This week, we obtained a CD of lung sounds from Dr. Ortega on September 21st to use in our classification algorithm differentiating between normal and abnormal lung sounds. Additionally, this week we began research into stethoscopes and their use in telemedicine and continued research into a computer-based measurement and analysis system of lung sounds.

From Polat and Guler, we learned that a setup capable of measuring lung sounds consists of a microphone, amplifier, high-pass filter, low-pass filter, 16-bit sound card, and portable computer. The system was capable of both real-time and recorded monitoring (by storing/retrieving sounds from a computer hard drive) [[1]](#footnote-21532).

From Hung et. Al, we learned that telemedicine is becoming of increasing importance due to rising healthcare costs with an aging population, and heart and lung diseases are becoming the most common diseases in developed countries. The stethoscope they proposed would have an acoustic sensor with a high sensitivity and a wide bandwidth as compared to other electronic stethoscopes[[2]](#footnote-3508)

1. Polat, Huseyin and Inan Guler. 2004. “A Simple Computer-Based Measurement and Analysis System of Pulmonary Auscultation Sounds.” *Journal of Medical Systems,* 28(6), 665-672. [↑](#footnote-ref-21532)
2. Hung, K, et. Al. 2004. “Multifunction Stethoscope for Telemedicine.” *IEEE/EMBS International Summer School on Medical Devices and Biosensors,* 87-89. [↑](#footnote-ref-3508)