

Team Meeting #1 – 01/23/15

Agenda

- Budget questions.
- General questions about project.

Minutes

- Do we have access to the traffic controller?
 - No, but we may want to conceptually address this.
- Look at the IEEE Spectrum article over possible technologies.
- Assess one technology from the article.
 - Find something that can work in areas larger than Moscow crosswalks.
- Want to communicate back to the pedestrian.
- Give support for multiple users.
- Think about how weather might affect our chosen option.

Team Meeting #2 – 01/30/15

Agenda

- More clarification on budget.
- Considered technology options
 - Costs, type, limitations – come up with a preferred option.
- General questions.

Minutes

- Budget has been approved around \$1,200.
- Consider using a Zyboboard interface.
- Consider looking into Matlab image processing.
- FreeScale Sensor Fusion, ‘fusing’ data from multiple sensors.
- Could look into using the Q-track over wifi.
- We need to schedule a formal client interview.
- From this interview figure out our initial specifications.

Team Meeting #3 – 02/13/15

Agenda

- Get verification of our client interview, project timeline and initial specifications.
- Talk about ordering the FreeScale Sensor Fusion development kit

Minutes

- Client interview, project timeline and initial specifications are all verified as being reasonable.
- Got the go ahead to order, make sure not to pay sales tax.
- We need to be able to sense if there is low accuracy for any reason and take that into account.
 - May be able to figure out some sort of error correction.
 - May just sense the error and not provide assistance in such conditions

Weekly Meeting #4 – 02/20/15

Agenda

- Sensor Fusion has been ordered, we are still waiting for it to arrive.
- We are entering the device and equipment learning/research phase of our project timeline.

Minutes

- Not much to talk about, just waiting for the Sensor Fusion to arrive

Weekly Meeting #5 – 02/27/15

Agenda

- The board is in, let's take a look.

Minutes

- The board was examined, next steps were discussed.
 - We need to install software and start to learn how to use it in conjunction with the Sensor Fusion.
 - Start small. Blinking LED test or something of that nature

Weekly Meeting #6 - 03/06/15

Agenda

- Explain the Kinetis IDE to be able to code and program the device.
- Questions on specifics/deliverables for snapshot day
- Redefine the project summary for the Expo

Minutes

- Expo summary was redefined and can be used as a project definition for our portfolio
- Specifics on the poster
 - Diagram of the board/sensors. Including a block schematic of the board.
 - A title page, team members, methods, specifications.
- There is no way to pinpoint a starting location of the pedestrian.
 - Start at the crosswalk button to get a point of reference and use the acceleration data to predict the pedestrian's path.
- Dr. Frenzel has a book of math libraries for coding in C.

Weekly Meeting #7 - 03/13/15

Agenda

- We learned how to program the board!
 - Used a pre-compiled program that sets LED color to red and blinks it once per second.
- Are working on how to use the Kinetis IDE to build a program.
 - Are currently having problems including the necessary libraries.
- Have spent most of the last week working on snapshot day.

Minutes

- Got the numerical recipes book in C from Dr. Frenzel, will examine it for possible solutions for our use.
- Want to be able to normalize the xyz axis so we don't have to worry about the orientation of the device when examining the data.

Weekly Meeting #8 - 04/06/15

Agenda

- We need to schedule a design review.
- We have found functions needed to acquire information.
- We need to figure out how the information will be presented to us.
- Kinetis IDE has labs to demonstrate how to use it.

Minutes

- We are provided with an RTOS to use.
- We are provided with a function that uses a 9-axis system (accelerometer, gyroscope, magnetometer). It can take acceleration data from the orientation of the device and fit it to the Earth's frame of reference. Given in North, East and Up.
- Design review needs to be power point format. Make sure to pay specific attention to aesthetics.
- NIATT may be interested in our project. They may want us to give a short presentation the day before Expo.

Weekly Meeting #9 - 04/10/15

Agenda

- We followed the lab steps for the Kinetis IDE but can't build a binary file.
- Are going to try to use Codewarrior IDE instead of Kinetis.

Minutes

- Design review will be Friday, April 17, 2015 at 2:30 in GJL 218.
- We can still drag and drop the provided binary file onto into the sensor fusion drive and the board will work. The problem seems to be in the IDE.