**Unit: Manual Motor Controls Job: 8**

**Title: Sealing/Unsealing with ESTOP Circuit CLO# 2**

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

**Objectives**

1. Identify the function of a latching mushroom head (ESTOP) pushbutton.
2. Classify input components that “break” the circuit versus input components that “make” the circuit.
3. Develop a foundation for creating a complete motor control circuit.

**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 sealing/unsealing circuit using two momentary pushbuttons. The circuit will also utilize a latching mushroom head pushbutton to act as an “ESTOP” as well. Whenever the circuit is “sealed”, the green light shall come on and the red light shall be off. When the circuit is “unsealed”, the green light shall be off and the red light shall be on. If the ESTOP is pressed, both lights shall be off. Use the space below to design your circuit. Once complete, review your design with you 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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Render the schematic you designed using a CAD type software package on a classroom PC. Once complete, post the schematic to your student network folder using filename MMC Job 08 – *username.ext*