Title: **Two Switches, Two Luminaires** Hands On: 6

Course: Electrical Applications Unit: Electrical Shop CLO: 1, 5, 7

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Grade \_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives**

1. Student shall create an electrical circuit design consisting of two switches, and two luminaires.
2. Student shall apply the National Electrical Code articles during construction.
3. Student shall relate all Lock-Out and Tag-Out requirements to safety standards.

**Assessment**

Students shall demonstrate a comprehension of the objectives listed above by scoring a minimum of 75% on this Hands On. Grading shall be based on the Electrical Applications Shop Job Rubric.

**Materials**

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| --- | --- |
| Student Provided Materials | **Department Provided** |
| Electrical Cable | 4”x4”x1½” Metal Electrical Boxes |
| Switches | Cable Clamps |
| Lamp holders |  |

**Instructions**

Design a circuit that shall switch two luminaires from two separate switches. Power for the circuit shall enter at luminaire box 1. The switches shall connect through box 2. Use the space on the opposite side of this page to draw the design. Have the instructor review the design before wiring. Below is an example of a blueprint electrical schematic of the circuit.



|  |  |
| --- | --- |
| Instructor reviews wiring diagram. After approval, lock-out the station and begin wiring. | Initials \_\_\_\_\_\_\_\_ |
| After completing the wiring but **before** energizing the circuit, have the instructor check all wiring. | Initials \_\_\_\_\_\_\_\_ |
| After wiring check is complete and approved by the instructor, remove lock and test circuit **with** the instructor. | Initials \_\_\_\_\_\_\_\_ |
| Render your wiring diagram in a CAD based computer program. |  |

