

**U.S. DoD-Japan METI
Terms of Reference
for
Humanitarian Assistance and Disaster Recovery:
Robotics Cooperation**

Conducting Humanitarian Assistance and Disaster Recovery missions has become an increasingly important priority in recent years of various departments, agencies, and ministries within the Governments of the United States of America and Japan. Close U.S.-Japan cooperation such as in Operation Tomodachi, in aftermath of the March 11, 2011 Great East Japan Earthquake, has encouraged greater engagement and collaboration among subject matter experts in responding to challenges in Humanitarian Assistance and Disaster Recovery.

The U.S. Department of Defense (U.S. DoD) and the Ministry of Economy, Trade, and Industry (METI) of Japan are leading contributors to the successful conduct of Humanitarian Assistance and Disaster Recovery missions. Further improvements to the conduct of these missions would be illustrated by the implementation of certain robotics technologies. In particular, Japan's METI supports a significant component of Government of Japan (GOJ) expertise in robotics technologies. Likewise, a significant portion of U.S. expertise in robotics research and technology (R&T) is funded and carried out by the U.S. DoD as part of its support to basic and applied R&T development and associated R&T activities at U.S. universities and DoD laboratories.

Japan's METI and the U.S. DoD (the "Participants") hereby establish this Robotics Cooperation in Humanitarian Assistance and Disaster Recovery Terms of Reference (TOR) reflecting the mutually held view that science and technology research activities will make an ever-greater contribution to U.S.-Japan collaborative activities and capabilities in the application of robotics to humanitarian assistance and disaster recovery.

The objective of this TOR is to allow the Participants to contribute to a more effective alliance relationship by promoting mutually beneficial cooperation between U.S. DoD/Japanese METI-affiliated R&T specialists in order to expand the Participants' capabilities in robotics for improved disaster response and recovery. Through increased cooperation, the Participants seek to reduce duplication, take advantage of economies of scale, and instill a culture of cost savings while protecting and prioritizing key investments in Humanitarian Assistance and Disaster Recovery.

Further, the Participants intend to share information on investments in new technologies regarding humanitarian assistance and disaster recovery to strengthen these capabilities. The information exchange also will help identify common interests and opportunities for future humanitarian robotics programs for potential cooperative research and development. Specifically, these efforts seek to assist in the development of robotics capabilities in situations requiring operating in the vicinity of nuclear reactors, differing levels of autonomy for different tasks, advanced manipulation, tools for enhanced situation awareness, etc., for humanitarian and disaster response and recovery applications.

As appropriate, the Participants may wish to establish working groups in specific areas of humanitarian robotics research and development, organize bilateral workshops and conferences, and conduct visits to their respective, affiliated universities and laboratories. For example, METI's participation in the U.S. Defense Advanced Research Projects Agency's (DARPA's) Robotics Challenge (DRC) in disaster response would be an interesting and valuable opportunity supportive of the objectives of this TOR.

Information shared under this TOR and relevant working groups, workshops, or conferences is to be limited to that which is open-source, including but not limited to fundamental research. For METI, technology transferred under future humanitarian robotics cooperative projects is to be limited to dual-use technology.

Each Participant is to provide a principal Point of Contact to facilitate interaction between METI and the U.S. DoD. For the U.S. DoD, the principal Point of Contact is the Assistant Secretary of Defense for Research and Engineering (ASD(R&E)). For METI, the principal Point of Contact is the Director General, Manufacturing Industries Bureau. Each principal Point of Contact may appoint designees to assist in carrying out these activities.

This TOR, in and of itself, does not create any authority to perform any work, award any contract, exchange controlled unclassified or classified information, transfer funds, or obligate in any way either Participant to make or provide any financial or nonfinancial contribution to the other Participant for any purpose. The conduct of cooperative projects identified by the Participants beyond the exchanges described above requires the establishment of separate arrangements.

This TOR becomes effective on the date of last signature. This document may be amended by mutual consent of the signatories. Either Participant may terminate this TOR upon 60 days written notification.

Assistant Secretary of Defense
Research and Engineering, (Acting)
U.S. Department of Defense

31 July 2013
Date

Director General
Manufacturing Industries Bureau
Japan Ministry of Economy, Trade, and Industry

31 July 2013
Date