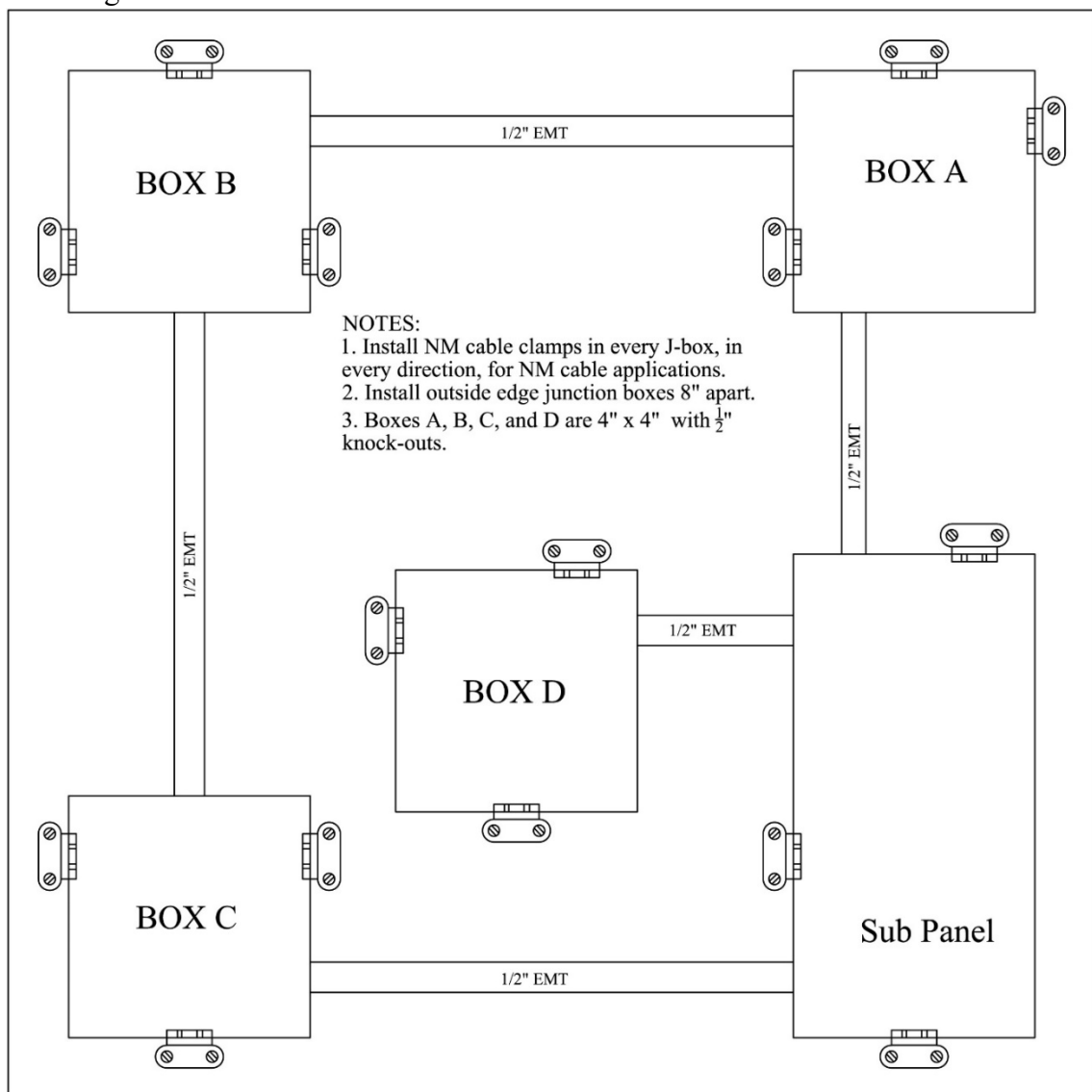


FFA State Finals: Ag. Mechanics Electrical Skills, 2025

You are required to wire one 15A circuit, controlled by one single-pole circuit breaker in the Sub Panel.

Specifications (see graphic below):

1. All wiring must comply with the National Electrical Code (NEC).
2. Local codes require grounding conductors in all conduit circuits.
3. A power source cable (#10-3 NM cable) must connect the Sub Panel.
4. Box A: Contains a 3-way switch and connects to the Sub Panel using Romex.
5. Box B: Contains a 4-way switch and connects to Box A using Romex.
6. Box C: Contains a 3-way switch and connects to Box B using Romex.
7. Box D: Contains a lamp holder and connects to Box C using Romex.
8. The lamp holder can be controlled by any of the switches.
9. No wiring connections between Box C and the Sub Panel or Box D and the Sub Panel.



Contestant No.
Name

**FFA Ag. Mechanics State
Finals 2025
Electrical Wiring
Skills**

Score

Score Sheet

Points Possible | Points Earned

General

Safety and work habits

6

--

Sub Panel

Correct source cable

4

--

Clamped down source cable

4

--

Correct breaker connections

4

--

Proper neutral & grounding connections

4

--

No excess copper/pinched insulator

4

--

Box A

6" free conductor

4

--

Correct switch connections

4

--

Proper neutral & grounding connections

4

--

Correct input conductor? (size/type)

4

--

Box B

6" free conductor

4

--

Correct switch connections

4

--

Proper neutral & grounding connections

4

--

Correct input conductor? (size/type)

4

--

Box C

6" free conductor

4

--

Correct light fixture connections

4

--

Proper neutral & grounding connections

4

--

Correct input conductor? (size/type)

4

--

Box D

6" free conductor

4

--

Correct switch connections

4

--

Proper neutral & grounding connections

4

--

Correct input conductor? (size/type)

4

--

Overall

Snug wire nuts

5

--

Workmanship, wire color selection, loops, etc.

5

--

Totals

100

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