Sprint Evaluation

Since this was the first sprint and the ideas for specifications of our project is not very certain yet, we spent this sprint with having researches generally. Our questions in the beginning of the sprint were mostly about the weight measurement of the food and the transfer of this data to an environment that we can build some smart algorithms such as recipe recommendation, creating a shopping list by recognition of often used products etc. For the measurement we found out that we should use some sensor and for the data we should use some microcontroller.

Sensor decision:
In the light of our researches, we have seen that our options are load cell sensors, force sensors and pressure sensors. Between all these three we considered on the load cell sensors as it is known as more accurate than the others since the sensitivity of it is higher and error percentage is lower. Also, its calibration is adjusted by manufacturer so it will be simpler to implement.

Microcontroller decision:
After our researches, we have lowered our options into four different brand boards that are Rapsberry Pi, Intel Galileo or Edison, and Arduino. Although one of our group members is working for Intel and therefore, our access to Intel boards was easier, we have decided that we should use Arduino Uno microcontroller board because during our researches we have seen a lot of example usage of Arduino Uno with load cells. Since it is going to be our first experience with sensors and microcontroller boards, We decided that the best choice for us is the one that we can find more documentation and examples about on the web.

Amplifier decision:
Since the value our sensor will transmit will be really low, we realized we also need a amplifier to be bridge between our sensor and microcontroller. After several research and documentation, we decided we need INA125P Amplifier.

Team evaluation

We determined a meeting routine to come together on Thursdays. Our meetings takes place once a week for now, however, they will more frequently as our project makes progress. Up to now, we had five meetings. On top of this, We also get together with our assistant for further help and evaluation every Thursday.

Since our first sprint includes researches and decisions, we have done almost everything together. When our workload is increased, each of us will have different tasks assigned. Even then, we wish to keep it that way. Our project has several different components and it is essential for us to coordinate.

We try to use Open Project more frequently and more efficiently. We do not plan to make any changes on our task distribution for now, it will be stated in the following retrospective documents if we do.

Task	Assigned Member	1st week	2nd week	3rd week
Research on similar products	All members	*	*	
Gathering information about hardware and network components	All members		*	*
Determination of the board to be used	All members			*
Determination of weighing sensor technology	All members			*

Backlog Updates

After our researches, we have not been able to make a certain decision on the data transfer method. We plan to use WiFi Shield for Arduino to carry out the transfer through wifi connection. Also, we plan to create a server from our computers and receive the data to store it in the database. These specifications are not crystal clear yet, so we will work on them and clarify the system architecture before we move to the next phase.