

Mini-Project Proposal
EE/COMPE 496A – Senior Design
Due: Wednesday, 4 April 2018 - 9:30am

Spring 2018

Background:

The required mini-project is to design, test and document a small electronic system capable of solving a simple task. A typical Mini-Project will contain a microcontroller, a sensor and some type of actuator or other output device. Each student will design and assemble a custom PCB to implement their design. Once the design is functional the student will evaluate the performance against a set of pre-defined specifications.

Proposal:

A short (1-2 pages) proposal must be submitted before you begin working on your Mini-Project. The proposal will contain the following items:

- A statement of need for the project. What is the problem to be solved by your project?
- A description of how your project will operate from the moment power is applied through the full planned operation of the system.
- A block diagram showing the key parts of the design and their interrelationship (see Figure 1 below).
- A list of components that will be needed for the project. The component list can be general, for instance if you need an op-amp you can simply describe the functionality, such as “Low Voltage Rail-to-Rail Operational Amplifier” as opposed to listing a specific part number.
- A description of the power source that your project will use including the anticipated operating voltage and estimated current requirements.
- A set of performance specifications that your project will be designed to meet. The performance goals must be verifiable using standard test equipment.

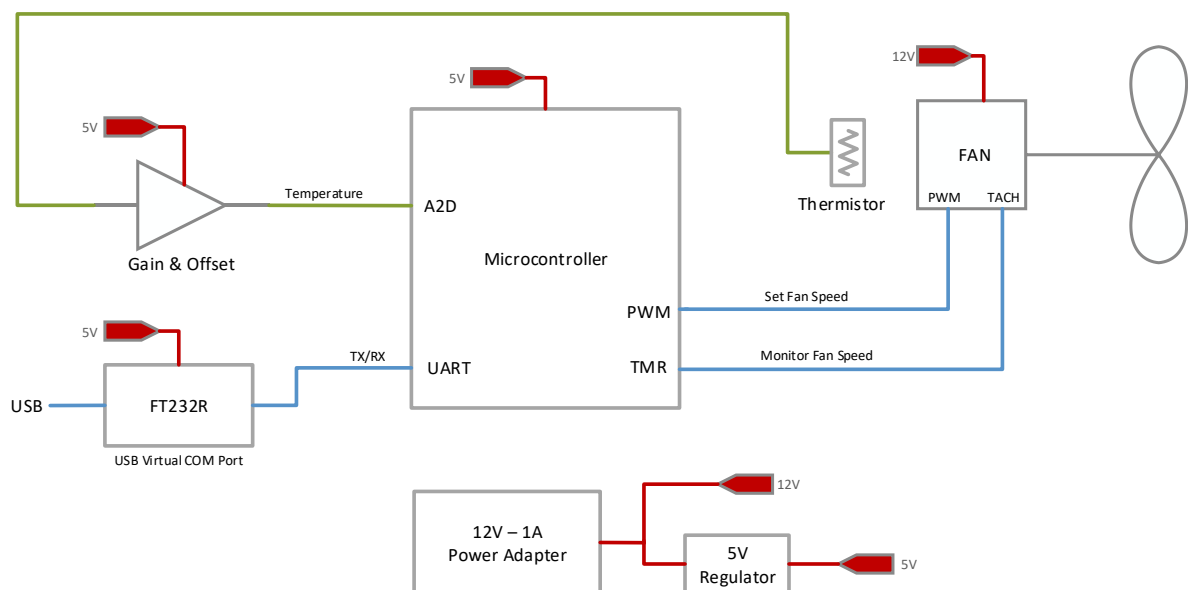


Figure 1: Example of Block Diagram for a Temperature Controlled Fan