

## Competitor Feedback Form 2

Skill No.	16
Criterion ID	Industrial Electronics
Competition day	

Competitor No  Competitor Name  Date

Competition  Heat/venue

Criterion ID	Criterion Description	Max Marks	Total averaged mark awarded
A (1.5Hours)	Assembly and Build project	20	
B (1.0Hours)	Design and Measurements)	20	
C (1.5Hours)	Electronic Fundamentals (Digital and Analogue)	40	
D (1.5Hours)	'C' Programming	20	
	<b>Total Marks</b>	<b>100</b>	

Comments:

### Candidates Note:

There has been a change to the distribution of marks and time from previous competitions.

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Date

## Marking Schedule

**Form 1 Ob.**

Skill No.	16
Criterion ID	(A) - Assembly Project
Competition day	

Competitor No	<input type="text"/>	Competitor Name	<input type="text"/>	Date	May-2012
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Competition	Industrial Electronics	Heat/venue	Regional Final
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Aspect ID	Aspect of Criterion – Description	Max Mark	Requirement or Nominal Size	Result or Actual Value	Mark Awarded
<b>A1.0</b>	<b>Component Assembly</b>				
A1:1	Nuts and screws	0.4	As in Fig 1 and secure		
A1:2	Push button SW1 and Buzzer	0.2	Level		
A1:3	IC Sockets	0.4	Level and orientation		
A1:4	Component Placement and lead forming: LEDs, Capacitors, transistors and ICs	9.0	Height from board surface, level and orientation		
		<b>10.00</b>			

<b>Judge 1</b>	<b>Initials</b>	<b>Judge 2</b>	<b>Initials</b>	<b>Judge 3</b>	<b>Initials</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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UK Skills Moderator	<input type="text"/>
Date	<input type="text"/>

**Awarded Mark is the Max Mark minus any specified deductions for difference between 'requirement and result'**

## Marking Schedule Form 1 Ob.

Skill No.	16
Criterion ID	(A)2.0- Assembly Project
Competition day	

Competitor No	<input type="text"/>	Competitor Name	<input type="text"/>	Date	May 2012
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Competition	Industrial Electronics	Heat/venue	Regional Final
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Aspect ID	Aspect of Criterion – Description	Max Mark	Requirement or Nominal Size	Result or Actual Value	Mark Awarded
<b>A2.0</b>	<b>Soldering Quality</b>				
A2:1	Resistors & Capacitors	1.0	IPC Standard		
A2:2	Led's	5.0	IPC Standard		
A2:3	IC1 & IC2	1.0	IPC Standard		
A2:4	Transistor, Buzzer, switch & battery	1.0	IPC Standard		
		<b>8</b>			

<b>Judge 1</b>	<b>Initials</b>	<b>Judge 2</b>	<b>Initials</b>	<b>Judge 3</b>	<b>Initials</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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## Marking Schedule Form 1 Ob.

Skill No.	16
Criterion ID	(A)4.0- Assembly Project
Competition day	

Competitor No	<input type="text"/>	Competitor Name	<input type="text"/>	May 2012
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Competition	Industrial Electronics	Heat/venue	Regional Final
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Aspect ID	Aspect of Criterion – Description	Max Mark	Requirement or Nominal Size	Result or Actual Value	Mark Awarded
<b>A3.0</b>	<b>Testing</b>				
A3:1	Correct supply voltage and power off time	0.20	Quality of connection		
A3:2	Operate switch and 37 LED's work	1.50	Correct operation		
A3:3	Spinning sound	0.10	Correct operation		
A3:4	Winning sound	0.10	Correct operation		
A3:5	LED's spins between games	0.10	Correct operation		
		<b>2.00</b>			

<b>Judge 1</b>	<b>Initials</b>	<b>Judge 2</b>	<b>Initials</b>	<b>Judge 3</b>	<b>Initials</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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## Marking Schedule Form 1 Ob.

Skill No.	16
Criterion ID	(B) Design and Measurement
Competition day	

Competitor No	<input type="text"/>	Competitor Name	<input type="text"/>	Date	May 2012
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Competition	Industrial Electronics	Heat/venue	Regional Final
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Aspect ID	Aspect of Criterion – Description	Max Mark	Requirement or Nominal Size	Result or Actual Value	Mark Awarded
B1.0	Measurement				
B1.1	Bulb resistance and Units	0.50	Value+ ohms		
B1:2	Schematic diagram and instruments	a) 0.50 b) 0.50 c) 0.50	Symbols, voltage and symbols		
B1:3	Measurements	a) 0.50 b) 0.50 c) 0.50 d) 1.50	voltage Current Calculate resistance Comment: Temperature coefficient of resistance		
		5.00			

Judge 1	Initials	Judge 2	Initials	Judge 3	Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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Date

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## Marking Schedule Form 1 Ob.

Skill No.	16
Criterion ID	(B) Design and Measurement
Competition day	

Competitor No	<input type="text"/>	Competitor Name	<input type="text"/>	Date	May 2011
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Competition	Industrial Electronics	Heat/venue	Regional Final
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Aspect ID	Aspect of Criterion – Description	Max Mark	Requirement or Nominal Size	Result or Actual Value	Mark Awarded
<b>B2.0</b>	<b>Measurement</b>				
B2:1	Calculate frequency	1.0	Calculation		
B2:2	Connect circuit and monitor output	1.0	Frequency		
B2:3	Measure pulse, calculate and record duty cycle	0.5	Pulse width		
B2.4	Record voltage	0.5	Voltage		
B2.5	Repeat for other resistor combinations	1.0	Repeat above		
B2.6	Demonstrate functionality	1.0	Functionality		
		<b>5.0</b>			

<b>Judge 1</b>	<b>Initials</b>	<b>Judge 2</b>	<b>Initials</b>	<b>Judge 3</b>	<b>Initials</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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Date

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**Marking Schedule  
Form 1 Ob.**

<b>Skill No.</b>	<b>16</b>
<b>Criterion ID</b>	<b>(B) Design and Measurement</b>
<b>Competition day</b>	

<b>Competitor No</b>		<b>Competitor Name</b>		<b>Date</b>	<b>May 2011</b>
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<b>Competition</b>	<b>Industrial Electronics</b>	<b>Heat/venue</b>	<b>Regional Final</b>
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Aspect ID	Aspect of Criterion – Description	Max Mark	Requirement or Nominal Size	Result or Actual Value	Mark Awarded
<b>B3.0</b>	<b>Measurement and design</b>				
B3:1	Show schematic	1.0	Schematic Dia.		
B3:2	Show calculation for gain	1.0	Calculation dB		
B3:3	Build circuit	1.0	Build quality		
B3:4	Graph the input voltage	1.0	Graph		
B3:5	Show functional circuit	1.0	Functionality		
		<b>5.00</b>			

<b>Judge 1</b>	<b>Initials</b>	<b>Judge 2</b>	<b>Initials</b>	<b>Judge 3</b>	<b>Initials</b>

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Date

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## Marking Schedule



Skill No.  
Criterion ID

16
(C) Electronic Fundamentals ( Analogue and Digital

Competition  
day

Date **May 2012**

Form 1 Ob.

Competitor No

Competitor Name

Competition **Industrial Electronics**

Heat/venue

**Regional Final**

Aspect ID	Aspect of Criterion – Description	Max Mark
<b>C</b>	<b>Analogue Fundamentals</b>	
C1.0	Formula Electrical Current	0.5
C1.1	Electric Current	0.5
C1.2	Electrical Resistance	0.5
C1.3	Circuit current	0.5
C1.4	Total Circuit resistance	1.0
C1.5	Zener Diode	0.5
C1.6	Fraction to Decimal calculation	0.5
		<b>4.00</b>

Requirement or Nominal Size	Result or Actual Value	Mark Awarded
(a)		
(c)		
(c)		
(a)		
20 Ohms		
(c)		
(b)		

Judge 1	Initials

Judge 2	Initials

Judge 3	Initials

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UK Skills Moderator

Date

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## Marking Schedule

### Form 1 Ob.

Skill No.	16
Criterion ID	(C) Electronic Fundamentals
Competition day	

Competitor No	<input type="text"/>	Competitor Name	<input type="text"/>	Date	May 2012
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Competition	Industrial Electronics	Heat/venue	Regional Final
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Aspect ID	Aspect of Criterion – Description	Max Mark	Requirement or Nominal Size	Result or Actual Value	Mark Awarded
<b>C</b>	<b>Analogue Fundamentals</b>				
C1.7	Transformer	0.5	(a)		
C1.8	Reactance	1.0	(c)		
C1.9	P- P Voltage	1.0	(d)		
C1.10	Co- axial	0.5	(b)		
C1.11	Bandwidth	0.5	(c)		
C1.12	Diode Resistance	1.0	(c)		
C1.13	Multivibrator	0.5	(b)		
		<b>5.00</b>			

<b>Judge 1</b>	<b>Initials</b>	<b>Judge 2</b>	<b>Initials</b>	<b>Judge 3</b>	<b>Initials</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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## Marking Schedule

### Form 1 Ob.

Skill No.	16
Criterion ID	(C) Electronic Fundamentals
Competition day	

Competitor No	<input type="text"/>	Competitor Name	<input type="text"/>	Date	May 2012
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Competition	Industrial Electronics	Heat/venue	Regional Final
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Aspect ID	Aspect of Criterion – Description	Max Mark	Requirement or Nominal Size	Result or Actual Value	Mark Awarded
<b>C</b>	<b>Analogue Fundamentals</b>				
C1.14	Transistor	1.0	(a)		
C1.15	Differential Amplifier	1.0	(c)		
C1.16	Wien Oscillator	1.0	(a)		
C1.17	555 Timer	1.0	(b)		
C1.18	Tuned Collector	2.0	(b)		
C1.19	By Pass Capacitor	1.0	(d)		
C1.20	Gain Calculation	2.0	266.67		
		<b>9.00</b>			

<b>Judge 1</b>	<b>Initials</b>	<b>Judge 2</b>	<b>Initials</b>	<b>Judge 3</b>	<b>Initials</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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## Marking Schedule

### Form 1 Ob.

Skill No.	16
Criterion ID	(C) Electronic Fundamentals
Competition day	

Competitor No	<input type="text"/>	Competitor Name	<input type="text"/>	Date	May 2012
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Competition	Industrial Electronics	Heat/venue	Regional Final
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Aspect ID	Aspect of Criterion – Description	Max Mark	Requirement or Nominal Size	Result or Actual Value	Mark Awarded
<b>C</b>	<b>Digital Fundamentals</b>				
C2.0	555 Timer	2.0	1.1 mSec		
C2.1	Truth table (3), SOC Expression (2)	5.0	$F = \bar{A}BC + ABC$		
C2.2	Binary to Decimal	1.0	(a)		
C2.3	Decimal to Hex	1.0	6739		
C2.4	Multiplexer	1.0	(b)		
C2.5	Logic Gate	2.0	(d)		
C2.6	2's Complement	2.0	(d)		
C2.7	32K Memory	2.0	(d)		
C2.8	DAC	3.0	2.1875		
C2.9	ADC	2.0	1101100.1		
C2.10	EPROM	1.0	(a)		
		<b>22.00</b>			

<b>Judge 1</b>	<b>Initials</b>
<input type="text"/>	<input type="text"/>

<b>Judge 2</b>	<b>Initials</b>
<input type="text"/>	<input type="text"/>

<b>Judge 3</b>	<b>Initials</b>
<input type="text"/>	<input type="text"/>

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## Marking Schedule

### Form 1 Ob.

Skill No.	16
Criterion ID	(C) Electronic Fundamentals
Competition day	

Competitor No  Competitor Name  Date

Competition  Heat/venue

Aspect ID	Aspect of Criterion – Description	Max Mark	Requirement or Nominal Size	Result or Actual Value	Mark Awarded
C5.0	Digital Fundamentals ( 4 Bit Counter)				
C5.1	Design and build	4.0			
C5.2	Test	4.0			
C5.3	Working	2.0			

10.00

<b>Judge 1</b>	<b>Initials</b>	<b>Judge 2</b>	<b>Initials</b>	<b>Judge 3</b>	<b>Initials</b>

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## Marking Schedule Form 1 Ob.

Skill No.	16
Criterion ID	(D) 'C' Programming
Competition day	

Competitor No  Competitor Name  Date

Competition  Heat/venue

Aspect ID	Aspect of Criterion – Description	Max Mark	Requirement or Nominal Size	Result or Actual Value	Mark Awarded
D1	'C' - Programming				
D1.1	Re-type programme using 'C' language	2	'C' structure		
D1.2	Compile programme	2	demonstrate		
D1.3	Correct faults 1 to 10 and document	10	'C' language		
D1.4	Demonstrate working programme on computer screen	1	demonstrate		



			15		

Judge 1	Initials

Judge 2	Initials

Judge 3	Initials

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Date

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