Journal 3

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1 Progress Log

Rebuilt the application from the ground up with new knowledge of how Android applications are structured. The code is now much cleaner and the UI elements are properly constrained.

Created the functionality to actually pair with another device and send commands to it.

Set up the functionality to control an LED over Bluetooth - turn on/off, increase/decrease brightness, disconnect Bluetooth.

Wrote an Arduino program to manipulate the LED when instructed to by the Bluetooth connection.

Wired up a simple circuit with one LED and a 220-ohm resistor in parallel.

Started working on data persistence and internal storage of data. Not sure yet how data is going to be stored, probably as CSVs.

To practice, made a basic counter app that u can increment and decrement the counter and the changes will remain between sessions of usage of the application. Does not yet correctly read data from the internally written file.

2 Next Steps

The first thing to do next is to test the Bluetooth pairing with the Bluetooth module and test the capability of the application to manipulate the LED. After that it should be relatively simple to begin communicating with the sensor modules. Once that is complete I will need to store the data the movement data we acquire from the sensors and store it internally on the Samsung Galaxy S6, to be sent to my partner Lance to begin developing the neural network.

3 Reflection

I neglected to retrieve the Blueooth module from Patrick before leaving for the weekend so I wasn't able to test the progress made on the application. In the meantime I researched data permanence methods for Android and started working on an implementation for it. My partners and I are itching to complete

this preliminary setup and begin actually collecting data for the actual focus of the project: distinguishing between distinct lacrosse oriented movements.