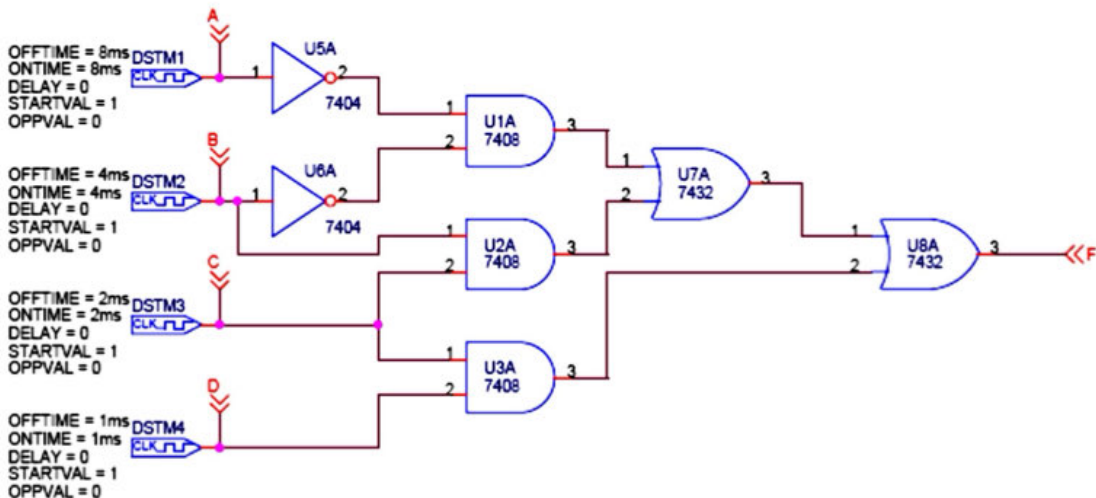


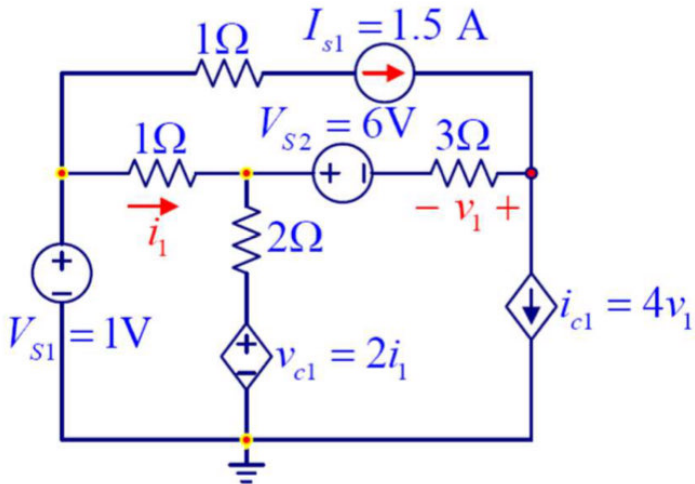
## Assignment 1 A combinational logic circuit simulation โดยใช้ PSpice

**Purpose:** Implement the function  $f(A,B,C,D) = A'B' + BC + CD$  using AND, OR, and NOT gates.

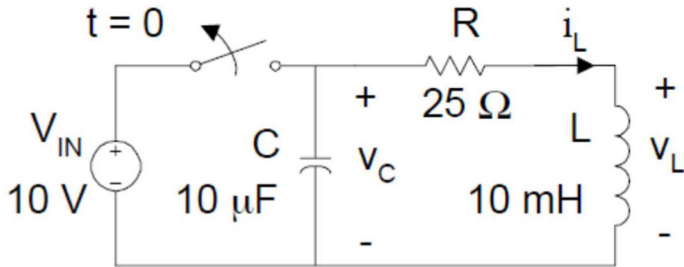
**Analysis:** In order to display the output for all 16 combinations of inputs, a TRANSIENT analysis will be performed. Since D is the LSB and has an ONTIME and OFFTIME of 1ms, the transient analysis should be performed for at least  $16(1\text{ms}) = 16\text{ms}$ .



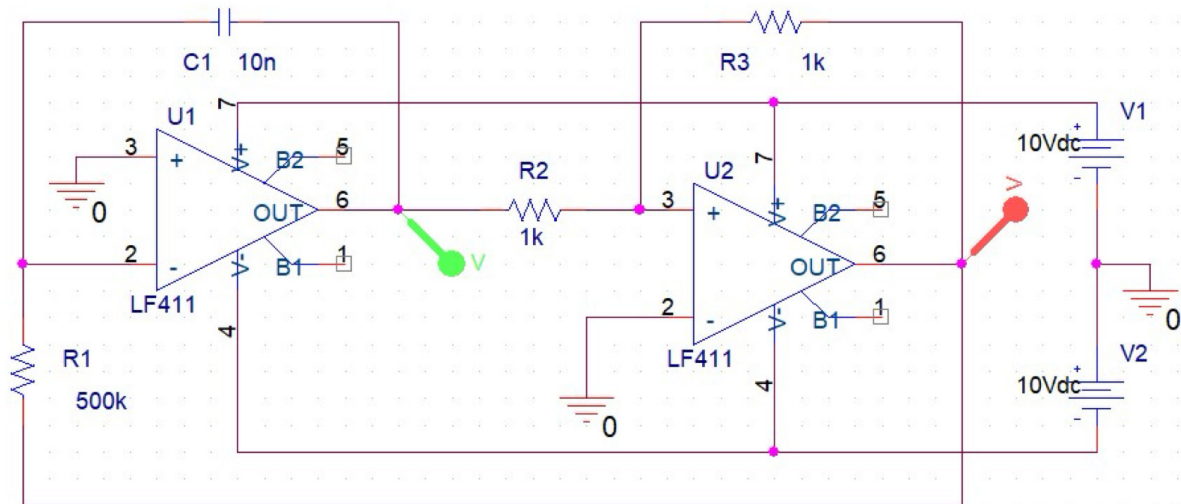
## Assignment 2 วงจรที่มี Dependent source



### Assignment 3 SIMULATING A TRANSIENT CIRCUIT



#### Assignment 4 Opamp oscillator



Show Vout of both opamp in Transient mode within 80mS.