

**2014 Wyoming State FFA CDE
Agricultural Technology and Mechanical Systems
Electrical Systems – Wiring Skill**

You have received an internship with a hay and forage production company in Northeastern, WY. Your responsibilities include care and maintenance for the crops, farm facilities, and the repair of any worn equipment. As you are shutting down the work facilities for the evening, you find that the auto-shut off timer that controls the lights in the seed and chemical storage area has quit working. Your employer has requested that you replace the timer, but to leave it out of the electrical outlet box, so he can inspect your work before use.

Using the tools provided, install the new timer in the specified electrical outlet box

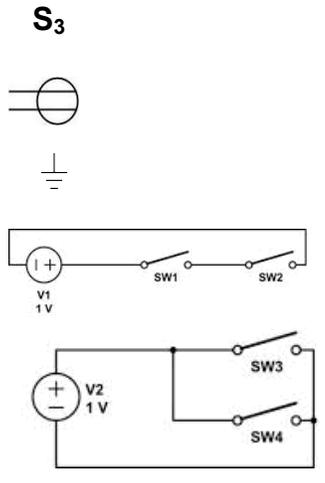
After your employer has determined you are competent in electrical work, you have been assigned to analyze the remaining electrical components of the breaker box for any potential hazards or improper wiring practices that may exist.

Use the following space to identify wiring problems (if any), which might exist. Identify how to fix any observed problems in the space provided. (Do not attempt to repair any of the identified problems).

	Existing Wiring Problems	Recommendation for Repair
1.	Exposed wires crossed between breakers	Uncross wires and reduce bare wires where only insulation is exposed
2.	Hot and ground wires are switched in 240V receptacle	Reverse wires to correct locations
3.	SPST Switch hot and neutral wires are reversed	Hot leads need to be connected to SPST switch with neutral wires connected with wiring terminal
4.		
5.		

Match the following electrical symbols with their correct term.

- 1. c
- 2. e
- 3. d
- 4. b
- 5. a



- a. Parallel Connection
- b. Series Connection
- c. 3-Way Switch
- d. Ground
- e. Duplex Receptacle

Criterion	Points Possible	Points Earned
Wiring skill	20	
Questions	8 (1 point each)	
Safety	2	