NASA SBIR 2010 Phase I Solicitation

X12.01 Spaceflight Auscultation Capability

Lead Center: JSC

Participating Center(s): ARC

Analysis of body sounds for abnormalities is standard medical practice for diagnosing a medical condition. This call is for technology that can isolate internal body sounds (heart beating, breathing, etc.) in a potentially noisy ambient environment (up to 70 dBA) and capture the auscultation data to be managed and transmitted digitally to the appropriate destination for analysis.

Current commercially available systems have two main issues. Some systems pick up all sounds without filtering out the sounds of interest. Other systems use technology (e.g. doppler) that produce sounds that are not readily familiar to clinicians—thereby necessitating retraining.

Phase I Deliverable: Technical Feasibility Report; Draft Requirements Document

Phase II Deliverable: Prototype Hardware