

Lab 8: Full System Integration (Session II)

Date		Grade
Names		
		Lab session / lab room

You have to submit this report and the required codes via Moodle (<https://moodle-app2.let.ethz.ch/mod/assign/view.php?id=240200>).

Use a zip file or tarball that contains the report and the codes. Only one of the members of each group should submit. All member of the group will get the same grade.

The name of the submitted file should be *Lab8_part2_LastName1_LastName2.zip* (or *.tar*), where *LastName1* and *LastName2* are the family names of the members of the group.

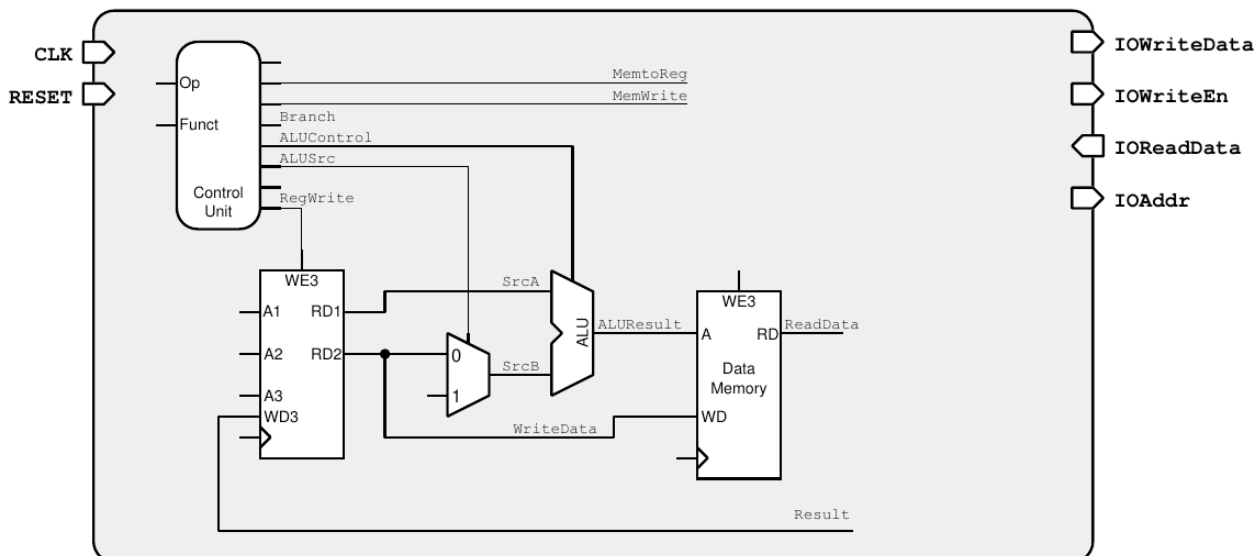
Part 1

Submit your code for the working crawling snake (Part II) via Moodle. Include explanations/comments in your code. Include all the necessary files to run your code on the simulator. They should be in a folder called *Part_2*.

If you have any comments about the exercise please include a textfile in your Tarball submission including: mistakes in the text, difficulty level of the exercise, anything that will help us improve it for the next time.

Part 2

Below is a part of the MIPS block diagram. Draw the necessary modifications for the memory mapped I/O on this block diagram. (We are only interested in the SW and LW instructions; the rest of the block diagram has been left out on purpose. *Hint: If your circuit works you already implemented this in the MIPS.v module.*)



Part 3

Using Figure 1 as a reference, what additional hardware/architectural changes are needed in the top module (*top.v* file) to implement Challenge 2? You can either draw the additional circuitry required or write in your own words here.