

# EEE 202 CIRCUIT THEORY

## LAB 2

Design a circuit that generates the voltage waveform shown in the upper part of Figure 1 when an input step voltage is applied which is shown in the lower part of the figure. The design should be based on OPAMPs and RC circuits.

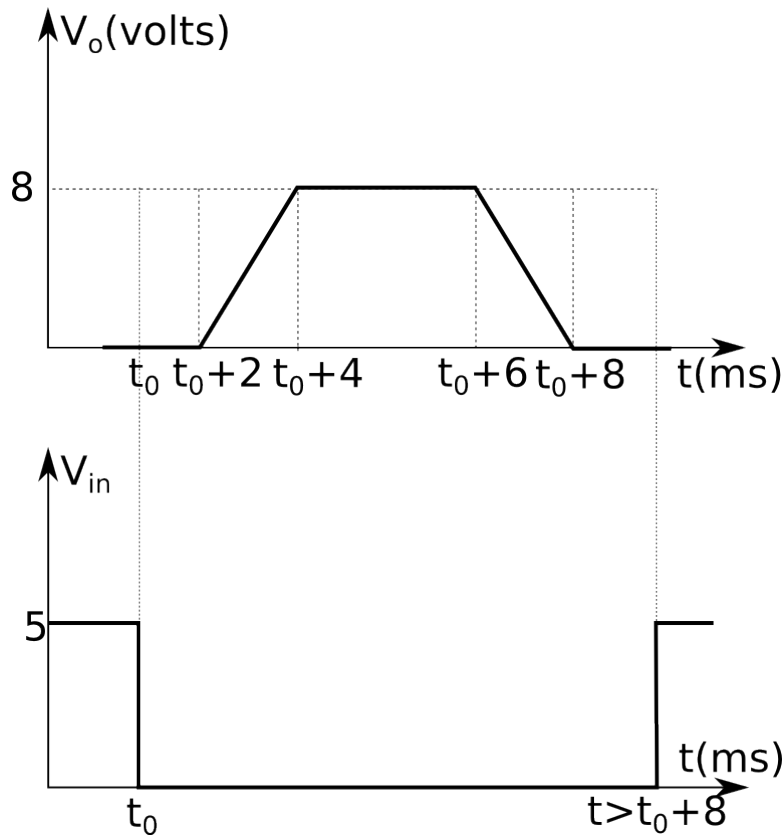


Figure 1: Desired output waveform(above) when the input signal given in the plot below is applied.

There are [LM324](#) ICs available in the lab.

### Preliminary Work

Show all your design steps and verify your circuit using SPICE.

### Experimental Work

Implement your circuit. Record the output and input waveforms on an oscilloscope for your report. (You may need your breadboard.)

### Available materials in the lab

Toroidal cores to design inductors or transformers: T25-10, T37-7, T38-8, T50-7 from Micrometals. Capacitors with standard values. Resistors with standard values. [LM324](#) (DIP package) Opamp. 5cm x 5cm PCB board pieces with no pattern (just copper on one side) to solder your components.