

IOWA STATE UNIVERSITY

Senior Design Weekly Report

Weekly Report 15

Group: May-06

Group member: Chongli Cai, Qiaoya Cui, David Hoffman, Andrew Kom, Ailing Mei

Client: Garmin International

Advisor: Dr. Collin Christy

Period: 1/28/2013-2/3/2013

Date: 2/3/2013

Goals to Meet

This week we wanted to continue to work on our MSP430 communication and programming. Specifically, get the LCD screen displaying information. We also wanted to work on the other systems that will feed into the ADCs on the microcontroller.

Weekly Progress

Our meeting last Friday was a bit eye-opening. We met with Dr. Christy again, and he was able to steer us toward a more efficient way of getting things done. Up until last week, we had a big problem of the programming of the controller being a tight bottleneck, leaving most people not knowing what to do. During the meeting, he discussed how we should all have more than one person programming. After this meeting, it was brought to my attention that most, if not all, of the group members had their own MSP430 Launchpad boards. Some had even started programming the ADC to read the output of their measuring circuit.

This last week, we got our LCD display working in parallel mode, and worked on getting it to display in serial as well. We also got a circuit designed for the temperature sensing, and have started the ADC programming to measure that. Additionally, we have a circuit designed for the Voltage measurements, and are running tests on its accuracy and reliability this week.

Future Planning

One clear future goal is to have everyone doing the programming side of the project, even if it is a different aspect, such as ADC programming instead of UART. We will need to do a better job of dividing up the work, to speed up our progress, and to make the work load more even.

Pending Issues

On a technical side, we still are being cautious of running into problems with not enough timers. This is something that we need to get determined soon.

On a non-technical side, we need to do a better job of working together, as a team, rather than independently. This division makes it hard to know where people are at on their parts, and leaves group members wondering what the current goal is.

Individual Contributions

Andrew:

Weekly Report 15	1 hour
LCD coding and testing	4 hours

Chongli:

Voltage measuring circuit testing and ADC programming	3 hours
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Ailing:

Voltage measuring circuit testing and ADC programming 3 hours

Qiaoya:

ADC programming of temperature sensor 2 hours

David:

UART Voltage leveler testing 2 hours

LCD coding and testing 3.5 hours

LCD coding and testing 5 hours