Phase 2

Robustness Diagram

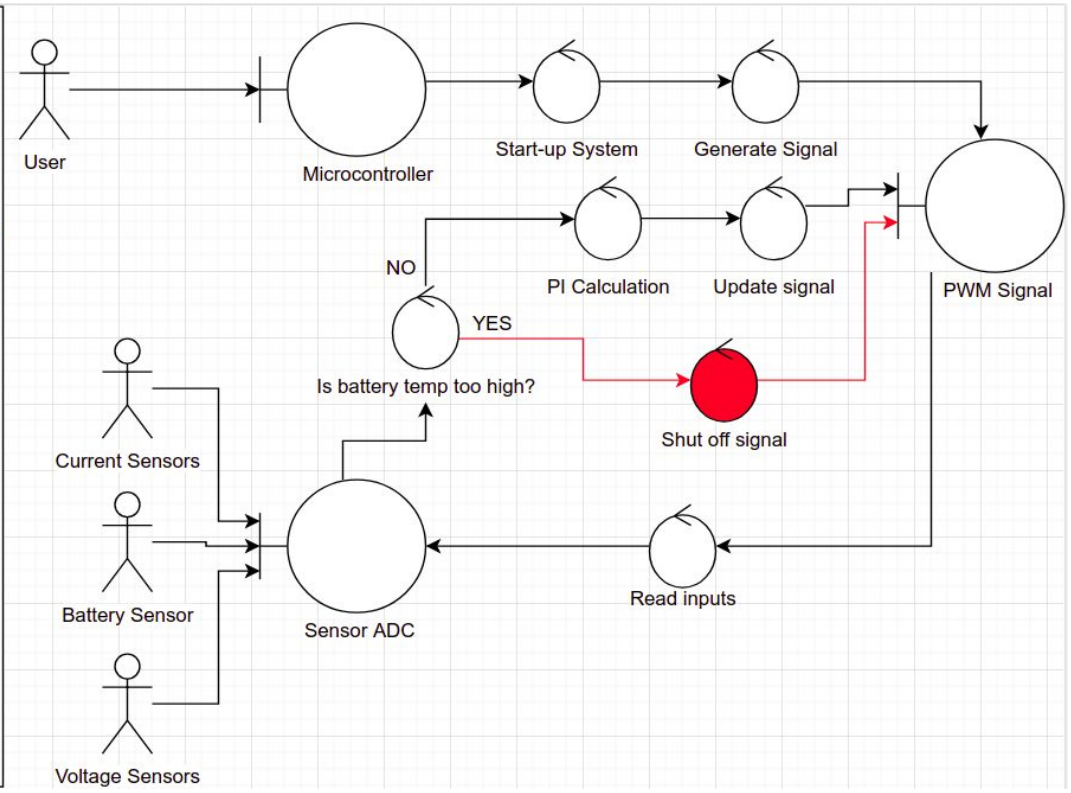
Current/Voltage Measurement

BASIC COURSE:

The User starts up the PV Smoothing System. The system generates a PWM Signal and loops through the following steps indefinitely; reads Voltage, Current, and Battery Sensor input from Senor ADC, checks to see if battery temperature is above limit, performs PI calculation, and updates the PWM Signal.

ALTERNATE COURSES:

Battery temperature is too high: The system shuts off the PWM signal.



Sequence Diagram

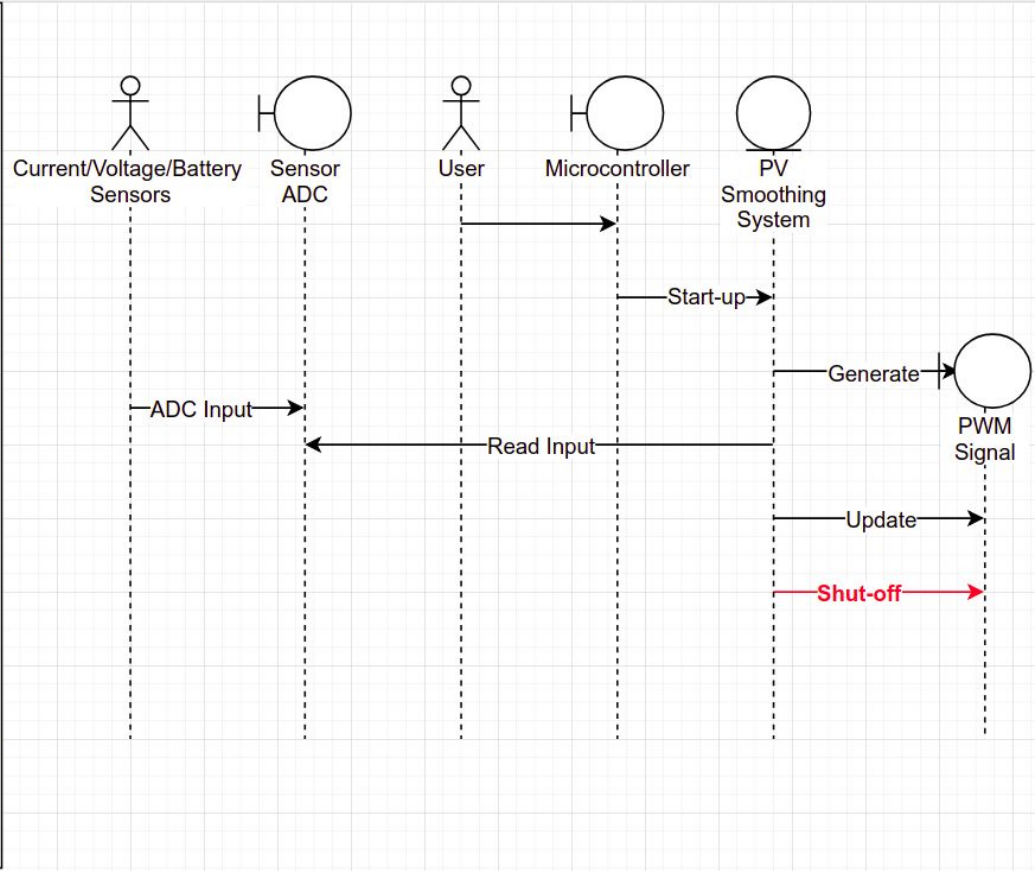
Current/Voltage Measurement

BASIC COURSE:

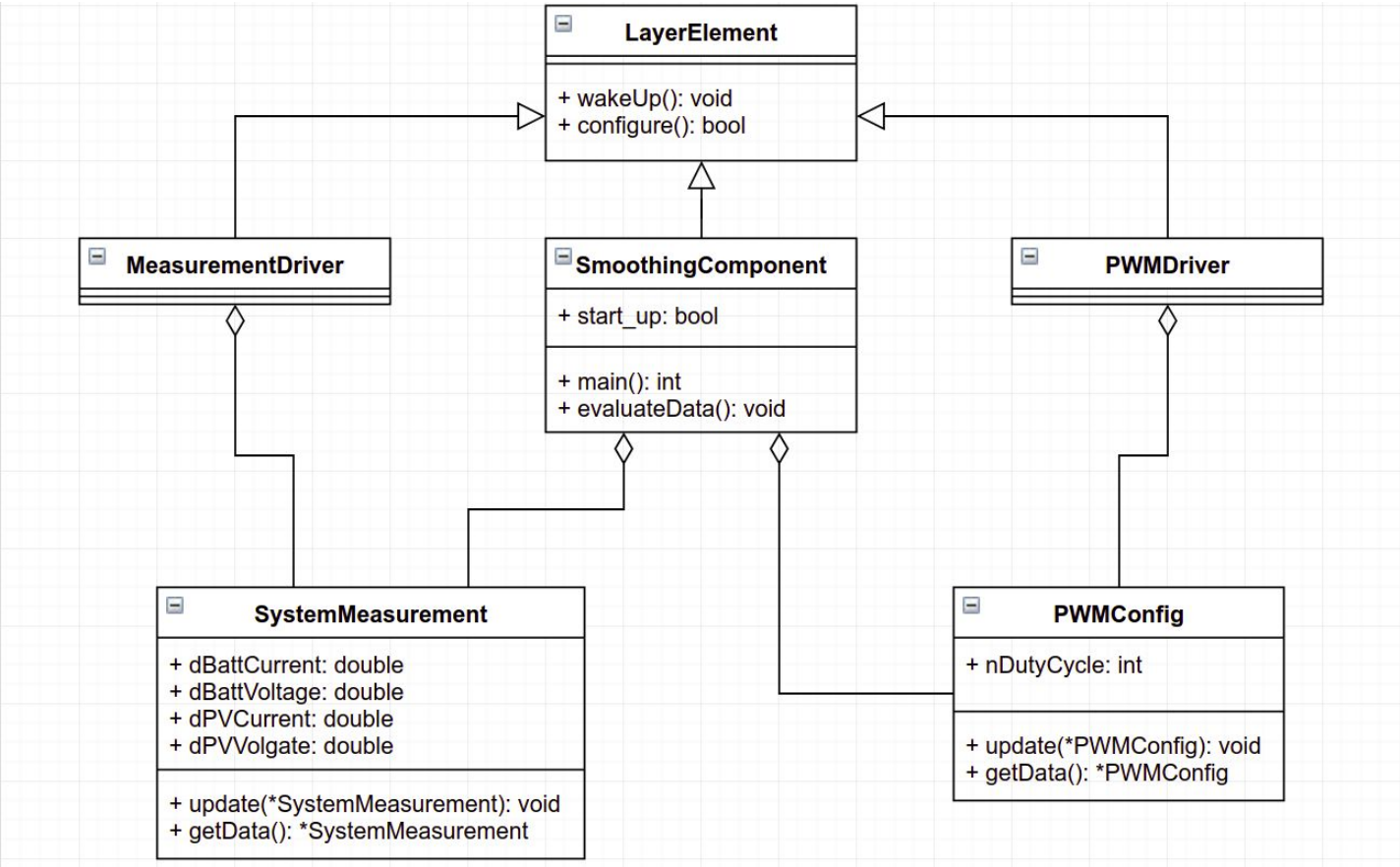
The User starts up the PV Smoothing System. The system generates a PWM Signal and loops through the following steps indefinitely; reads Voltage, Current, and Battery Sensor input from Senor ADC, checks to see if battery temperature is above limit, performs PI calculation, and updates the PWM Signal.

ALTERNATE COURSES:

Battery temperature is too high: The system shuts off the PWM signal.



Static Class Diagram



Framework/Tool Kits

Texas Instrument's Code Composer Studio (CCS) and the embedded CCS compiler will be used to develop and debug the software for this project.

System Architecture