



Draper engineer Ken Houston (left) demonstrates recordings of helicopters and other heavy military vehicles to a Tech Expo visitor. These are used in the development of acoustic tracking and identification algorithms for miniature, battery-powered systems called unattended ground sensors.

## 2003 Technology Exposition

Each year, Draper Laboratory hosts a Technology Exposition (Tech Expo) that showcases recent projects and highlights Draper's core competencies. The 2003 Tech Expo was held on October 1 and 2, coinciding with the fall meeting of the Laboratory's Board of Directors and the Annual Meeting of the Corporation. In addition to employees and Corporation members, guests included students from local universities and Cambridge's public high school, as well as journalists and sponsors.

The exhibits featured technologies under development at Draper from across the Laboratory's program areas, including strategic, tactical, space systems, special operations, biomedical engineering, and independent research and development. The exhibits reflected the Laboratory's core competencies: guidance, navigation, and control; embedded, real-time software; microelectronics and packaging; autonomous systems; distributed systems; microelectromechanical systems; biomedical engineering; and prototyping system solutions. Many projects included graduate or undergraduate students on their teams, whose participation is coordinated through Draper's Education Office.

Tech Expo also featured Draper's subsidiary venture capital fund, Navigator Technology Ventures, LLC (NTV), which displayed information about its portfolio companies, Sionex Corp., Sand Video, Actuality Systems, Polychromix, Aircuity, and PLEJ Inc. NTV invited local venture capitalists to tour the Expo and examine the variety of technologies produced at Draper and potentially available for licensing through Draper's Technology Licensing Office.

Melissa Krebs (left) describes the novel microfabrication processes for biodegradable polymers in support of the development of cell-seeded scaffolds for the growth of vascularized tissues. This work ultimately will lead to the engineering of full replacement organs.



Draper Program Manager Rob Larsen (right) displays the robot control unit to Board Member Emeritus Daniel Fink.





Draper Laboratory, Langley Research Center, and the Jet Propulsion Laboratory are combining their talents to collaborate on future programs, particularly those directed at the exploration of Mars. Pictured above is the ARES rocket-powered Mars airplane, which is part of a proposed Mars Scout mission designed to perform an aerial regional-scale environmental survey of Mars.



Local Cambridge-area student observes the original Deep Submergence Rescue Vehicle (DSRV) Inertial Navigation System.

Director of Tactical Systems, Tom McNamara (left), and Business Development Manager, Joel Parry, discuss how the challenges of end-to-end precision weapon delivery and vehicle management systems development are being met through Draper's latest advances in autonomy, microelectromechanical systems (MEMS), and mission planning technology.

