

INSTRUCTION



Karl Stillew / Chronicle

Dan Taglia, owner and founder of American Robotics Academy in the west Houston area, works with students Rob Wood and Carljin Valk in his workshop. The former

photographer for Conoco has taught hundreds of children about robotics and is considering franchising his operation in the future.

Demand for
robotics
really moving

TEACHING CHILDREN BECOMES FULL-TIME OPERATION, WITH POSSIBILITIES FOR EXPANSION

By **DAVID KAPLAN**
Houston Chronicle

CHILDREN at the American Robotics Academy work with gears, motors, wheels, axles, pulleys, microcomputers and pneumatics.

The program teaches them much more than engineering, owner Dan Taglia said. "It's getting kids excited and motivated about a hands-on learning experience."

And, of course, they like battling each other's robots.

Taglia almost single-handedly runs his robotics summer camps, for first grade through high school-aged children, and he teaches an after-school program for the Katy Independent School District. He taught almost 300 children last summer.

His robotics camp in the west Houston area has become so popular that he asked himself: Why not multiply them? His plan is to set up camps in five parts of Houston and hire people to run each one.

His fledgling robotics academy has great potential, but he seems to be in a Catch-22. His students and their parents love what he's doing, but much of the program's success is tied to his teaching skills.

There is definitely interest among parents for Taglia to branch out. A dentist with an office near Hobby Airport offered to give him space for free if he taught robotics there, Taglia said.

"He's got a tremendous opportunity

TAKING IT FURTHER

Company: American Robotics Academy

Location: West Houston

Web site:

www.roboticsacademy.com

Service: Teaches children and teenagers how to build robots.

Challenge: Owner Dan Taglia wants to expand his business beyond its one location, but his company's success is closely tied to his skills.

Solution: He plans to recruit science teachers and graduate students to help expand his operation.

Expert advice: Try franchising.

and predicament," said Ira Davidson, executive director of the Small Business Development Center at Pace University in New York City.

Ideally, he could clone himself, Davidson said.

"The question is: Can he replicate himself, or will too much get lost in translation?"

He's got to be careful as he grows and make sure the people he hires are well-trained and able to convey enthusiasm for the subject as he does, Davidson said.

Taglia agreed that finding good teachers is his main challenge.

He plans to recruit local science teachers as well as engineering graduate students at Rice University and the University of Houston.

He wants to find people who still have some kid in them, he said, and are willing to get down on the floor with students and get involved. Such teaching requires tolerance and patience.

Taglia might consider franchising, Davidson said. It would increase the possibility that the person who runs one of his camps is dedicated.

Irwin Miller, a counselor with SCORE, a group of retired executives who advise small business owners, also believes franchising is a good approach. For starters, he would get a fee and a percentage of his franchisee's income, Miller said.

He should make sure he has his name, American Robotics Academy, protected. It is, Taglia said.

Taglia has a good-looking Web site, at www.roboticsacademy.com, which will also serve him well if he chooses to become a franchisor, Miller said.

Taglia had already thought of franchising, but he believes it would be wise to first establish two or three robotics camps.

He is already getting calls from people in other cities asking him to open a robotics academy in their areas.

Along with teaching after-school programs, Taglia hopes he can look up with public and private school science classrooms as a facilitator. His function would be to provide curriculum and help start the class, and "get the kids fired up and let the teacher take it from there."

Robots

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Taglia could also market himself and pick up extra money doing demonstrations at children's parties and other events, Miller said.

Taglia has taught robotics to hundreds of Houston children, yet he has no background in science or engineering.

He was previously a senior photographer for Conoco. He got the idea for the academy after he was assigned to cover an international high school robotics competition five years ago.

He took along his son Joshua, then 11. Joshua asked him if there was a place in town where younger children could learn robotics.

Taglia looked but couldn't find anything other than clubs.

A former college photography instructor and Boy Scout leader who had played with Legos with Joshua, Taglia decided to organize a two-week summer camp on his vacation time.

It wasn't about the money, he said. "It was more the Boy Scout leader in me," he said.

About three years ago he invested \$1,000 in Lego materials and rented space at a Katy church. To advertise, he put up road signs in the area.

He charged \$125 per child for 15

hours of instruction. About 30 children participated. He didn't make much money, but he got very positive feedback.

The following summer he had a much bigger turnout and turned a profit.

About a year ago he got laid off at Conoco. He had already been thinking of leaving the job to concentrate on the academy.

Now, Taglia also teaches robotics to home-schooled children in the day as well as after-school classes at his headquarters in a west Houston-area shopping center.

"He's taught me a lot," said Chris Earley, 14. "It's like speed learning. It's pretty awesome. He's got almost

every part imaginable."

Earley is a leader of a team that has created a robot that will perform tasks on a simulated Mars.

Team member Carlijn Valk, 12, did research on the Red Planet, and wrote a report describing the surface and atmosphere of Mars and much more.

Taglia prefers having his students work in odd-numbered groups. That way, when they disagree on something, they can take a vote.

Many children today don't have good social skills, he noted, because they spend so much time in front of computers. His classes are an opportunity to learn teamwork. Some parents cite that as their main reason

for enrolling their children.

"This is a place where they can fail," Taglia said. "We even encourage it." It's part of the scientific process.

Three boys from Louisiana took the class last summer while staying with Houston relatives.

After returning to Louisiana, one of the proud robot builders e-mailed Taglia with a message he asked him to convey to the other children.

"Tell them these exact words, and I quote: ... 'Our robot is special because of one thing... STRENGTH, we have a 15-1 and/or 9-1 gear ratio, therefore we had the power and the know-how to make it a mother ship...' Tell them that, Mr. Don."