

Electronic Instrumentation

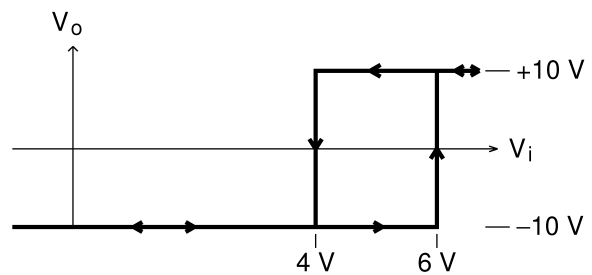
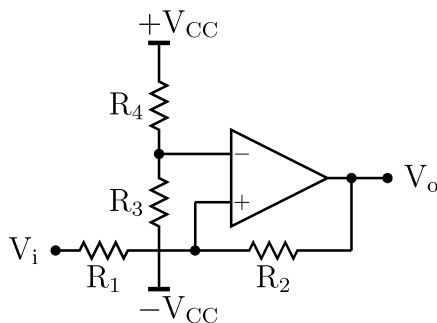
Problem sheet: OpAmps

2011/2012 module 2
P. Stallinga

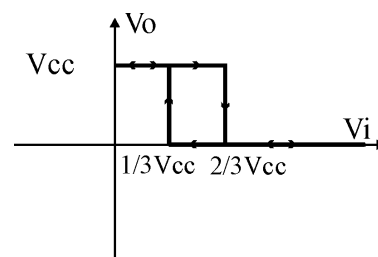
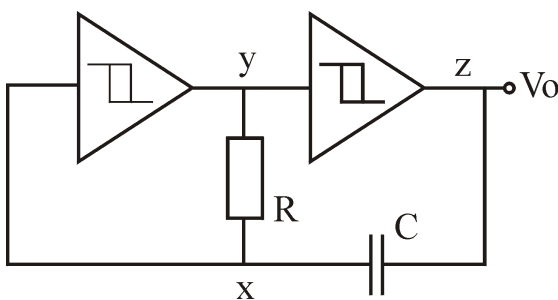


MIEET 3º ano

1: Design the circuit below so that it is bistable with the following relation between V_o and V_i :



2: Consider the unstable circuit ('oscillator') implemented with two Schmitt-triggers:



- Explain how the circuit works by sketching the voltages as a function of time in the points **x**, **y** and **z**.
- Determine the period of oscillation of the circuit.
- Give values for R and C to result in an oscillation frequency equal to $f = 10$ kHz.