

Score Tabulation Instructions

Note: You do NOT need these instructions if you are using the electronic version of the engineering presentation score sheet.

The formulas are already set up for you within Excel

Contents	Tables 1-3
	Score Tabulation Sheet (Table 4)

ENGINEERING PRESENTATION JUDGING INSTRUCTIONS

Please use these instructions if you are using hard copies of the presentation score sheets

You will need:	Judges' Score Sheet
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Step 1: Tabulate Category Scores (for each category)

Add the points within each category to get the **Category Raw Total** (document in first column of Table 4)

Use the **Category Raw Total** and the **Raw Points Possible** (Table 1) to look up the **Raw Category %** (Table 2)

Use the **Raw Category %** and the **Category Weight** (Table 1) to look up the **Category Score** (Table 3)

Record **Category Score** (Table 4)

Step 2: Calculate Final Score (Table 4)

Total Score = Sum of the Category Scores

Final Score = Sum + Discretionary Points - Deduction Points

Printing Instructions:

Instructions (pg. 1)	8.5 x 11 Single Sided
Table 1 & 4 (pg. 2)	8.5 x 11 Single Sided (Both tables fit on one page)
Tables 2 & 3 (pg. 3-6)	1 of each table, each will be 1: 11 x 17 Double Sided

Engineering Presentation - Ranger/Explorer

Table 1: Category Scoring Info

Category	Raw Points Possible	Category Weight
Safety	20	10%
Team Presentation	60	25%
Theme/Tasks	16	10%
Overall Design and Workmanship	20	10%
Build vs. buy, new vs. used	16	20%
System Design	124	25%
Total	256	100%

Table 4: Recording the Category Score and Tabulating the Final Score

Category	Raw Score	Category Score
Safety		Tabulate using tables and judges' scores
Team Presentation		
Theme/Tasks		
Overall Design and Workmanship		
Build vs. buy, new vs. used		
System Design		
TOTAL SCORE		Add Category Scores
Discretionary Points		Enter Discretionary Points from score sheet
Deductions		Enter Deductions from score sheet
Final Score		Add Discretionary points and subtract deductions to arrive at the Final Score

Engineering Presentation - Ranger/Explorer

Table 2: Finding the Raw Category %

Category Raw Total (from judge score sheet)	Raw Points Possible (from Table 1)						
	4	8	12	16	20	60	124
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.25	0.13	0.08	0.06	0.05	0.02	0.01
2	0.50	0.25	0.17	0.13	0.10	0.03	0.02
3	0.75	0.38	0.25	0.19	0.15	0.05	0.02
4	1.00	0.50	0.33	0.25	0.20	0.07	0.03
5 -		0.63	0.42	0.31	0.25	0.08	0.04
6 -		0.75	0.50	0.38	0.30	0.10	0.05
7 -		0.88	0.58	0.44	0.35	0.12	0.06
8 -		1.00	0.67	0.50	0.40	0.13	0.06
9 -	-		0.75	0.56	0.45	0.15	0.07
10 -	-	-	0.83	0.63	0.50	0.17	0.08
11 -	-	-	0.92	0.69	0.55	0.18	0.09
12 -	-	-	1.00	0.75	0.60	0.20	0.10
13 -	-	-		0.81	0.65	0.22	0.10
14 -	-	-		0.88	0.70	0.23	0.11
15 -	-	-		0.94	0.75	0.25	0.12
16 -	-	-		1.00	0.80	0.27	0.13
17 -	-	-	-		0.85	0.28	0.14
18 -	-	-	-		0.90	0.30	0.15
19 -	-	-	-		0.95	0.32	0.15
20 -	-	-	-		1.00	0.33	0.16
21 -	-	-	-	-		0.35	0.17
22 -	-	-	-	-		0.37	0.18
23 -	-	-	-	-		0.38	0.19
24 -	-	-	-	-		0.40	0.19
25 -	-	-	-	-		0.42	0.20
26 -	-	-	-	-		0.43	0.21
27 -	-	-	-	-		0.45	0.22
28 -	-	-	-	-		0.47	0.23
29 -	-	-	-	-		0.48	0.23
30 -	-	-	-	-		0.50	0.24
31 -	-	-	-	-		0.52	0.25
32 -	-	-	-	-		0.53	0.26
33 -	-	-	-	-		0.55	0.27
34 -	-	-	-	-		0.57	0.27
35 -	-	-	-	-		0.58	0.28
36 -	-	-	-	-		0.60	0.29
37 -	-	-	-	-		0.62	0.30
38 -	-	-	-	-		0.63	0.31
39 -	-	-	-	-		0.65	0.31
40 -	-	-	-	-		0.67	0.32
41 -	-	-	-	-		0.68	0.33
42 -	-	-	-	-		0.70	0.34
43 -	-	-	-	-		0.72	0.35
44 -	-	-	-	-		0.73	0.35
45 -	-	-	-	-		0.75	0.36
46 -	-	-	-	-		0.77	0.37
47 -	-	-	-	-		0.78	0.38
48 -	-	-	-	-		0.80	0.39
49 -	-	-	-	-		0.82	0.40
50 -	-	-	-	-		0.83	0.40
51 -	-	-	-	-		0.85	0.41
52 -	-	-	-	-		0.87	0.42
53 -	-	-	-	-		0.88	0.43
54 -	-	-	-	-		0.90	0.44
55 -	-	-	-	-		0.92	0.44
56 -	-	-	-	-		0.93	0.45
57 -	-	-	-	-		0.95	0.46
58 -	-	-	-	-		0.97	0.47
59 -	-	-	-	-		0.98	0.48
60 -	-	-	-	-		1.00	0.48
61 -	-	-	-	-	-		0.49
62 -	-	-	-	-	-		0.50
63 -	-	-	-	-	-		0.51
64 -	-	-	-	-	-		0.52
65 -	-	-	-	-	-		0.52

Engineering Presentation - Ranger/Explorer							
Table 2: Finding the Raw Category %							
Category Raw Total (from judge score sheet)	Raw Points Possible (from Table 1)						
	4	8	12	16	20	60	124
66	-	-	-	-	-	-	0.53
67	-	-	-	-	-	-	0.54
68	-	-	-	-	-	-	0.55
69	-	-	-	-	-	-	0.56
70	-	-	-	-	-	-	0.56
71	-	-	-	-	-	-	0.57
72	-	-	-	-	-	-	0.58
73	-	-	-	-	-	-	0.59
74	-	-	-	-	-	-	0.60
75	-	-	-	-	-	-	0.60
76	-	-	-	-	-	-	0.61
77	-	-	-	-	-	-	0.62
78	-	-	-	-	-	-	0.63
79	-	-	-	-	-	-	0.64
80	-	-	-	-	-	-	0.65
81	-	-	-	-	-	-	0.65
82	-	-	-	-	-	-	0.66
83	-	-	-	-	-	-	0.67
84	-	-	-	-	-	-	0.68
85	-	-	-	-	-	-	0.69
86	-	-	-	-	-	-	0.69
87	-	-	-	-	-	-	0.70
88	-	-	-	-	-	-	0.71
89	-	-	-	-	-	-	0.72
90	-	-	-	-	-	-	0.73
91	-	-	-	-	-	-	0.73
92	-	-	-	-	-	-	0.74
93	-	-	-	-	-	-	0.75
94	-	-	-	-	-	-	0.76
95	-	-	-	-	-	-	0.77
96	-	-	-	-	-	-	0.77
97	-	-	-	-	-	-	0.78
98	-	-	-	-	-	-	0.79
99	-	-	-	-	-	-	0.80
100	-	-	-	-	-	-	0.81
101	-	-	-	-	-	-	0.81
102	-	-	-	-	-	-	0.82
103	-	-	-	-	-	-	0.83
104	-	-	-	-	-	-	0.84
105	-	-	-	-	-	-	0.85
106	-	-	-	-	-	-	0.85
107	-	-	-	-	-	-	0.86
108	-	-	-	-	-	-	0.87
109	-	-	-	-	-	-	0.88
110	-	-	-	-	-	-	0.89
111	-	-	-	-	-	-	0.90
112	-	-	-	-	-	-	0.90
113	-	-	-	-	-	-	0.91
114	-	-	-	-	-	-	0.92
115	-	-	-	-	-	-	0.93
116	-	-	-	-	-	-	0.94
117	-	-	-	-	-	-	0.94
118	-	-	-	-	-	-	0.95
119	-	-	-	-	-	-	0.96
120	-	-	-	-	-	-	0.97
121	-	-	-	-	-	-	0.98
122	-	-	-	-	-	-	0.98
123	-	-	-	-	-	-	0.99
124	-	-	-	-	-	-	1.00

Engineering Presentation - Ranger/Explorer

Table 3: Finding the Category Score

Raw Category % (from table 2)	Category Weight (from table 1)			
	5%	10%	20%	30%
0.01	0	0	0	0
0.02	0	0	0	1
0.03	0	0	1	1
0.04	0	0	1	1
0.05	0	1	1	2
0.06	0	1	1	2
0.07	0	1	1	2
0.08	0	1	2	2
0.09	0	1	2	3
0.10	1	1	2	3
0.11	1	1	2	3
0.12	1	1	2	4
0.13	1	1	3	4
0.14	1	1	3	4
0.15	1	2	3	5
0.16	1	2	3	5
0.17	1	2	3	5
0.18	1	2	4	5
0.19	1	2	4	6
0.20	1	2	4	6
0.21	1	2	4	6
0.22	1	2	4	7
0.23	1	2	5	7
0.24	1	2	5	7
0.25	1	3	5	8
0.26	1	3	5	8
0.27	1	3	5	8
0.28	1	3	6	8
0.29	1	3	6	9
0.30	2	3	6	9
0.31	2	3	6	9
0.32	2	3	6	10
0.33	2	3	7	10
0.34	2	3	7	10
0.35	2	4	7	11
0.36	2	4	7	11
0.37	2	4	7	11
0.38	2	4	8	11
0.39	2	4	8	12
0.40	2	4	8	12
0.41	2	4	8	12
0.42	2	4	8	13
0.43	2	4	9	13
0.44	2	4	9	13
0.45	2	5	9	14
0.46	2	5	9	14
0.47	2	5	9	14
0.48	2	5	10	14
0.49	2	5	10	15
0.50	3	5	10	15
0.51	3	5	10	15
0.52	3	5	10	16
0.53	3	5	11	16

Engineering Presentation - Ranger/Explorer

Table 3: Finding the Category Score

Raw Category % (from table 2)	Category Weight (from table 1)			
	5%	10%	20%	30%
0.54	3	5	11	16
0.55	3	6	11	17
0.56	3	6	11	17
0.57	3	6	11	17
0.58	3	6	12	17
0.59	3	6	12	18
0.60	3	6	12	18
0.61	3	6	12	18
0.62	3	6	12	19
0.63	3	6	13	19
0.64	3	6	13	19
0.65	3	7	13	20
0.66	3	7	13	20
0.67	3	7	13	20
0.68	3	7	14	20
0.69	3	7	14	21
0.70	4	7	14	21
0.71	4	7	14	21
0.72	4	7	14	22
0.73	4	7	15	22
0.74	4	7	15	22
0.75	4	8	15	23
0.76	4	8	15	23
0.77	4	8	15	23
0.78	4	8	16	23
0.79	4	8	16	24
0.80	4	8	16	24
0.81	4	8	16	24
0.82	4	8	16	25
0.83	4	8	17	25
0.84	4	8	17	25
0.85	4	9	17	26
0.86	4	9	17	26
0.87	4	9	17	26
0.88	4	9	18	26
0.89	4	9	18	27
0.90	5	9	18	27
0.91	5	9	18	27
0.92	5	9	18	28
0.93	5	9	19	28
0.94	5	9	19	28
0.95	5	10	19	29
0.96	5	10	19	29
0.97	5	10	19	29
0.98	5	10	20	29
0.99	5	10	20	30
1.00	5	10	20	30