**Mini Project Elec Subsystem: ATmega Sensor Interfacing and Integration**

Problem Statement:

Integrate various sensors like GPS, barometric sensor with ATmega development board. Start with GPS sensor and move on to Barometric Sensor. Make sure the code is modular and can be expanded for other functionalities. Use the available architecture judiciously as it may be needed to expand functionality. Make a readme file and explain the data format and variables used in the code along with proper comments in the code. Make sure that the setup can be used for real time data extraction.

Milestones:

1. Start with GPS documentation and datasheet
2. Implement the GPS - ATmega UART link
3. Read the barometric sensor documentation
4. Implement the sensor with ATmega I2C link
5. Integrate both the sensors
6. Use Interrupts wherever needed

Bonus:

Design a GUI on Matlab to gather data from the sensors through microcontroller. The GUI must convert the voltage data into proper physical readings using calibration equations.

Inventory: ATmega , sensors, programming accessories.

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