

Project Title: Cross protocol message propagation in a home control network.

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Develop systems and methodologies to enable disparate physical and message structures to be seamlessly interconnected.

Learning Objectives:

1. Study:
 - a. Electronic and communication systems
 - b. Electromagnetic propagation principles
 - c. Protocols such as WiFi, Bluetooth and Insteon
 - d. Interconnected device requirements, protocol structures and conversions
2. Analysis:
 - a. The ability to determine protocol message content mapping from one to another.
3. Implementation:
 - a. Create an IoT / Smarthome protocol bridge to leverage the strengths of several common home protocols to allow seamless ease of use by the consumer.

Design tool used (include but are not limited to):

- Python
- Ethereal and Wireshark
- C
- Other tools TBD

Project Diagram:

TBD