

ON SITE SAFETY COMES FIRST

Be cautious, use common sense, and watch out for others!

Safety of all personnel participating in this event is our first concern. The fact that we have robotics personnel generally unaccustomed to working within the hazardous environments at these US&R training sites is particularly problematic. Having emergency responders generally unaccustomed to working with robots is also a concern. Please follow these simple guidelines:

- Appropriate personal protective equipment (PPE) must be worn at all times while on site (see associated page on PPE). Compliance with PPE rules are mandatory.
- Rubble piles and other difficult scenarios present the most risk to novices. If your robot needs to be extracted, please ask your associated emergency responder to retrieve it.
- Always maintain awareness of others working within your scenario and communicate your intentions **before** doing whatever you have in mind.
- Robots can do unpredictable things; the bigger/heavier the robot the more space you should allow it when operating. Always verify that the robot is powered off before interacting with it. Never stick your fingers into wheels, tracks, manipulator pinch points, etc. while the robot is powered on. Remotely teleoperated robots may be the most dangerous because the remote operator may not know you decided to perform on-the-spot maintenance! Always familiarize yourself with the EMERGENCY STOP procedures first -- and last -- before interacting with or operating robots. Some implementations are more predictable than others.
- If you see anything you consider unsafe in our environment, please inform the Test Director or any emergency responder on site, and let's discuss it at the daily after action briefing to be sure every potential hazard is addressed.
- **Everybody on site is a safety officer!**

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personal protective equipment (PPE) is a must for working within any US&R scenario at the site. People in street clothes or without helmets/gloves/etc as shown below are limited to paved roads only. If you are working within a scenario, you must wear ALL the equipment shown below. Compliance with these personal protective equipment rules are mandatory - it is standard practice for US&R environments.



- **Helmet** (Hard hats are okay. We have some to borrow or you can purchase at www.thefirestore.com/store/category.cfm?cID=1501 for \$75 and up.)
- **Ear protection** (we'll supply these)
- **Eye protection** (sunglasses are okay)
- **Long sleeve shirt**
- **Work gloves**
- **Long pants** (army surplus stores sell typical BDU and EMT pants)
- **Boots** (preferably steel toe)

Additional protective padding for knees and elbows is optional, but good for rubble piles.