BME464L Project (Fall 2013, Palmeri)

Inexpesive, Mobile Air Quality Monitors

Research / Community Problem

Air quality in research environments and communities can be of significant concern with respect to acute and chronic exposures that can lead to cancer, respiratory infections, asthma, and other repiratory ailments. Air quality monitoring devices can be used to alert people of harmful air quality conditions, but units can be expensive and immobile.

Project Objective

Design an air quality monitoring device that is small, mobile and has extended battery life. The device should be able to locally store air quality information in addition to wirelessly sending that information to an Android Nexus 7 tablet.

Research Contact

Dr. Mark Palmeri, M.D., Ph.D. (mark.palmeri@duke.edu)