

# EE 491 Weekly Report    MAY1633    Week 8(10/21/15-10/27/15)

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**Advisors:** Dr. Daji Qiao, Dr. Long Que

**Client:**

**Members (roles):** Schilling, Anthony (Team Leader)

Bennett, Tyler (Concept Keeper)

Li, Liuchang (Web Master)

Lin, Haisong

Tian, Yang(Communication Leader)

**Time:** Oct 26<sup>th</sup> 2015

**Project Title:** Portable Nutrient Data Collection System Based on MEMS Sensors and Smartphone technologies

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## Summary and Accomplishments

The main goal of this week is to compare easiness of programming on different board and ask for suggestion from other people, such as professor and experienced technician.

WHO	WHAT	HOURS
Anthony	<ul style="list-style-type: none"><li>Research the code example and community of Atmel module(3)</li></ul>	3
LiuChang	<ul style="list-style-type: none"><li>Research the code examples and software of the Silicon Labs' module(3)</li><li>Discuss the options with other group and professor (1)</li></ul>	4
Haisong	<ul style="list-style-type: none"><li>Research code examples sources of Telink Modules (3)</li></ul>	3
Tyler	<ul style="list-style-type: none"><li>Research the code examples of Free Scale modules (3)</li></ul>	3
Yang	<ul style="list-style-type: none"><li>Research code example sources and communities of NXP modules (3)</li><li>Discuss the options with professor (1)</li></ul>	4

## Meeting notes:

1. This week we asked Dr. Philip Jones about what kind of Bluetooth modules we should choose and what is more important for the current situation. He suggested us to find a easy-programmable would be very important for us right now, because we need to get a development board to learn how to program on a specific board.
2. After the comparison of the sources about code examples, we decide to use Atmel ATBTLC1000 as our target Bluetooth module, the following is the advantages:
  - Size is small (2 x 2 mm<sup>2</sup>)
  - Low power consumption (2.9mA peak TX current, 4.0mA peal RX current)
  - Relative large RAM (128 kB, TI cc2540 is only 8 kB)
  - Cheap evaluation kit (\$ 108)

We also did some research about the NXP chip, it seems more popular outside of the U.S. there is almost no community having a discussion or some application about the NXP module. Although it also have low power consumption and low price, but is t

3. The forms of ordering components about EE491 is changed, needs to be verified

## Pending issues

1. Confirmation of the forms of ordering parts in class
2. Prepare to learn how to use Atmel ATBTLC1000 evaluation board.

## Plans for next week

1. Prepare for learning the evaluation kit