# IoT Project

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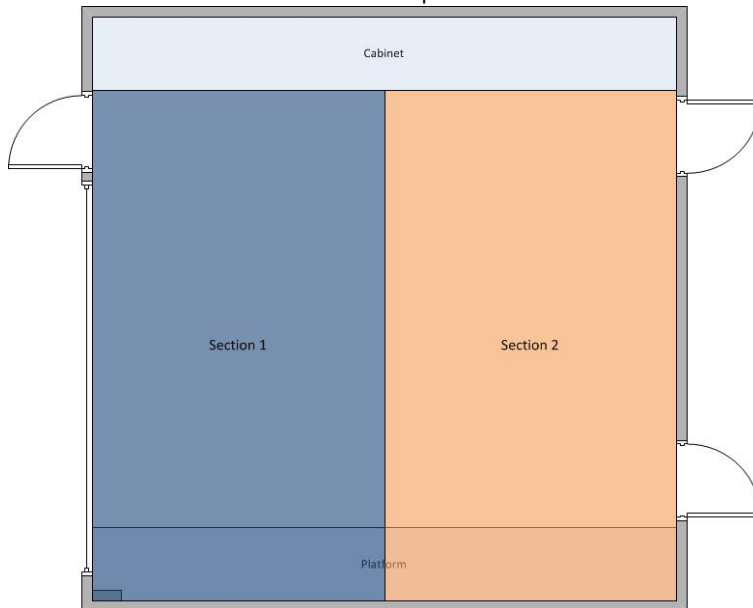**Due** Apr 4 by 11:59pm      **Points** 0      **Submitting** on paper

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The IoT project is a web site that shows the actual temperature of the room G405. The system would consist of several node sensors that collect temperature data from different sections of the room. The website consists of two pages: the main page shows the all the temperature data in the different sections in room and a temperature history page that shows the different sensor nodes and its status. Project specification is as follows:

- Sensor nodes
  - Two sensor nodes that gather temperature from different sections of the room
    - Each section of the room has a node gathering data temperature data
  - The room section division show in the picture below



  - Sensor nodes can use the XBee transceiver for communication
  - Sensor node sends heartbeat data
- Gateway
  - Use the MQTT broker as middleware communication
  - Can have several topics for collecting data and controlling the nodes
  - Collects data from the sensor nodes
- Web Site
  - A main page shows the current temperature of the room
  - A secondary page that shows the temperature history of the room
  - Sampling of temperature should be every 1 minute and should have time stamp