## Crystal Breath

### Meeting #14: Splitting up tasks

4/25/2013 12:30 PM – 1:30 PM

Meeting called by: Crystal Breath

Attendees: Nicholas Castro, Suong Do, Joe Duffy, Joe Levri, John Mullaney

Agenda/Meeting Leader: Joe Duffy

Minutes: Joe Levri

#### <u>Time:</u> Action Item:

#### 12:30

- Continue work with programming our microcontroller.

# - Understand how the microcontroller samples an input signal. We know how it works in MATLAB. MATLAB takes an input signal (a .wav file in our testing) and assigns an amplitude to the sample based on the intensity of the sound. Hopefully we can use this same type of logic to program our microcontroller. Assign ranges of amplitudes that correspond to turning 9 LEDs on, 8, 7 etc.

- I think that we should use some kind of averaging over a number of samples to determine the intensity of the input sound, and then use that to determine how many LEDs to turn on.
- The seven-segment LEDs will also be a significant challenge, as determining breath rate will take a considerable amount of samples before we can get a reliable number. Any ideas?
- -Using example codes provided by the Microchip website, we should all have a firm grasp on some of the simpler coding techniques such as scaling the clock and setting ports as inputs and outputs.
- -Once our board is in, it will be imperative for us to solder our parts on as soon as possible to begin testing the board.

#### **Location:**

Stinson Remick

#### **Additional Information:**