**Unit: Manual Motor Controls Job: 28**

**Title: Sequenced Forward and Reverse for 3 Phase Mtr. CLO# 1,2**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Station \_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives**

1. Student shall further understand a Time Delay control circuit.
2. Student shall enhance motor control design skills.
3. Upon completion, a student shall have a more complete knowledge base for creating proficient motor control circuits.

**Assessment**

Students shall demonstrate a comprehension of the objectives listed above by scoring a minimum of 75% on this shop job. Grading shall be based on the Manual Motor Controls rubric.

**Instructions**

Design a time delay motor control circuit that alternates between running “forward” then runs “reverse”. One pushbutton shall be a traditional “start”. When this button is pressed, the motor shall start and run “forward” (CCW), it shall run for 15 seconds then shut off. If the start button is pressed again, the motor shall start and run “reverse” (CW) for 15 seconds then shut off. If at any time the stop button is pressed, the motor (or sequence) shall stop. The green light shall indicate “forward”, the blue light shall indicate “reverse”, the red light shall indicate “stopped” and the yellow light shall indicate “overload”. Use the space on the opposite side of this page to design your circuit. Once complete, review your design with your instructor. After obtaining approval, you may wire your circuit. Ensure to label all wires with the appropriate wire numbers. Have your instructor review your wiring before energizing your circuit.



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