AutoCAD Problem 7-1

Chapter 7: Electrical CAD

Circuit for a Home Alarm System

Create a schematic of the alarm circuit as shown below. The circuit will be used in a home alarm system for a house that has two doors, three windows, and a motion detector. Each of the doors, windows, and sensors is shown using an N.O. switch that, when closed, will set off the alarm and light a red lamp.

HOME ALARM SYSTEM FOR 123 MAIN STREET, ANYTOWN, USA

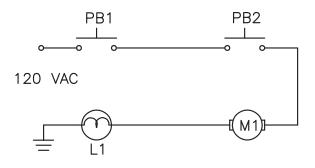
=12 VDC	, window 1 ,	WINDOW 2	window 3	DOOR 1	2 DOOR 2 (H ALARM
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AutoCAD Problem 7-2

Chapter 7: Electrical CAD

Safety Circuit for a Robotic Manufacturing System

You are working on the electrical circuit for a new robotic manufacturing system. You need to incorporate a safety circuit to reduce the risk to the machine operator. The safety circuit needs to have two hand switches. Both of these switches must be depressed simultaneously before the main motor and indicator light are activated. Create the circuit as shown below.



AutoCAD Problem 7-3

Chapter 7: Electrical CAD

Logic Diagram for a DC Voltage Regulator

Create a logic diagram for the series DC voltage regulator shown below. Use DesignCenter to insert the two resistors, a diode, and a transistor. Modify their sizes as needed using the PROPERTIES command.

