

Computerized control - homework 5

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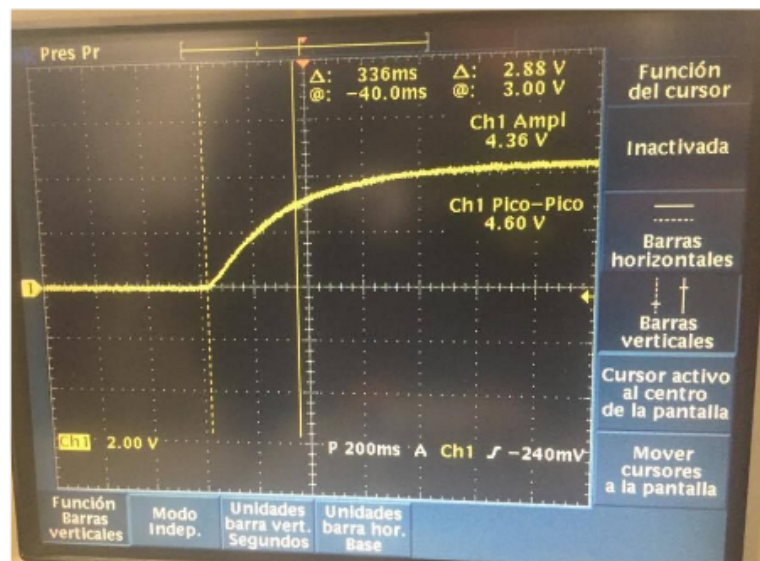
Due Friday 2018-04-20

Preliminary report on the project and plan for the work

Please prepare a written preliminary report about your work on the project. The report should contain

1. Design of the necessary analog circuits:

- a) Antialiasing filter (low pass Bessel filter). In order to find a reasonable value of the sampling period h , you can make use of the step response in the figure below (by previous students Pedro de la Torre, Jorge Ramirez, Jorge Barrutia, Miguel Rubio).



- b) Signal conditioner (motor driver) to convert a 0-5V signal from Arduino output channel to signal -5V - +5V for driving the dc motor in both directions.
- c) Signal conditioner to convert zero-mean signal from anti-aliasing filter to signal in range 0-5V for input to Arduino.

2. **A detailed plan of the work** needed to complete the project and finish the report. Break the work up in a number of suitable tasks and **provide for each task**

- a) A description
- b) Time required to complete the task
- c) Deadline to accomplish the task and scheduled times to work on the task.
- d) Responsible group member

You could for instance visualize the plan in a Gantt chart