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| **Electrical Applications** | Instructor Verified: |  |
| **Hands On Test #2** |  |  |
| **Switching Circuit w/ Two Lights** | Grade: |  |

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Materials:**

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| **Materials Provided by You** | **Materials Provided by the Dept.** |
| 1. Necessary Tools | 1. 4 x 4 Metal Boxes |
| 2. 14/2 w/Ground NM-B | 2. Romex Connectors |
| 3. 14/3 w/Ground NM-B |  |
| 4. Wire Nuts |  |
| 5. One Luminary Socket |  |
| 6. Single Pole, Single Throw Switch |  |
| 7. Two Duplex Receptacles |  |
| 8. Grounding Strap(s) |  |

**Objective:**

Given the necessary materials, the student will construct an electrical circuit to the specifications listed, as evidenced by scoring a minimum of 75% on this performance test.

**Description of the Circuit:**

Construct a circuit in which power is fed to a single pole switch box that shall control one luminary. From the luminary box, power shall be supplied to two separate duplex receptacles (non-switched), each in their own box. Use grounding straps where appropriate.

**Construct the circuit.**

|  |  |  |
| --- | --- | --- |
| Description | Pts | Score |
| Circuit wired correctly | 5 |  |
| 6” of free conductor from the front edge of the box | 5 |  |
| Wire nut connections secure. | 5 |  |
| Conductors affixed on device correctly | 5 |  |
| 1/4” cable sheath inside box. | 5 |  |
| All current carrying conductors insulation un-marred | 5 |  |
| Circuit works as described. | 20 |  |

**Instructor’s Notes:**

**Blueprint: (Devices installed in metal boxes, use type NM-B cable)**

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Hands On Test # 2