



Richard Williamson, left, Lithos Robotics marketing director, and President Allen Mann are ready to roll with a new robot to be used by SWAT teams and bomb squads. The company sells digital-controlled radio units mounted to robots used by bomb squads. In the future, plans call for Lithos to manufacture its own robots for a market that Mann is optimistic about.

# Robots on patrol

## Remote-controlled devices saving lives

BY DAVID BERTOLA

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As a sheriff's deputy in Lee County (Fla.) with bomb squad experience, Richard Williamson is one of few who actually had to explode a bomb.

The Buffalo native says that in his line of work, it's important to keep people away from suspicious-looking packages. In such situations, a radio-controlled robot can come in handy.

So three years ago, after seeing a demonstration by Allen Mann of Amherst-based Lithos Robotics, the men began working together.

The company sells digital-controlled radio units to be mounted to robots used by bomb squads. Next up is manufacturing its own robots for a market that Mann said is ready to buy. He is president and Williamson is marketing director.

Lithos is preparing for the 2011 launch of its first line of reconnaissance, SWAT, Hazmat and Explosive Ordinance Disposal robots. All will feature the Megalith digital-control system, which allows multiple robots to run from the same controllers, or multiple robots from different controllers in the same vicinity. Mann said neither had been able to be set up before the Lithos system was created.

Megalith also lets one robot be used as a repeater, a device that effectively doubles the distance over which the control system works or boosts the radio signal, which cuts through radio interference in places such as large buildings.

The radio systems run about \$27,000, and Mann said Lithos sold 25 or so last year. Customers include Erie and Chautauqua counties and the Chicago

Police Department, which he said will be replacing radios on its current robots with his model.

Lithos also developed an arm that looks like it was taken from a science room skeleton below the elbow, as well as a set of cameras that work as electronic eyes.

Using the software and camera from a distance, the operator can click on an object laying on the ground. Mann showed a video of a grenade – which resembled a shiny, metal lawn dart – on the ground. The image was clicked on, then the robot detected it and picked it up.

"The robot, not the operator, deploys the arm automatically and picks it up all by itself," Mann said.

He added more capabilities for the new robots. The base is a 55-lb. case with tank-like treads on both sides. It is narrow enough to navigate cube farms in offices or down airplane aisles.

In addition to the repeaters, which provide the extra range bomb squads are looking for, Mann said he plans to mount an eight-foot arm with a camera at the end. This way, during a hostage situation, for example, the robot can be maneuvered to the side of a building. The arm can then be extended and the camera can look in a window so authorities can see what's going on inside.

Mann said he is excited about the possibilities. Williamson, meanwhile, estimated that 500 to 600 work on bomb squads nationwide, and about twice that number are on SWAT teams.

"This will be an easy sell for us," Mann said, adding that when talking to current customers about what he has in store, many have told him, "I have to have that."