**Unit: Manual Motor Controls Job: 21**

**Title: Forward/Reverse using Selector Switch for Three Phase Mtr. CLO# 1,2**

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

**Objectives**

1. Student shall develop a further understanding of reversing a motor.
2. Student shall enhance motor circuit 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 forward/reverse motor control circuit using two momentary pushbuttons and a three-position selector switch. One pushbutton shall be a traditional “start” button, and the other a “stop” button. The selector switch shall determine if the motor is to rotate “forward” (CCW) or “reverse” (CW). If the motor is running and the selector switch is changed, the motor shall stop running. The operator shall have to press the “start” button to engage the motor in the newly selected direction. 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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