: George School in Middletown Township

Accomplishment: A physics and computer science teacher, he wrote the recently published robotics programming textbook, *BasicX and Robotics: The Art of Making Machines Think*.

Question: When did your interest in computers begin?

A: In sixth grade. Atari games didn't hold my interest. I wanted to program the games.

Q: Who can benefit from using this textbook?

A: I really wrote it for high school and introductory college level, but a very motivated junior high school student would do well. I wrote it for teachers who do not know how to teach technology. I wrote it for hobbyists.

My mother, who didn't know about robotics, could read the book and understand it. That to me was an indication that the book was written on a level anyone could understand.

Q: What motivated you to write the book?

A: I'm a teacher. I like to inform people. Not many of my students will program robots for their livelihood, but many will probably program computers to control automobiles, rockets, cell phones, hospital equipment. This book teaches you how to make a machine think. It's not about robots; it's about education.

Q: Did your students play any role in the writing process?

A: The book is 364 pages and took two years to write. During that time, I taught the material to my computer science classes. I would write a chapter and give it to them. They would explicitly point out grammatical mistakes or mistakes in my logic, or suggest a better approach. Implicitly, I would garner a lot of information from them if they were confused. If they asked many questions about a particular chapter, that told me my writing wasn't clear enough and I would rewrite that section. I also emphasized the chapters that they were interested in.

Q: What project do you have planned for your students this year?

A: My students and I are going to build a rover to navigate the campus autonomously. This is not remote control. The human puts the brain together, then the human steps away. If the rover reaches an obstacle, it has to determine the best way to go around it.

There are many things a robot can do that a human shouldn't do - scan suspicious-looking baggage, defuse a bomb. These tasks are tailor-made for autonomous robots.

Q: What are your plans?

A: I'm 36 now. My two young children and wife and I live on the George School campus. I love my time at the school. I plan on retiring from here.

Valerie Reed

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