Weekly Report 2: 9/8/14

Date: 9/8/14

Project Name: Commercial Nocturnal Asthma Monitor

Group Number: 26

Group Members: William Padovano, Chris Beyer, David Kim

Current status of project:

We have completed our project scope and met with our client on 9/5/14 to discuss general product specifications. We are currently brainstorming ways to monitor asthma and, in particular, are looking at tracking wheezes and coughs. We have also thought about tracking these signals in the time and/or frequency domain. We are particularly interested in short-time FFT, which will give information on the changing frequency spectra over time. This could allow us to accurately track signals in real-time.

Work planned for next week:

We plan to meet with our client to establish more precise design specifications. We will try to determine a characteristic short-time FFT for audio signals of wheezes and/or coughs, since these recordings can be made and analyzed readily on our computers. We are not limited to audio signals, however, and have thought about potentially measuring EMG, patient movement, or other metrics to gauge nocturnal asthma symptoms.

Anything needed from client or TA or instructor to continue work:

We would like our client to help us form product specifications.