

ROBOT VEHICLES FOR FIRST RESPONDERS



A robot by Allen-Vanguard Corp. is used to dip a pH test strip into a staged container of chemicals.



Allegheny County Emergency Service team members operate the robot remotely, observing via wireless camera.

“Our first experiences with the ground robots lent by SPAWAR’ Robotics Pool generated a list of activities we expect to explore further in order to improve our on-the-scene performance and safety.”

*Al Wickline
Staff Instructor, Acting Manager
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What do search and rescue teams in Southwestern Pennsylvania, fire fighters in California, and county emergency services groups in Pennsylvania share in common? Each is ‘toying’ with an unmanned ground vehicle (UGV) borrowed from the U.S. Navy. More than just toys, these robots can perform important actions, while reducing the safety risk for the First Responders whom operate them remotely.

Visual scene surveillance, sampling chemicals in suspicious containers and detection of hazardous gases and radiation releases are just some of the scenarios to be explored by civilian emergency responders using the technology.

The U.S. Navy group that maintains and lends these new and retired military systems to federal and local first responder agencies is the Robotics Systems Pool of the Space and Naval Warfare Systems Command (SPAWAR) Systems Center in San Diego, CA. FirstLink and Robotic Systems Pool representatives Major John Andrews and Ben Stratton worked in tandem to secure equipment loan agreements in the first half of 2007 for:

- White Oak EMS/Southwestern PA Search & Rescue
- Ventura County, CA Fire Authority - Hazmat
- Eugene, OR Metro Bomb Disposal Unit
- Allegheny County, PA Emergency Services
- Orange County, CA Fire Department

By sharing their robots with different user groups, SPAWAR is able to collect valuable feedback on devices and applications which relate to its own defense missions. Meanwhile, the First Responders can investigate how these tools can be applied in their similar emergency operations. These experiences can lead to product advances and adoption of new technology among participating groups, improving homeland safety for the First Responders and the public alike.

The SPAWAR Joint Robotics Pool lends robotic platforms to Federal and local first responder agencies. The program places heavy emphasis on user and developer interaction to ensure requirements are accurately identified and developer efforts are aligned to satisfy those needs.

FirstLink is the Department of Defense’s National Center of Excellence for First Responder Technology Transfer, supporting emergency and security needs through the development of commercial pathways between Department of Defense Science & Technology, private industry and universities.

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