Week 9 Group Report

Accessible Home
Vital Signs Monitoring System

Client Contact: Dr. John Enderle • University of Connecticut, Bronwell Building, Room 217C, 260 Glenbrook Road, Storrs, Connecticut 06269-2247 • Voice: (860) 486-5521 • FAX: (860) 486-2500 • Email: jenderle@bme.uconn.edu
Week 9 Accomplishments

- Jenna worked on completing both the scale and the blood pressure system.

- Rob got the LCD screen to initialize and send text and began work on the Bluetooth Module.

- Mike nearly completed the new website and also looked into the circuit that will power the device.
Jenna was able to find the tubing that she needed for the system.

She then proceeded to start building and testing the blood pressure system.

The setup for the experiment is shown to the right.
Jenna took the outputs from both load cells and ran them through a summing amplifier to add them together.

She used this to test for a linear relationship between voltage and weight.
When testing the scale it was difficult to get accurate results.

Since the load cells are so sensitive it is difficult to get repeat readings.

Once construction of the scale is done it should be easier to get more accurate readings.
LCD Screen

- Rob figured out the problem with the LCD screen and got it to initialize and display text.

- When he added a 4mhz oscillator he was able to display whatever text he desired.

- Using the LCDwritestring and LCDwritechar functions he was able to successfully display whatever text he wanted.
Bluetooth Kit

- When researching Rob found out that the kit will need serial communications to communicate with the microchip.

- This caused a problem because the SPO3 module also needs serial communication and the microchip only has one.

- He then found that the PIC18F4620 has the ability to utilize 2 USART connections that will solve the problem.
Website

- Mike worked on the new website that is required for the competition.

- This new website must be password protected and allow for user to upload and download files from the site.
To accomplish the new website, Dreamweaver was used.

Mike never worked with Dreamweaver before so it took a while to become familiar with writing in HTML.

He is nearly complete with the website. The new site is set with the file upload directory and he is just about done figuring out how to make it password protected.

The website will be done within a day.
Future Work

- Jenna plans to finish up the scale and blood pressure systems and also start the PCB design.

- Rob plans to run our signals through the microchip and out to the display and speech chip. He will begin work on the Bluetooth Kit.

- Mike will finish the website by Friday and begin work on the Power circuit. He also plans to start looking for cases for the project.
Hours Worked

- Jenna- 15 hours
- Mike- 12 hours
- Rob- 19 hours
- The current budget is-$1021.03