Week 4 Review

When I started week 4 I had created some sketches for my Urban Farming device, and also some wireframes for an app that I wanted to connect with the device. I had also started working on another little device that would detect the proximity of Urban Farms in your area and give of a relative signal to let you know how close you were to one.

However, my work had reached a challenging stage where I did not know how to move to the next stage of creating my product. I had no experience or knowledge of working in the workshops so I was having some trouble with this idea.

I discussed this problem with Fraser when we had our meeting and he suggested that I would do better to focus on my area of strengths. So I could focus more on my background of user experience and not have to worry so much about how to create the physical product. I also discussed this with Jon and Martin, who were both supportive of it. This was a great relief to me and it allowed me to find more direction for my work. I could focus more on my strengths, work on the online prototype rather than a physical one. I could also create simple paper prototypes to represent my concept with Arduino.

At this point I decided not to pursue the idea of a GPS device any further, instead I worked on the mobile app and the measuring device made using Arduino. I chose the name “U Farm” for the Urban Farming mobile App, it conveyed the meaning, sounded appealing and was easy to remember. I liked the name so I decided to use it for my project. I created wireframes and a basic interface for the app, and started putting them together in an online prototype using the tool Invision.

On Arduino I worked on a device that would measure the amount of food present at specific locations and relay that information to the app. Anyone in the neighbourhood with the app could then find out where to go for the specific category of food they were looking for, or generally to visit an Urban Farm if they were interested. I wanted to use a sensor that would measure weight and then I could connect that with LEDs that would represent a signal shown on the app. Force sensitive resistors would serve this purpose, however these were not present at the lab or in our kit. I considered buying them online, I found one on proto-pic.co.uk, however they had only one and I had some trouble with online ordering.

I decided that I could demonstrate the sensor another way. I could use light dependant resistors, set up in a way that would detect whether a container of food was empty or had food in it. The actual product would not work using LDR’s of course, it would need to have more elaborate sensors put up to give more accurate data. However, for my experiential prototype, I just needed to create a signal for “empty” or “full” states and an LDR would serve the purpose.

I ended up using two LDRs to measure the state of a vegetable and a fruit container. I also used a real map with my LEDs to demonstrates how an area would light up on your online map if it had the relevant food category. The physical prototype I made was quite low-fidelity, but it was able to show how the device would work. I placed a bit of real fruit and vegetables into the paper containers to represent their use. I also combined this with my online prototype for the mobile app, and put them together in the final video.

