

EE446/546 Hardware Project

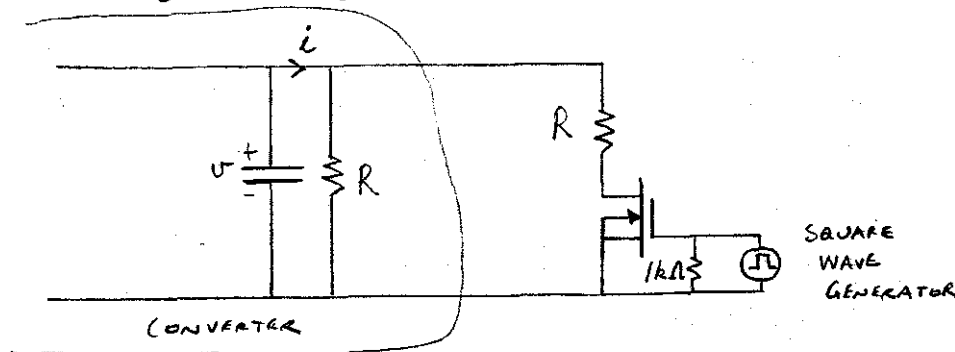
Power Electronic System Design II

The demonstration of group hardware projects

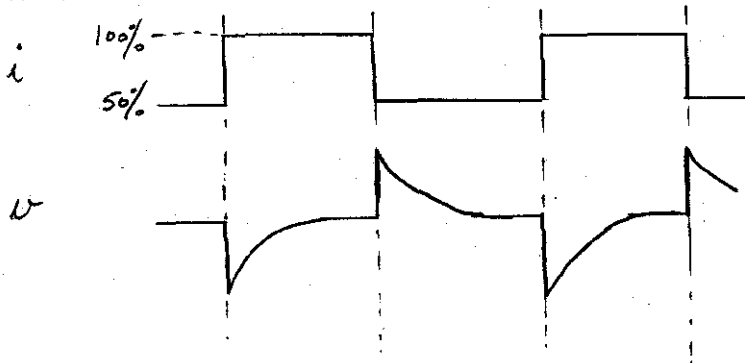
In your demonstration of your closed loop switching regulator you need to show:

- 1) proper operation of your regulator,
- 2) effective feedback loop design.

To demonstrate effectiveness of your feedback design each group needs to show output voltage response to step load changes with and without feedback. Step load changes are most easily performed using the following circuit:



For groups with negative output voltage polarities, use a P-channel power MOSFET. Choose R at a value to give half of full load current, so that the above circuit will effect load changes from 50% to 100% of full load current.



The writeup of the project is due at the beginning of your demonstration. The writeup need not be lengthy but it should contain at least the following:

- i) full circuit diagram
- ii) details of compensation design
- iii) P.E.C.S simulation

