

SkillsUSA

2015 Contest Projects

Telecommunications Cabling

Click the “Print this Section” button above to automatically print the specifications for this contest. Make sure your printer is turned on before pressing the button.

Score Sheet

2015 Cable Installing

Total possible points on this portion of the contest: 200

Contestant Number _____

Judges Signature _____

Directions:

1. You will have a total of 45 minutes to complete the Cable Installing exercise.
2. Secure the area.
3. Install two (2) Cat 6 cables from the work area outlet to the equipment rack modular patch panel.
4. Terminate to T568B on positions 1 & 2 of modular patch panel 1.
5. Label per TIA-EIA 606 Labeling Standards identifying cable #1 and #2.

Step	Possible Points	Description	Criteria	Judges Comments	Score	Test Pass/Fail
1	5	Secure the work area.	5 pts or zero pts			
2	10	Setup pull boxes & label cables and boxes.	No label - 5			
3	10	Pull cables and dress across ladder rack.	2 pts for pulling cable. Bend radius 2 pts Pulling tension 2 pts Technique 2 pts Secure cables 2 pts			
4	10	Fish conduit & install pull string.	10 pts or zero pts			
5	15	Pull cables through conduit with pull string.	5 pts for string 10 pts for cables			
6	10	Terminate cables per T568-B standard on modular panel 1, positions 1&2 and the wall outlet jacks.	10 pts			
7	10	Install faceplate. (If this is not done the cable will not be tested resulting in the loss of all points in Step 10.)	Labels 2 pts each (2) Face plate 2 pts (1) Jack 2 pts each (2)			
8	5	Dress & secure cables.	Judges discretion			
9	10	Clean up work area.	Judges discretion			
10	15	Judge tests both cables. Neither cable works = 0 points One cable works = 5 points Both cables work = 10 points Extra points awarded to top 5 cable readings with 2 good cables.	Test Result Ranking			Test Results
	100			Point Subtotal		
				Multiplier x 2		
				Total Points		

Step 10 Test Results Ranking

- 1st 15 points
2nd 14 points
3rd 13 points
4th 12 points
5th 11 points

Test Result: _____

Place: _____

Points Awarded _____

Professionalism: Okay _____

Safety: Okay _____

Deduction _____ (Up to 5 points)

Deduction _____ (Up to 5 points)

Score Sheet

2015 Cable Termination: Twenty-five Pair on 110 Block

Total possible points on this portion of the contest: 150

Contestant Number _____

Judges Signature _____

Directions:

1. You will have a total of 30 minutes to complete the Cable Termination exercise.
2. Determine the amount of cable remaining in the cable box in feet.
Number of feet of cable = _____
3. Terminate a 25 pair cable on Row two (2) of the 110 block labeled 102. (Route the 25 pair cable from the top down and dress cable in from the right side.)
4. Run a Cat 6, 4 pair cable from Row two (2) beginning with Pair 5 on the 110 block labeled 101 to the wall outlet.
5. Use a C4 clip on 110 block 101 and a C5 clip on 110 block 102 to cross connect pair 1 of the 4 pair cable to pair 10 of the 25 pair cable.

Step	Possible Points	Description	Judges Comments	Score	Test Pass/Fail
1	10	Determining remaining cable in box			
2	20	Proper color code of twenty-five pair			
3	20	Proper termination of 110 block			
4	10	Dress cable			
5	10	Proper cross-connect routing			
6	10	Proper installation of C5 & C4 clips			
7	10	Proper amount of slack at work area			
8	10	Clean up			
	100		Point Subtotal		
			Multiplier x 1.5		
			Point Total		

Professionalism: Okay _____

Deduction _____ (Up to 5 points)

Safety: Okay _____

Deduction _____ (Up to 5 points)

Score Sheet

2015 Copper Cable Construction

Total possible points on this portion of the contest: **150**

Contestant Number _____

Judge's Signature _____

Directions:

- You will have 90 minutes to construct 6 cables.
- Make one 568A patch cable, two 568B patch cables, one basic link 568B cable with female jacks, a crossover cable, and a coax cable.
- Each cable should be at least 36 inches long when complete. (Cut 3.5 feet)
- Label each cable with your contestant number and type cable
Patch – 568A 2-Patch 568B Basic Link – B Crossover – X Coax – C
- Connect the two 568B patch cables to the basic link cable to make a complete channel.
- When finished present your cables to the judge for testing.

T568A Patch Cable	Points	End 1	End 2	Subtotal	
Cable is properly labeled	3 Total				
Insulation crimped	2 each end				
Pairs fully inserted	2 each end				
Nylon reinforcement cord trimmed	2 each end				Cable Total
Wire map passed T568A	15				

T568B Patch Cable	Points	End 1	End 2	Subtotal	
Cable is properly labeled	3 Total				
Insulation crimped	2 each end				
Pairs fully inserted	2 each end				
Nylon reinforcement cord trimmed	2 each end				Cable Total
Wire map passed T568B	15				

T568B Patch Cable	Points	End 1	End 2	Subtotal	
Cable is properly labeled	3 Total				
Insulation crimped	2 each end				
Pairs fully inserted	2 each end				
Nylon reinforcement cord trimmed	2 each end				Cable Total
Wire map passed T568B	15				

T568B Basic Link	Points	End 1	End 2	Subtotal	
Cable is properly labeled	3 Total				
Insulation flush terminated	2 each end				
Pairs fully inserted	2 each end				
Nylon reinforcement cord trimmed	2 each end				Cable Total
Wire map passed T568B	15				

Crossover Cable	Points	End 1	End 2	Subtotal	
Cable is properly labeled	3 total				
Insulation crimped	2 each end				
Pairs fully inserted	2 each end				
Nylon reinforcement cord trimmed	2 each end				Cable Total
Wire map passed	15				

2015 Copper Cable Construction

Contestant Number _____

Terminate Coax with F Connectors		End 1	End 2	Subtotal	
Cable is properly labeled	3 total				
Insulation crimped	2 each end				
Conductor proper length	2 each end				
Outer shield trimmed properly	2 each end				Cable Total
Test cable (VOM)	15				

Penalties	Number of additional plugs used	Points
Deduct 10 points for each additional plug.		
Deduct 10 points for contestant not wearing eye protection.		
	Total Deduction	

Gross Copper Cable Points (180 points max) _____

Subtract Penalty Points _____

Add 10 bonus points if the Channel Test works _____

Add 10 points if the other three cables all work _____

Net Copper Cable Construction Points _____

Total Copper Cable Construction Points = .75 x Net Points _____

Professionalism: Okay _____

Deduction _____ (Up to 5 points)

Safety: Okay _____

Deduction _____ (Up to 5 points)

Score Sheet

2015 Copper Cable Troubleshooting

Total possible points on this portion of the contest: 100

Contestant Number _____

Judges Signature _____

Directions:

1. You will have 40 minutes to complete cable troubleshooting.
2. Read the question and inspect the item at each station.
3. Put the answer to each station question on this answer sheet.
4. If an explanation is required, write it on this answer sheet. (If additional space is needed write it on the back and number it.)

Station	Answer	Explanation	Judges Comments	Score
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
			Total	

Professionalism: Okay _____

Deduction _____ (Up to 5 points)

Safety: Okay _____

Deduction _____ (Up to 5 points)

Score Sheet

2015 Fiber Cable Troubleshooting

Total possible points on this portion of the contest: 50

Contestant Number _____

Judges Signature _____

Directions:

1. You will have 40 minutes to complete cable troubleshooting.
2. Read the question and inspect the item at each station.
3. Put the answer to each station question on this answer sheet.
4. If an explanation is required, write it on this answer sheet. (If additional space is needed write it on the back and number it.)
5. 2.5 points for each item

STATION	ANSWER	Explanation	Judges Comments	Score
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
			Total	

Professionalism: Okay _____

Deduction _____ (Up to 5 points)

Safety: Okay _____

Deduction _____ (Up to 5 points)

Score Sheet

2015 Telecommunications Cabling – Professionalism

Total possible points on this portion of the contest: 50

Contestant Number _____

Judges Signature _____

Item Evaluated	Possible Points	Score
Orientation (Attendance & Promptness)	5	
Competition Day Promptness	5	
Safety	5	
Attitude	5	
Tools and Equipment	30	
Total Score	50	

Score Sheet

2015 Technical Support

Total possible points on this portion of the contest: **100**.

Contestant Number _____

Judges Signature _____

Directions:

In the Technical Support part of the contest, you will be judged on speaking skills, using a walkie-talkie or IP phone, and solving a customer problem while experiencing simulated stress and distractions.

Scenario:

You've just moved to testing an Ethernet data link that has been reported inoperative. The customer didn't give you much information just the room and ports that are having a problem. The employee at the station is complaining they can't retrieve files from the network.

You are working with your coworker Jake who is in the telecommunications closet providing support on the remote end. When you pick up the walkie-talkie or IP phone to begin working with Jake you will be operating a half-duplex communications tool **and need to ask Jake if he is there.**

Time Limit: 8 Minutes

Legend: O = Outstanding (10 pts.) E = Excellent (7 pts.) S = Satisfactory (5pts.) US = Unsatisfactory (0 pts)

Steps	Possible Points	Description	Judge's Comments	O	E	S	US	Score
A.		Competitor Skills And Ability						
1.	10	Demonstrates appropriate knowledge of network infrastructure, troubleshooting technique/skill, through logical decision and critical thinking (Visual, rationale, etc.).						
2.	10	Clearly identified problem.						
3.	10	Used equipment appropriately.						
4.	10	Managed time effectively/completed tasks on time.						
B.		Performance Presentation						
1.	10	Immediately involved co-worker in work process (no isolation).						
2.	10	Provided <i>continual</i> feed back to co-worker during performance/testing						
3.	10	Demonstrated safety principles during performance/testing under stress.						
4.	10	Demonstrated control of emotions when confronted with stress.						
5.	10	Displayed natural mannerisms when confronted with stress.						
6.	10	Demonstrated poise and positive communications with co-worker.						
	100	Total Possible Points		Total Points				

Judge's Comments

Professionalism: Okay _____ Deduction _____ (Up to 5 points)

Safety: Okay _____ Deduction _____ (Up to 5 points)