

ECE 204L - COMBINATIONAL BUILDING BLOCKS - LAB 16 READ ONLY MEMORIES

WINTER 2004

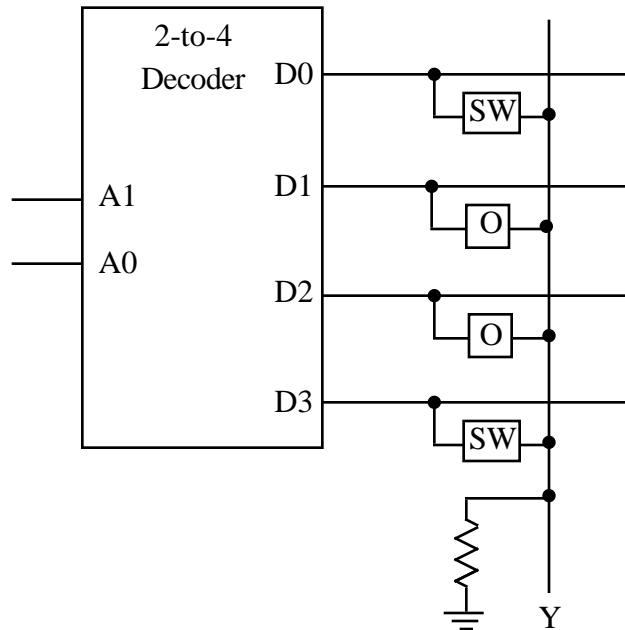
A.P. FELZER

OBJECTIVE

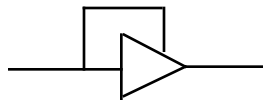
The objective of this lab is to build and test programmable read only memories.

LAB

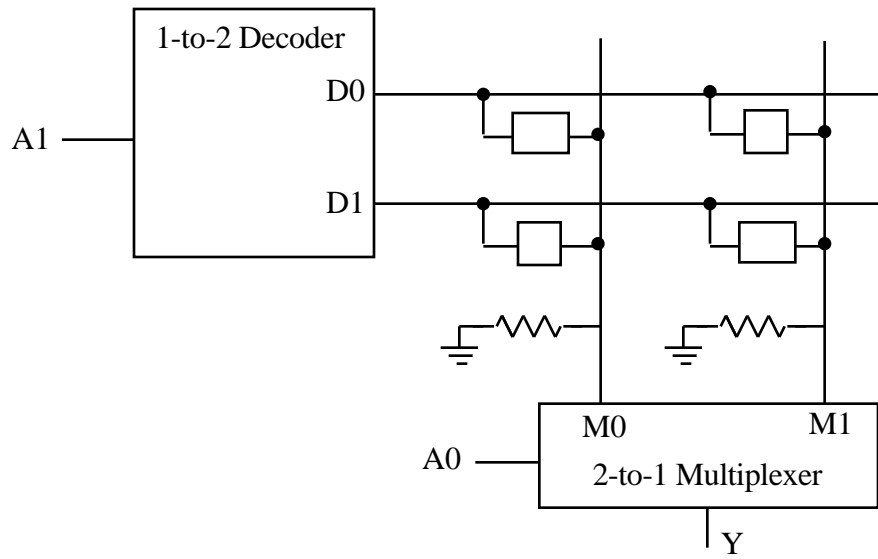
1. Given the following ROM where SW is for switch and O for open



where 0 is for open and SW for switch that is closed when its input is 1 and open when 0 made from 74126's as follows



- Describe the operation of the switch
 - Find the equation for Y
 - Draw the logic circuit with tristate buffers for the switches
 - Build and test your circuit. Document your test results
 - Verify that your results agree with your equation in part (b)
2. Given the following ROM circuit



- Design the ROM to have the same output Y as the ROM in Problem (1)
- Build and test your circuit. Document your test results.
- Verify that your results agree with those in Problem (1)