

**CAL POLY POMONA
ECE DEPT.
LAB # 3**

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ECE 2300L

Prelab

Design a BCD to seven-segment decoder that will accept a decimal digit in BCD and generate the appropriate outputs for the segments to display a decimal digit (0-9). Use a common anode display. Turn the seven segment OFF for non-BCD digits. Draw a logic circuit.

LAB

Implement the above circuit using a minimum number of gates. Demonstrate their operations using switches and LED, seven segment display (Select from Data book) etc. as needed.

POSTLAB

- 1. What will happen if a common cathode display is used? Comment on the interface between the decoder and the display.**
- 2. Draw Schematics of a common cathode and common anode displays.**
- 3. What is the difference between 7447 and 7448?**