

KFE4Skills Competition Spec – ELECTRICAL INSTALLATION L2+

Note: For general competition rules and guidance see: <https://www.kentfurthereducation.org/skills-competitions-1>

Industry Name	Electrical Installation L2	
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	Section	Criteria Guidance	Confirmed Spec Criteria
1	Entry Criteria	Entrants must be in education and/or employment with training, at one of the KFE college organisations (EKC Group, MidKent College and North Kent College (including Hadlow College), and/or have completed or be undertaking a relevant Level 2 or 3 or above programme within the last 12 months.	
2	Entrant Numbers	Standard entrant number per college organisation is 2 students for most industry rounds where more than 2 college organisations are participating and 3 per organisation where only 2 colleges are participating.	<ul style="list-style-type: none"> Each college organisation (not campus) may register up to (6) students. Confirmed max number of students in total showcase: 6 <p>This skills competition has been designed to challenge level 2 students. This is has been designed to test that the candidate can complete an Electrical Installation that meets industry standards. Testing hand skills, underpinning knowledge and time management. This will including initial verification. This competition will allow the contestants to show case their individual abilities.</p>
3	Competition Prep	This section describes preparation needed for this competition.	<p>Preparatory Brief</p> <p>All competitors should be prepared to carry out installation of containment, 1st and 2nd fix. They are to demonstrate their knowledge of the Inspect and Testing. Note Diagram at Appendix 2.</p> <p>There are no pre-competition submissions required. Materials lists and tools lists (compiled by the competitors).</p>

4	Core Competency	Summary of relevant education level industry competency.	<ul style="list-style-type: none"> ○ Accurate measuring and marking out of work area from plans. ○ Construction of containment, trunking and conduit. ○ Installation of wiring systems. ○ Second fixing of electrical components. ○ Initial verification (inspection and testing). 																
5	Duration	This is the time that the actual competition activity will take.	4 hours																
6	The Skills Competition Task Details	This section describes the skills competition task to be undertaken in detail.	<p>Competitors will be given a plan of the required work on the day.</p> <p>This will be used by the competitors to enable all accessories and containments to be fitted.</p> <p>They will then go on to wire and second fix the tasks.</p> <p>The final section will be initial verification up to the point of making the system live.</p> <p>See Appendix 2 diagram for further task information.</p>																
7	Marking & Assessment Requirements	This section provides the marking and assessment approach.	<p>Each competition module will be assessed and marked independently of any other competition activity, using objective and judgement criteria or a combination of both during each task.</p> <table border="1" data-bbox="869 1059 1697 1358"> <thead> <tr> <th>Task Skill</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>Health and Safety</td> <td>/10</td> </tr> <tr> <td>Accuracy of accessory placement</td> <td>/20</td> </tr> <tr> <td>Standards and terminations</td> <td>/20</td> </tr> <tr> <td>Understanding of design</td> <td>/20</td> </tr> <tr> <td>Testing circuits in order and manner</td> <td>/20</td> </tr> <tr> <td>Validity of test results</td> <td>/10</td> </tr> <tr> <td>Total</td> <td>100</td> </tr> </tbody> </table>	Task Skill	Score	Health and Safety	/10	Accuracy of accessory placement	/20	Standards and terminations	/20	Understanding of design	/20	Testing circuits in order and manner	/20	Validity of test results	/10	Total	100
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			<p>For all objective criteria, the following measurement will be used:</p> <p>For all judgement criteria, the following marking scale will be used/ or a variation:</p> <ul style="list-style-type: none"> ○ 0 = Does not meet industry standard ○ 1 = Meets minimum industry standard ○ 2 = Meets industry standard ○ 3 = Exceeds industry standard <p>Each competition module will be assessed and marked independently of any other competition activity. Once marks have been awarded by each of the judges, they will be averaged to obtain the final mark. The panel of judges has been selected from a range of industry, college and training provider representatives. The judges’ decisions will be moderated and quality assured.</p>
8	Judges & Marking	This competition benefits from college and external judges.	<p>The KFE competition will use marking guides best suited to the industry event. An example scoring sheet is below.</p> <p>Judges will be selected from the expert KFE staff drawn from various colleges. Panels will normally number three to five judges and in some cases may include an external judge from the industry sector or an awarding body. Judges’ decisions are final in all instances, although scoring will be open and transparent.</p> <p>JUDGE MARKING SHEET – See Appendix 1.</p>
9	Student Support Required	Detail if student helpers are required and how many per student undertaking the task.	<ul style="list-style-type: none"> ○ NA
10	Resources	Detail any PPE or dress code requirements.	All competitors will be required to wear their college uniform (if appropriate). Protective footwear should be worn at all times in workshop areas.

			<p>Each competitor will require a 4 foot x 4 foot board and the materials listed on the attached sheet (Appendix 1).</p> <p>This is to be provided by the host college venue alongside all hand tools that will be required (no personal hand tools to be used to ensure a level field).</p>
11	Health & Safety	Confirmation that relevant health and safety checks and assurances are undertaken or are to be by each college locally where necessary.	See relevant risk assessments and additional competition round specific rules and guidance requirements.
12	Risk Assessment	Confirmation that relevant risk assessments have been or are to be undertaken locally where necessary.	<ul style="list-style-type: none"> ○ The host college must have completed a relevant risk assessment and filed this centrally for KFE4Skills. ○ Participating visiting colleges should complete risk assessments relevant to their event participation.
13	Competition Spec additional rules and requirements	Detail of additional specific rules and requirements for this competition spec.	<p>The following is in addition to the overall KFE4Skills General Rules & Guidance. A completed registration is a confirmation that a competitor has agreed to the following:</p> <p>All electrical equipment must be PAT tested and labelled before using at the competition and all the supporting equipment must be fit for purpose.</p>

JUDGE MARKING SHEET

Competitor	College	Health and safety	Accuracy of accessory placement	Standards of terminations	Understanding of design	Testing of circuits in order and manner	Validity of test results	Total Score

Comments:

Use this space for any specific comments noting the competitors as appropriate.

Appendix 2

Amount	Size	Description	
1 length	20mm	Pvc light gauge conduit	
2	15mm	250mm copper pipe	
4	15mm	Pipe clips	
1	20mm	Light gauge bending spring	
1	20mm	Tee box pvc	
1	20mm	Stop end besa box	
3	25mm	Pvc Marshall Tufflex back box. Round K/O	
2		2 way MK switch modular	
1		Intermediate switch modular	
1		Key switch	
2		Single gang yoke MK	
20	20mm	Spacer bar saddles	
1		2 gang yoke MK	
1		1 gang face plate	
1		2 gang face plate	
2		Batten lamp holder	
10M	1.5mm	Brown	
10M	1.5mm	Green/yellow	
2M	1.5mm	Blue	
1	5 way	Consumer metal clad, complete with Main switch, 32A RCBO, 6A RCBO	
32	15mm 8s	Wood screws	
Tools			
Appropriate hand tools			
Battery drill		20mm Hole-saw, various bits to suit.	
Multi-function tester		Or appropriate single function testers	

Appendix 2 Continued

1 20mm Light gauge plastic conduit, used with appropriate adapters and connectors.

2 15mm copper pipe, which PVC conduit must pass over obstruction with appropriate clearance.

3 50x50 metal trunking with pre-manufactured 90° bend used, all sections of the trunking is to be earthed.

7 3 double socket BS1363 outlets to be coupled directly to trunking, sockets are to be equal distance from each other.

8, This is a baton holder light fitting. To be operated via two way and intermediate switching. **10**, **11** and **12**

9, This is a baton holder light fitting simulating an emergency fitting. To be operated by the key switch on position **10**, the operation of this key switch should have no effect on any other fitting.

13 This is a switch fused spur that should be connected as part of the ring final circuit.

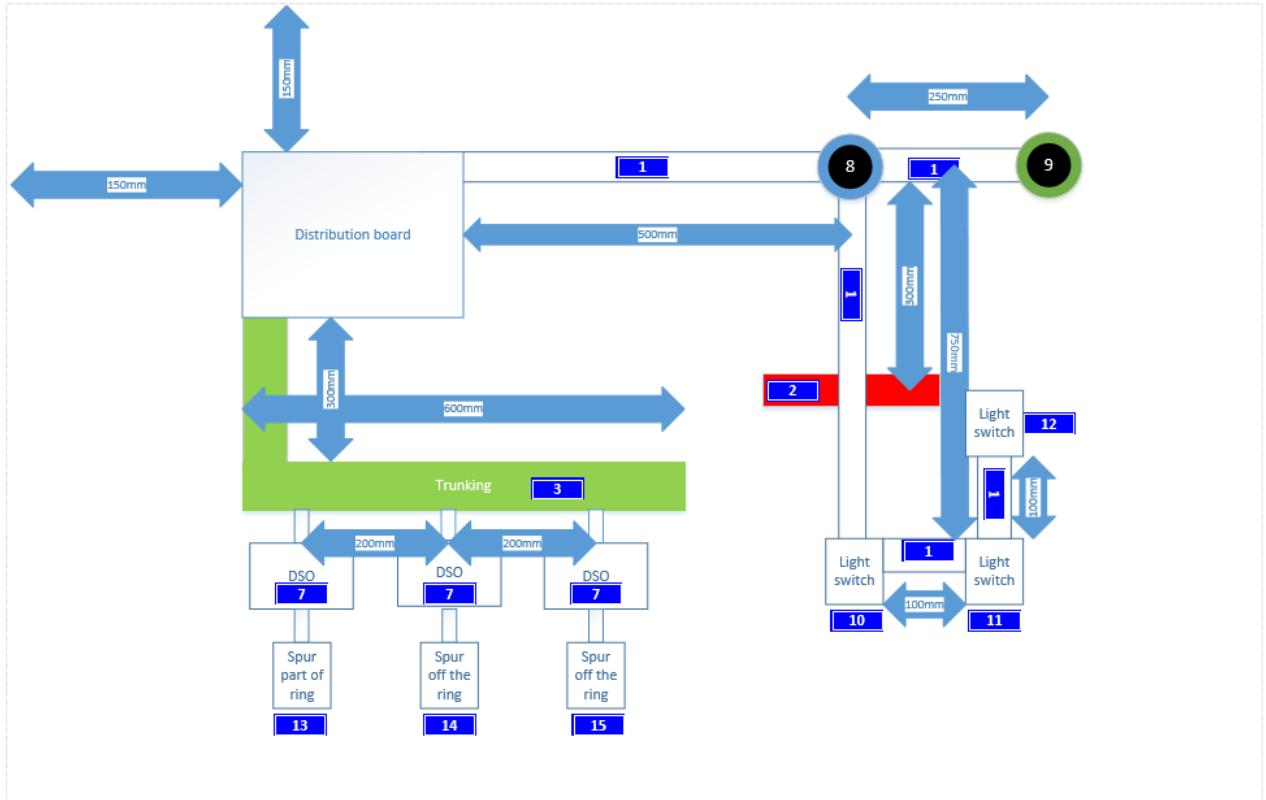
14 This is a switch fused spur that should be spurred off the ring final circuit via an appropriate method.

15 This is a switch fused spur that should be spurred off the ring final circuit via a different appropriate method.

All circuits are to be dead tested.

Diagram

Appendix 2



KFE SKILLS SHOWCASE - #KFE4Skills 2023

