

Columbia University
Department of Electrical Engineering
EECS E4340. Laboratory #3A.
PDP-8 Execution Controls, Part I.
Due: March 31, 2004

You should expect that completing the remainder of the PDP-8 design is going to take you some time. Please do not wait until last minute. As always, please do not hesitate to come to me or the TA if you get stuck.

In this laboratory, you are to complete the execution controls for all of the PDP/8 instructions *except* for the IOT instructions (and the associated interface to the UART) which will be completed in Lab #4. You will need to complete the ASM charts for the execution cycles of these instructions (using the ones I handed out in class as a start). The trickiest part of this will be the implementation of the Group 1 and Group 2 microinstructions. Make sure your machine correctly implements the priority scheme as specified in the ISA.

Please turn in your VHDL, the ASM charts for your controller, your testbench, and detailed description of your testing including any relevant waveform plots.