

Spike Plan

Name: JohnnyFive-Socket

Context:

For this spike, it was separated into 3 pairs of file such as spike1.html, spike1.js and spike2.html, spike2.js and spike3.html, spike3.js. The first pair of files will only include the basic features of the spike. More features will be implemented into the spike by separating into different pair of files, so that this spike can be understand easily. By separating into 3 pairs of different files, if there are any bugs, it will help us on searching where the bugs will be. The features are tested by using an Arduino board which consists of LED function and motion function but for this spike, only motion function is tested. Johnny Five is used as a communication platform between the server side and Arduino board. For spike1.html and spike1.js, the server will only perform reading data from the motion sensor and print the timestamp of the motion. For spike2.html and spike2.js, the server collects motion data and send it to the client side for display purposes. Lastly, for spike3.html and spike3.js, the client will receive motion data from the server using Socket.io and display the motion data, the timestamp of the server and the time taken for the server to send data to the client which labeled as response time.

Gap:

For this spike, program bug risk can be avoided and handled easily when code structures are handled with consistency and systematically. Features are separated to reduce the complexity of the code and keep track of the progress. It also contributes to the compilation of code to be easier.

Goals:

- Understand the Socket library
- Check whether the device was connected to the server.
- Check if data was sent correctly.
- Check the time taken for the data sent from server to client.

Planned start date: 18/4/2017

Deadline: 23/4/2017

Planning notes:

Firstly, we have a small discussion regarding the requirements for this spike. Understanding the requirements gave us the insight to know the code and implement the features easily. Once the requirements are known, we planned of a design to display our results. We used google search as part of helping our understanding towards the library code, code structures, and syntax. Whenever there is a problem with the coding, the problem will be solved together. We also plan

to reduce the bug risk and have better code structures by separating the features. We share the same workspace and the code was implemented together through GitHub so the responsibility and work coordination can be handled easily.