

## Scoring Explained – Field Score



| Team Code | Field A | Field B | Field C | Normalized A | Normalized B | Normalized C | Removing Lowest Field Score | Total Field Score |
|-----------|---------|---------|---------|--------------|--------------|--------------|-----------------------------|-------------------|
| T1        | 2000    |         |         |              |              |              |                             |                   |
| T2        |         | 100     |         |              |              |              |                             |                   |
| T3        |         |         | 50      |              |              |              |                             |                   |

Teams may participate on the same field during different runs of the tournament. In this example, for the first run of the competition, the team T1 had the Field A, while T2 the Field B and T3 the Field C. This is because there are 3 different fields on the venue running simultaneously.

The score above may be seen after the first run of the competition.

At the end of the tournament, all teams will have a run on every field of the competition.

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|-----------|---------|---------|---------|--------------|--------------|--------------|-----------------------------|-------------------|
| T1        | 2000    | 150     | 100     | 1            | 0.75         | 0.6667       |                             |                   |
| T2        | 1000    | 100     | 150     | 0.5          | 0.5          | 1            |                             |                   |
| T3        | 500     | 200     | 50      | 0.25         | 1            | 0.3333       |                             |                   |

Once all the teams participate in a field, the score for that field will be normalized. This means  $(\text{Field score}) / (\text{Field score of the best team})$ . Therefore, the maximum score possible per field is 1.

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| T1        | 2000    | 150     | 100     | 1            | 0.75         | 0.6667       | 1.75                        | 0.875             |
| T2        | 1000    | 100     | 150     | 0.5          | 0.5          | 1            | 1.5                         | 0.75              |
| T3        | 500     | 200     | 50      | 0.25         | 1            | 0.3333       | 1.33                        | 0.6667            |

When removing the lowest field score, the normalized value will be chosen. This is because the normalized value is the one that will be considered when calculating the Total Field Score.

Note that for team T3, the lowest normalized score is Field A even though the Field C score is the lowest individual value.

The total field score is calculated as the mean of the addition of all field scores (removing the lowest field score). For this example, there are 3 fields. If we remove the lowest score, it means the mean will be calculated dividing the final score by 2.

# Scoring Explained – Rubrics



| Team Code | TDP | Video | Poster | Normalized TDP | Normalized Video | Normalized Poster | Normalized Rubrics Score |
|-----------|-----|-------|--------|----------------|------------------|-------------------|--------------------------|
| T1        | 22  | 16    | 18     | 0.2157         | 0.6667           | 1                 | 0.46276                  |
| T2        | 102 | 8     | 12     | 1              | 0.3334           | 0.6667            | 0.80002                  |
| T3        | 51  | 24    | 6      | 0.5            | 1                | 0.3334            | 0.56668                  |

Each document has its own rubric for evaluation. Regardless of the maximum score possible on each rubric, the scores will be normalized, allowing each document to have a maximum score of 1.

The normalized rubrics score is calculated as  $(0.6) \times (\text{Normalized TDP}) + (0.2) \times (\text{Normalized Video Score}) + (0.2) \times (\text{Normalized Poster})$ .

## Scoring Explained – Technical Challenge



| Team Code | Technical Challenge | Normalized Technical Challenge Score |
|-----------|---------------------|--------------------------------------|
| T1        | 1200                | 1                                    |
| T2        | 840                 | 0.7                                  |
| T3        | 575                 | 0.4792                               |

The number of mini-tasks as well as the scoring for the technical challenge will be shared on-site after the scoring runs have ended. The scoring mechanism will be based on the number of mini-tasks, time assigned for the challenge and tasks difficulty. The end score will be a single number, where the maximum possible score will be determined based on the Technical Challenge presented.

## Scoring Explained – Final Score



| Team Code | Total Field Score | Normalized Rubrics Score | Normalized Technical Challenge Score | Total Score     | Total Score (%) |
|-----------|-------------------|--------------------------|--------------------------------------|-----------------|-----------------|
| T1        | 0.875             | 0.46276                  | 1                                    | <b>0.817552</b> | <b>81.76%</b>   |
| T2        | 0.75              | 0.80002                  | 0.7                                  | <b>0.750004</b> | <b>75.00%</b>   |
| T3        | 0.6667            | 0.56668                  | 0.4792                               | <b>0.609196</b> | <b>60.92%</b>   |

The total score is calculated as  $(0.6) \times (\text{Total Field Score}) + (0.2) \times (\text{Normalized Rubrics Score}) + (0.2) \times (\text{Normalized Technical Challenge Score})$ .