

The Business Review (Albany) - August 11, 2008

<http://albany.bizjournals.com/albany/stories/2008/08/11/smallb1.html>

## THE BUSINESS REVIEW

Friday, August 8, 2008

# Applied Robotics looks to biotech, food sectors for long-term growth

The Business Review (Albany) - by [Adam Sichko](#) The Business Review

Back and forth, back and forth, the towering orange robot inside **Applied Robotics Inc.** pivoted from an assembly line to a wood pallet.

The robot's 16 curved, stainless steel fingers on the end of its arm opened and closed with silent efficiency and speed.

The device is one of several that Applied Robotics has designed to help the company reach beyond the hard-pressed automotive industry, which defined its early growth, into new and more stable markets.

"We had all our eggs in the automotive basket. That's a dangerous thing," said Thomas Petronis, company CEO and vice chairman.

Applied Robotics has moved into the biotechnology sector and into other smaller industries, such as food and beverage manufacturing.

The company has already done work for **Bristol-Myers Squibb Co.**, **PepsiCo. Inc.** and **Hershey Foods Corp.** It plans to double its current annual revenue to \$20 million in about five years, on the strength of sales to those new markets.

"Those are markets that are predicted to grow, and are growing," Petronis said. "We wanted to get in on the ground floor."

### New frontiers

If a robot is a human arm, Applied Robotics makes the wrist and fingers. In most cases, the company supplies other robotics firms with those parts, rather than selling directly to the businesses that use robots.

Applied Robotics has been linked with the automotive industry for almost its entire 25-year history, which started when several former **General Electric Co.** engineers designed a robotic "gripper" on a dining room table.

Today, automakers provide about 80 percent of the company's annual revenue. Of that, most



Donna Abbott Vlahos | The Business Review

At Applied Robotics, Cliff Annis, left, president, and field marketing manager Gerry VanValkanberg test a robot fitted with a heavy duty bag gripper tool.

[View Larger](#)

now comes from foreign clients, reflecting the plight of the Big Three automakers in America.

"It's still our bread and butter," said president Clifford Annis. "But we needed to level that out."

Applied Robotics has already started working with several meat packing companies, which they declined to name. The company is also marketing certain types of industrial robotic grippers for use handling bags of cement or even dog food, for example.

"The meat industry has not gone through full automation, so it's ripe for that," said Clay Cooper, Applied Robotics' engineering manager. "Chicken, fish and meat are all labor-intensive businesses."

Biotechnology, though, is an even greater prize because of the high demand for robotics.

Robots have been in use in drug research and testing for at least 10 years, said Bruce Sargent. He oversees drug discovery, research and development for Albany-based AMRI, formerly known as **Albany Molecular Research Inc.**

AMRI uses robots to build up its "library" of complex drug and chemical compounds, and robots also conduct screening tests involving volumes of chemical reagents invisible to the naked eye, Sargent said. The testing arena provides the starting point for possible new drug discoveries.

Drug research companies could finish 10,000 tests a year when doing them manually, Sargent said. Using robots, AMRI completes 30 times as many tests in less than two weeks, and also eliminates most human error.

"That would be incredibly difficult for someone to do manually with a steady hand," Sargent said. "A robot will do that without thinking about it."

Applied Robotics will partly focus on the drug discovery sector, Petronis said.

But it's mostly interested in clinical diagnostics, an area where robots have only had a presence for a few years. In clinical diagnostics, robots are used to handle test tubes, cap bottles and transport testing trays, among other tasks.

"We needed a market that wasn't going to fizzle out in a short time," Petronis said. Officials estimate that the "tooling" part of that market, which is where Applied Robotics lives, is worth at least \$20 million.

In both cases, Applied Robotics expects to see more business as more companies shed jobs and lose more employees to retirement. Robots make fewer errors, enjoy longer durability and rarely fail, Petronis said.

"In the past, when the economy is down, our business is on the upswing because there's more automation being employed," Petronis said. "It's one solution to literally not having enough people to do work."

**'Brutal' bread and butter**

The automotive industry is one sector where layoffs and declining workloads have become all too common.

Demand is sagging, too. This year, U.S. consumers are expected to buy fewer than 15 million new cars and light trucks--the nation's lowest total since 1995, according to projections by marketing firm J.D. Power & Associates.

But it's also an area that's becoming increasingly automated. Car companies are starting to produce more vehicle models at smaller volumes, which is a positive trend for robotics companies, said Jay Baron, president and CEO of the nonprofit **Center for Automotive Research** in Ann Arbor, Mich.

"That will demand even more flexibility of these factories, and that will demand more robots and more automation," Baron said. "It's mandatory."

Most automakers aren't looking to trim spending on robots, despite their weak fiscal health.

"They can't make a short-term decision at the sacrifice of long-term competitiveness," Baron said. "They know they need robotic automation to be competitive."

Automotive contracts can take months to complete, but one order can be worth anywhere from \$100,000 to more than \$1 million to Applied Robotics. In the early 1990s, the company was one of a few firms making devices that enabled robots to weld or change assembly line tools quickly and without human intervention.

But over time, more robotics companies entered the market. Robots became commodities, Baron said, reducing price tags from between \$50,000 to \$70,000 a device to less than half of that today.

Applied Robotics competitors include **Dover Corp.**, a multibillion-dollar company and owner of a Connecticut firm called **Robohand Inc.**

"When they all work, and they're driven down in price, you can't expect to make the margins you once could," Petronis said. "We knew the picture was changing."

Rising raw material costs have also cut into margins, which Petronis likes to keep between 4 percent and 10 percent.

Applied Robotics has begun charging shipping costs to clients to offset rising fuel prices. And last year, the company invested in equipment that eliminated the need for outside testing, which cost at least \$400,000 a year.

Petronis said he will keep making these investments to establish the company in its new sectors.

"We're not just going to hold on to our cash and hope things get better," he said. "We're not going to let off the gas."

### Quick info

## **Applied Robotics Inc.**

Top official: chairman and co-founder, W. Paul Cullen

2007 revenue: \$11 million

Employees: 65

Address: 648 Saratoga Road, Glenville

Phone: 384-1000

Web: [www.arobotics.com](http://www.arobotics.com)

## **Lessons learned**

### **Don't be afraid to accept help**

Until five years ago, Applied Robotics Inc. minded its own business.

And that turned out to be a problem, as more competitors began manufacturing robotic parts for the automotive industry.

Applied Robotics did not pay enough attention to them, said president Clifford Annis.

"We were inwardly focused," Annis said. "We had some good years, but we let a lot of our core business slip away. Our competitors saw the opportunities."

Applied Robotics, no longer a niche supplier to auto companies, was thinking about rebranding when it connected with **Media Logic**, an Albany-based marketing communications firm, about five years ago. James Fitzgerald, vice president at Applied Robotics, said the investment the company made when it hired Media Logic was worth it.

Media Logic helped Applied Robotics engineers identify new markets while dropping work that did not fit the company's business model, Annis said.

All told, the company spent about \$750,000 rebranding. About one-third of that was for market research.

The company also hired a new comptroller and engineering manager.

[asichko@bizjournals.com](mailto:asichko@bizjournals.com) | 518-640-6818

*All contents of this site © American City Business Journals Inc. All rights reserved.*