Final Project Guidelines

For your final project, your team must implement a proof of concept wireless sensor system using sensors and actuator(s) of your choosing. As a proof of concept, your team’s system does NOT need to be polished or “productized”, but MUST be fully functional.

The wireless sensor system must meet the following minimum requirements:

- system must have at least two sensor inputs
- system must have at least one actuator output
- system must have some form of wireless connectivity
- system must have base station code written in Python
- system must store sensor data in time-stamped files (or database)
- system must be 100% autonomous (once initiated)
- system must be stable and highly fault tolerant (e.g., flag missing data)

During finals, each team must do a 10-minute presentation describing their wireless sensor system in detail. The presentation must include:

- details of the system's design (e.g., state diagrams),
- visualizations of previously collected data, and
- a demonstration.

In addition, each team must submit all code used to implement the wireless sensor system.

Assessment:

- **50% - Presentation** (during last week of class)
  - Thoughtful and accurate system design
  - Clear visualization(s) of previously collected data
  - System works during demonstration
  - Well-rehearsed (not improvised)
  - Timely (close to 10 minutes)

- **50% - Code** (submitted to Canvas)
  - Memory efficient
  - Stable and fault tolerant (hard to break)
  - “Clean” and well-organized
  - Meaningful comments

**BONUS:** +5 points on your midterm if your team implements a web application that interacts with the wireless system.