**Lumi Progress Report**

**Week 5**

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**Lumi Physical Format**

Emailed Austin about this cuz I have no idea what this is about

//more stuff here

**Progress In-Depth**

**Mobile Application**

In the past two weeks, Richard has been able to condense the mobile app to functionalities specifically to compliment the hardware. The UI has also been modified to mirror the changes in the exclusion of unnecessary functionalities. Lumi’s mobile app is now able to enable/disable lights from the NeoPixel ring, enable/disable sound activation, light pattern options for the NeoPixel including rainbow, strobe, and solid RGB. These functionalities have been tested up to the mobile app and further integration with work by Ruel will continue the data input testing to the hardware.

Currently the progress on the application primarily involves sending and fetching input data to the Firebase Database as a means of testing for future full implementation.

**Hardware Python Coding**

The python code that is run on the Raspberry Pi is to control the activity of the sensors that are being used. The code can is used to change the RGB values on the NeoPixel. The Lumi also implements the sound sensor and that sensor will trigger the NeoPixel ring and light up according to the RGB values set. The way that that hardware works with the python code created is that the program takes both of the sensors together and has an output of the NeoPixel ring lighting up due to the sound sensor picking up the baby crying.

The current progress with the hardware is just having the ability to have all of the components of the Lumi such as the raspberry pi, neopixel ring sensor and the sound sensor to be incorporated into one shell.

**Google Firebase Database**

//RJ type stuff here

**Project Obstacles & Difficulties**

**Lumi 3D Shell**

The softworks shell provided by our collaborator David Neumann has been found to be too small to house our Raspberry Pi 3. The current progress on this aspect of the hardware is to enlarge the shell in a 3D software designing platform. We expect it to be 200-250% larger than the original. The difficulty lies with learning the platform in order to successfully complete this task with minimal to no design flaws during 3D printing.

//talk about your difficulties here

**Project Financials**

No real changes has been made to the hardware that required deviations from the original financial plans. The modifications made to the 3D Lumi shell has fortunately been provided for free through Humber College.