Student Name : Sheamus Clifford

Project Repo URL : <https://github.com/SCLIFFORD78/heating_control.git>

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| --- | --- | --- | --- | --- |
| Grade Band | Combined Knowledge | Networking Technologies | IoT Solution | Communication |
| Base | 2 strands Used, computer systems and networks and databases | Serial comms between Arduino’s and raspberry pi added | Values and states from multiple sensors and actuators published and subscribed | Read me and overview video added |
| Good | Additionally, used Programming strand |  | Local server processes MQTT data, stores to SQL and sends to thingspeak for data analytics and storage | Additional presentation documentation documents added |
| Excellent | Additionally, used Web development to implement a simple dashboard | http connection between thingspeak and local server. Blynk app | Concept proven to add system to existing in field setup to live feed data to users | Additional overview videos added. Git large file storage added. |
| Outstanding | Knowledge used from Programming, Computer systems and networks, databases, and ICT skills. Arduino programming in C++ knowledge self-gained. | Used MQTT broker to send data and subscribe and thingspeak for data storage and analytics. Blynk app for sending and receiving data | Could be used as an add on to existing systems with some work to at least send data for customers to be able to remote monitor their systems | N/A |

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Additional Comments:

Combined video.mp4 for submission overview video, also in following link <https://youtu.be/F-mWeRQDeKE>.

SQL data base dump file in SQL folder.

My deepest sincere apologies for the time on the video but I have a lot going on, probably too much….

