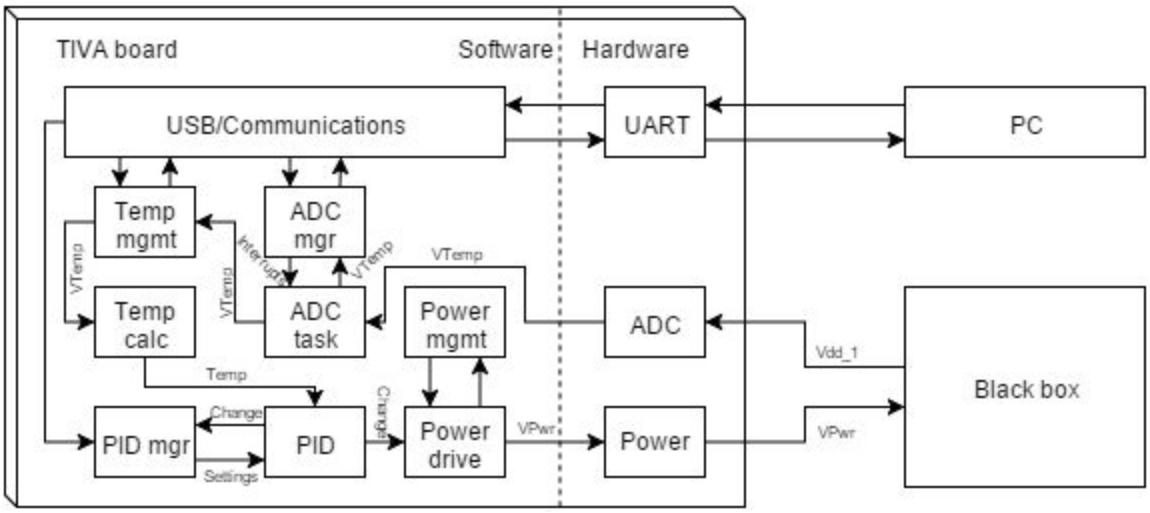
Assignment 3 PDF 1,2,8,9

1. Review the list of modules in your BBOC design. Update as necessary based on discussion and re-state your module list.

ADC, Temp. Calc, PID, USB, Power Drive

2. Review the diagram illustrating the interconnection of the modules in your BBOC. Update as necessary based on discussion and re-present.



8. Review how modules exchange information and update your documentation.

1. ADC and temp calc modules will exchange info through ADC_queue, the global queue used for storing the ADC input values that have been converted back to voltage values with the ADC module.
2. temp calc and PID module will exchange info through temp_queue, the global queue used to store the measured system temp values.
3. PID and USB modules will exchange input desired temperature info via the the global user_input_temp variable.
4. PID and Power Driver modules will exchange info through a global variable that holds a new PWM signal to drive the heater. The value will be calculated by PID module based on the difference between the measured and desired temp.
5. ADC and temp calc modules will feed their queue values and a time value to the user/PC via USB for data processing.

9. Review how operating data is collected, e.g. ADC measurement, temperature measurements, PID response, heater on-time, ... and how to send reports back to the managing PC and update your documentation.

The taskADC, tempCalc, and taskPID tasks will pass values to a terminal like PuTTY or Tera Term where the values can then be taken from the console window or a log file and put into excel, etc. Sending reports back may require another management method that awaits input from PuTTY or Tera Term if one of these can take console commands and can communicate these commands back to the host.