

FOR IMMEDIATE RELEASE

**RE2, Inc. Wins Phase II U.S. Navy SBIR to Develop a
Dexterous Manipulation System for Mobile Robot Platforms**

Pittsburgh, PA — July 15, 2008 — RE2, Inc., a leading developer of intelligent modular manipulation systems, announced today that it has been competitively awarded a Phase II Small Business Innovation Research (SBIR) program by the U.S. Navy to develop a Dexterous Manipulation System (DMS) for mobile robots and explosive ordnance disposal (EOD) robotic platforms.

Many of the manipulators currently available for EOD robotic platforms cannot adequately manipulate small items commonly found in improvised explosive devices, such as wires and blasting caps. These current manipulators are limited because of the small number of degrees of freedom available and the primitive joint-by-joint control that is predominantly used. They also are limited because the operator does not receive any feedback on the amount of force the manipulator is applying, making it difficult to hold sensitive items without dropping or damaging them.

The goal of this SBIR program is to develop a dexterous manipulation system that can grasp objects in difficult to reach areas – such as removing a blasting cap from a target without moving the robot base or damaging the object. The system should also be able to pick up and manipulate objects, such as wires or blasting caps, from the ground.

During the eighteen-month Phase II, RE2 will perform the following:

- Develop and fabricate a practical prototype of a high degree-of-freedom dexterous manipulator for EOD and other missions requiring fine manipulation capabilities;
- Improve the situational awareness of the operator when controlling the dexterous manipulator from a remote, non-line-of-sight, location;
- Develop intelligent control strategies to allow the user to easily command the manipulator that improves upon the current method of primitive joint-by-joint control;
- Develop advanced sensor feedback capabilities, including force and tactile feedback, to assist the operator with delicate operations.

“This program is another example of the application of RE2’s innovative and robust robotic manipulator technology to overcome a known deficiency in current manipulator systems for EOD missions and similar complex applications,” stated Dr. Patrick Rowe, vice president of research and development for RE2, Inc.

“We are pleased to have been competitively selected by the Navy to develop a dexterous manipulation system that will improve the performance of existing mobile robot platforms and reduce time on target for complex EOD missions. This technology will also benefit domestic bomb squads, first responders, and other civilian applications that require enhanced manipulation capabilities,” states Jorgen Pedersen, president and chief executive officer for RE2, Inc.

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About RE2, Inc.

RE2, Inc. is a leading developer of intelligent modular manipulation systems and JAUS software solutions. The Company’s manipulation systems utilize the RE2 JAUS Software Development Kit to ensure interoperability with fielded robotic platforms. RE2’s customers include the Army, Navy, government labs, universities, and defense prime contractors. RE2’s expertise lends itself to several markets, including defense, law-enforcement, homeland security, and explosive ordnance disposal. To learn more about the RE2 JAUS SDK, visit www.resquared.com/JAUS-SDK.html. For more information, please visit www.resquared.com or call (412) 681-6382.

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