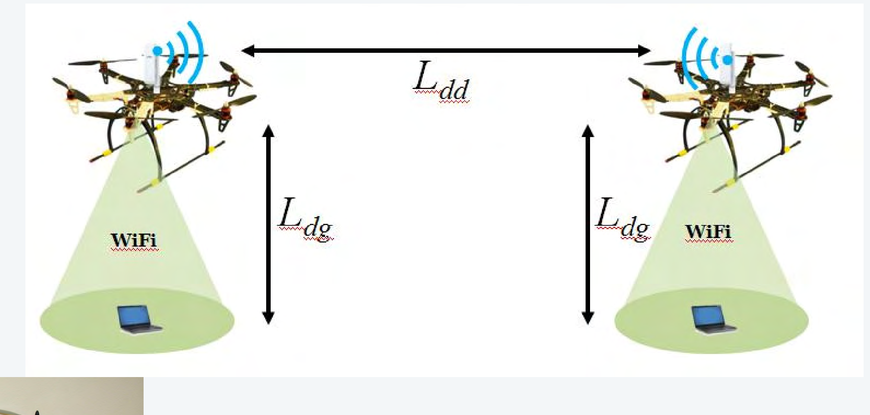
Station 3: Drone-Carried On-Demand Wi-Fi Networks

Communication Infrastructure for Emergencies

UNT UNIVERSITY OF NORTH TEXAS

Key Features

- Fast and flexible Wi-Fi networks deployment using drones
- Directional antennae and heading control for robust and long-range aerial communication on the move



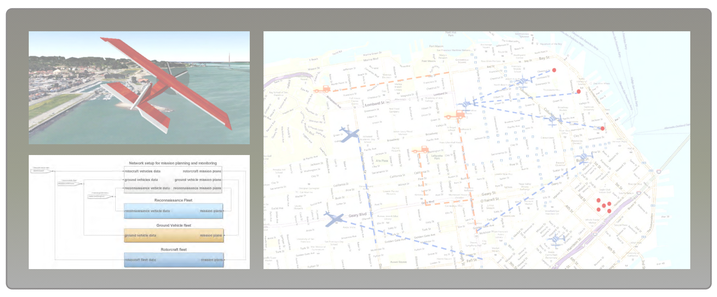
Broad Impacts

- New commercial drone applications and job markets
- New technologies for on-demand communication
- Fast emergency response to save lives

Collaborative Systems Lab (Boeing)

Booth Map

Station 4
Mission Command and Control Center
(MathWorks)



Station 3
Drone-Carried On-Demand Wi-Fi Networks
(University of North Texas)

Station 2
Smartphone App for Emergency Response
(MIT Media Lab)

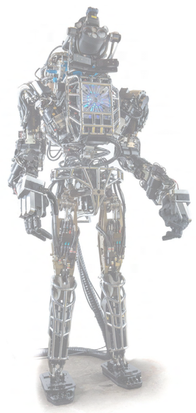
Relay

Help requests

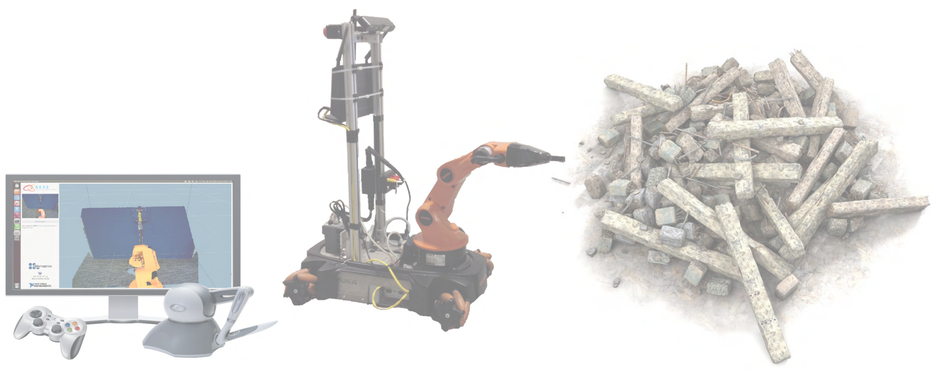
Sensor data

Deploy

Station 5
Humanoid Robot for Emergency Response
(Worcester Polytechnic Institute)



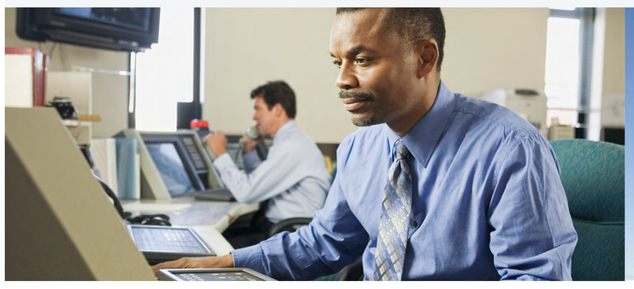
Station 6
Teleoperated Robot for Emergency Response
(BluHaptics | National Instruments | University of Washington)



Station 1
Cyber-Physical Search and Rescue Dog
(North Carolina State University)

Entrance

Exit



SERS
Smart Emergency Response System

BluHaptics | Boeing | MathWorks | MIT Media Lab | National Instruments | North Carolina State University
University of North Texas | University of Washington | Worcester Polytechnic Institute

Project realized for SmartAmerica Challenge, www.smartamerica.org, 2013–2014.
Team Lead: Justyna Zander, MathWorks Fellow at WPI, MathWorks, 3 Apple Hill Dr., Natick, MA 01760, USA.
Contact: dr.justyna.zander@ieee.org.