**Unit: Manual Motor Controls Job: 12**

**Title: Stop/Start/Jog using Three Pushbuttons CLO# 2**

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

**Objectives**

1. Differentiate motor jogging techniques in a motor control circuit.
2. Demonstrate how a stop/start motor circuit can be converted to a jogging circuit using a third pushbutton.
3. Demonstrate circuit design and building skills.

**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 stop/start/jog motor control circuit using three momentary pushbuttons. One pushbutton shall be a traditional “start” button. When the start button is pressed, the motor shall start and continue to run even if the “start” button is no longer pressed. If the “stop” button is pressed, the motor shall stop. If the remaining pushbutton, a “jog” button, is pressed the motor shall only run for as long as the button is being held down. Once the “jog” button is released, the motor shall stop running. While the motor is running, the green light shall come on and the red light shall be off. When the motor is not running, the green light shall be off and the red light shall be on. Use the space on the opposite side of this page 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.

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 12 – *username.ext*

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