Student Name : Ruairi Byrne

Project Repo URL : https://github.com/ruairikbyrne/iotproj

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| Grade Band | Combined Knowledge | Networking Technologies | IoT Solution | Communication |
| Base | Computer systems, programming (javascript) | Use of WiFi, and TCP/IP to connect raspberry Pi to router. |  | Readme and video demonstration created. |
| Good | blynk | Use of Bluetooth LE to connect/read from the puck.js | I feel that my solution offers an IoT and domain application. | Repository and presentation created |
| Excellent | Matlab language used for analysis and visualisations. | MQTT to connect to a broker (ThingSpeak) and publish data. |  |  |
| Outstanding |  |  |  |  |

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Additional Comments:

Initially I was going to use Firebase to store the data gathered by the raspberry Pi and I successfully setup the connection between the raspberry Pi and Firebase and loaded data into the collection, however I found that Firebase had limitations with running aggregate queries on the data collection so I instead decided to use Thingspeak and Matlab Visualisations.

Also due to a limit in my unregistered version of Thingspeak I was unable to use the sendmail function, however I have setup alerts that email weekly updates to a specified mailbox.

I have included login details below for Thingspeak as I have been unable to load my Matlab Analysis and Matlab Visualisations in my github repository. (<https://thingspeak.com/channels/1248267/private_show> - [20091382@wit.ie](mailto:20091382@wit.ie) Compsys2020%)

