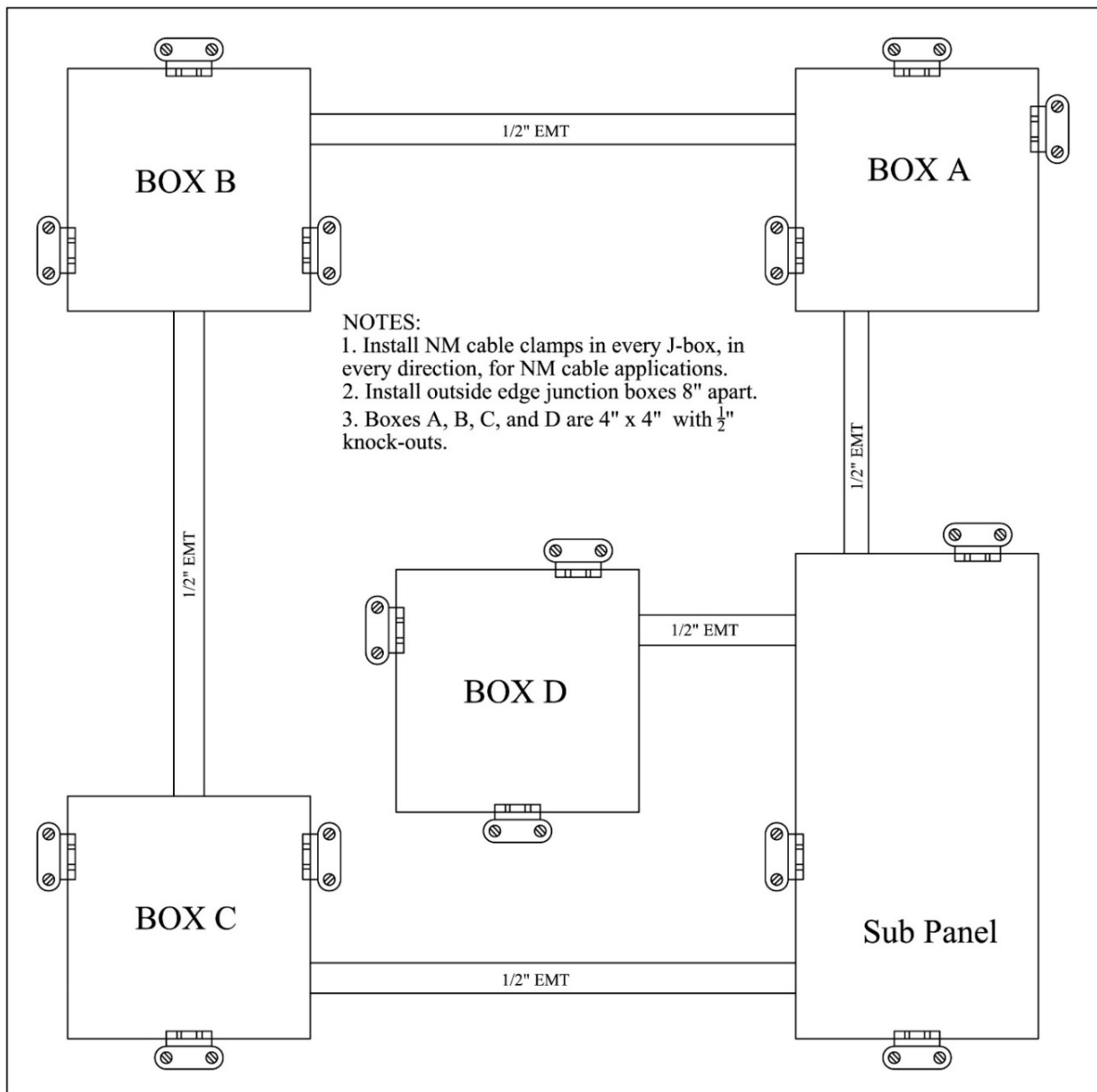


FFA State Finals: Ag. Mechanics Electrical Skills, 2024

You are required to wire two circuits controlled separately from the Sub Panel. One of the circuits is 15A, and the other circuit is 20A.

Specifications (see graphic below):

1. Wiring is to be done according to the NEC.
2. Local codes require grounding wiring to be included in all conduit circuits.
3. Include a short (24") power source cable (#10-3 NM cable) to the Sub Panel.
4. Box D includes a lamp holder, it is connected to the Sub Panel with a #14-2 NM cable (Romex).
5. Box A is to include a 3-way switch, it is connected to Box D with a #14-2 NM cable (Romex).
6. Box B includes a 3-way switch, it is connected to Box A with a #14-3 NM cable (Romex).
7. The lamp holder in Box D can be controlled by any of the switches from Box A or Box B.
8. Box C is to include a 20A, 240V receptacle, and it is connected to the Sub Panel with #12 THHN wires through the EMT.
9. No wires/cables between Box A and the Sub Panel.
10. No wires/cables between Box B and the Sub Panel.



Contestant No.
Name

**FFA Ag. Mechanics State
 Finals 2024
 Electrical Wiring
 Skills**

Score

Score Sheet

	Points Possible	Points Earned
General		
Safety and work habits	6	<input style="width: 100%; height: 20px;" type="text"/>
Sub Panel		
Correct source cable	4	<input style="width: 100%; height: 20px;" type="text"/>
6" free conductor	4	<input style="width: 100%; height: 20px;" type="text"/>
Correct breaker connections	4	<input style="width: 100%; height: 20px;" type="text"/>
Proper neutral & grounding connections	4	<input style="width: 100%; height: 20px;" type="text"/>
No excess copper/pinched insulator	4	<input style="width: 100%; height: 20px;" type="text"/>
Box A		
6" free conductor	4	<input style="width: 100%; height: 20px;" type="text"/>
Correct switch connections	4	<input style="width: 100%; height: 20px;" type="text"/>
Proper neutral & grounding connections	4	<input style="width: 100%; height: 20px;" type="text"/>
Correct input conductor? (size/type)	4	<input style="width: 100%; height: 20px;" type="text"/>
Box B		
6" free conductor	4	<input style="width: 100%; height: 20px;" type="text"/>
Correct switch connections	4	<input style="width: 100%; height: 20px;" type="text"/>
Proper neutral & grounding connections	4	<input style="width: 100%; height: 20px;" type="text"/>
Correct input conductor? (size/type)	4	<input style="width: 100%; height: 20px;" type="text"/>
Box C		
6" free conductor	4	<input style="width: 100%; height: 20px;" type="text"/>
Correct outlet connections	4	<input style="width: 100%; height: 20px;" type="text"/>
Proper grounding connections	4	<input style="width: 100%; height: 20px;" type="text"/>
Correct input conductor? (size/type)	4	<input style="width: 100%; height: 20px;" type="text"/>
Box D		
6" free conductor	4	<input style="width: 100%; height: 20px;" type="text"/>
Correct lamp holder connections	4	<input style="width: 100%; height: 20px;" type="text"/>
Proper neutral & grounding connections	4	<input style="width: 100%; height: 20px;" type="text"/>
Correct input conductor? (size/type)	4	<input style="width: 100%; height: 20px;" type="text"/>
Overall		
Snug wire nuts	5	<input style="width: 100%; height: 20px;" type="text"/>
Workmanship, wire color selection, loops, etc.	5	<input style="width: 100%; height: 20px;" type="text"/>
Totals	100	<input style="width: 100%; height: 20px;" type="text"/>