

## Methods of competition

Different methods have been considered for ongoing RoboCup competitions. Among these methods, according to the experiences and assumptions of IRANOPEN tournament, the following methods are presented as suggested methods.

### 1) Individual Matches (Swiss League) - Super Team Matches (Big Field)

In this way, like the RoboCup, individual competitions are organized in the form of a Swiss league and the super-team competitions are held separately. It should be noted that the Big Field Championship grouping based on Seeding (based on TDP and Video submitted teams) is fixed and will not change during the competition.

Disadvantages	Advantages
<b>Need to hold at least 7 rounds to achieve a fair ranking.</b>	<b>It's easy to hold.</b>
<b>Competitions are solitary and cannot create a friendly atmosphere between the teams</b>	<b>The team's motivation will maintain till to the end</b>
<b>Big field's competition is irrelevant to individual competitions and awards.</b>	<b>just and fair.</b>
<b>Big Field is worthless.</b>	<b>Individual competitions is more excitement.</b>
<b>Knowledge sharing between teams is unreasonable.</b>	<b>Rating is independent to chance.</b>

#### Awards and How to Choose:

- 1) Rank 1 to 3 for the first three teams in the Individual Division based on the Swiss League
- 2) The best technical team - based on a technical interview
- 3) The best robot design - based on technical interview and referee judgment
- 4) Best Poster - Based on the judgment of the posters
- 5) Best Technical Presentation - Based on The technical judgment
- 6) First Super Team Rank - Based on Big Field results

## 2) Combined tournament

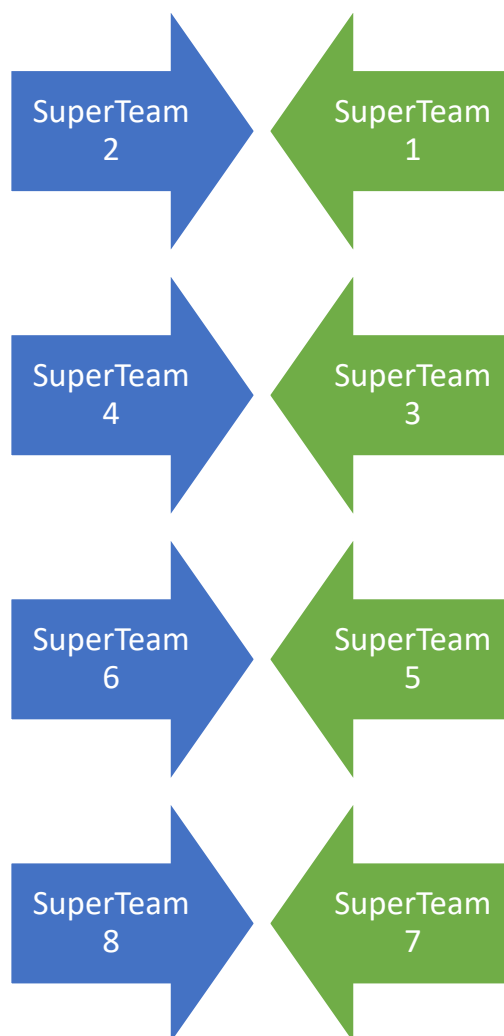
In this tournament mode, teams will be seeding at the beginning of each day. The first eight teams in Pot one, the second eight-team in Pot two and the third eight-team in Pot three. (Teams on the first day, ranked by TDP and Video submitted by the teams). Then, the teams will be grouped as follows:

Fourth SuperTeam	Third SuperTeam	Second SuperTeam	First SuperTeam
The fourth team	Third team	Second team	First team
Twelfth Team	Eleventh team	Tenth team	Ninth team
Twentieth team	Nineteenth Team	Eighteenth team	Seventeenth Team

Eighth SuperTeam	Seventh SuperTeam	Sixth SuperTeam	Fifth SuperTeam
Eighth team	Seventh team	Sixth Team	Fifth team
Sixteenth team	Fifteenth team	Fourteenth team	Thirteenth team
Twenty-Fourth Team	Twenty-third team	Twenty-second team	Twenty-first team

Each day, after the grouping of teams, each SuperTeam will be against next SuperTeam.



After defining SuperTeams, competitions will be held in three rounds, each day. The first two turns are held individual match as follows:

In the first round, SuperTeam 1 decides whether each of their teams wants to compete with the SuperTeam 2 teams. After the first round, in the next round, SuperTeam 2 will determine which SuperTeam 1 team to compete with.

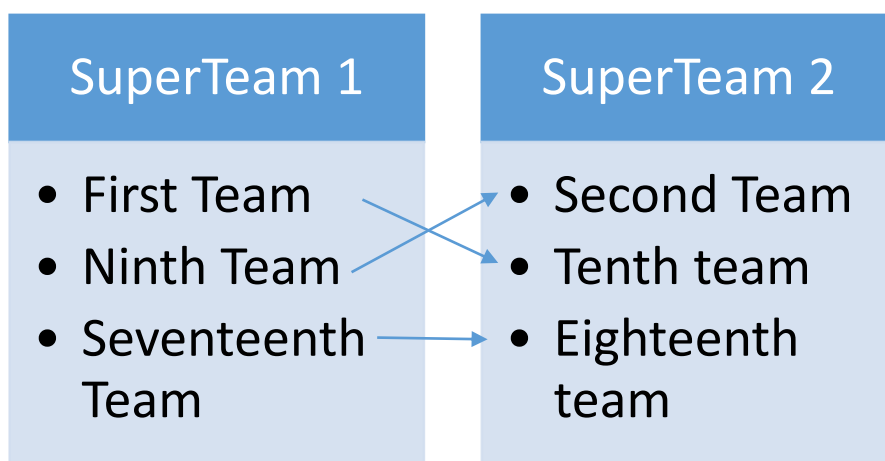


FIGURE 1 - AN EXAMPLE OF SUPERTeam 1 CHOOSES

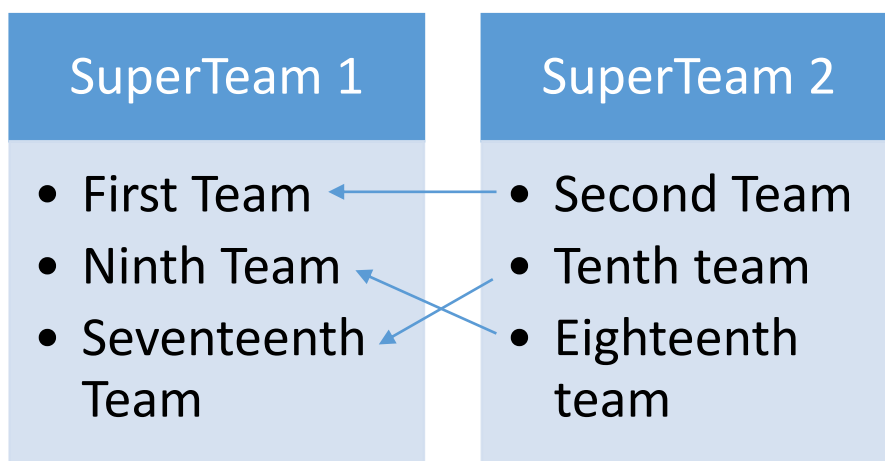


FIGURE 2 - AN EXAMPLE OF SUPERTeam 2 CHOOSES

After holding each round, each SuperTeam's team score will be awarded to all SuperTeams members. For example, in the event of winning the first team of the first SuperTeam in each of the games, all the members of that super team will receive three points. Thus, after two rounds each team can score up to 18 points.

*Note 1: Even SuperTeams, because they are made up of lower-ranked teams, have the privilege to choose their own opponent after the first round with a more accurate estimate.*

*Note 2: Games of each group are determined only by the consent of all members of that SuperTeams. If all members couldn't agree or the failure to present the at a specified time, the organization committee will take action to determine the competition in a draw.*

In the third round, the teams will face each other in Big Field. If each SuperTeam wins, all the members of that SuperTeam will receive three points. At the end of each day and after three rounds, each team can score from 0 to 21. At the end of the tournament, the Technical Committee will add a score of 0 to 10 to each of the teams based on technical interviews.

optional event:

At the end of the competition, the technical committee will choose 5 teams as "Champion candidate". at the last day, teams elected "the champion" by vote. Champion candidate team must have a good knowledge sharing during the competition with other teams because of the election.

#### Awards and How to Choose:

- 1) 1st to 3rd rankings - based on the score table
- 2) The best technical team - based on technical interview and robot design points
- 3) The best robot design - based on robot design
- 4) Best Poster - Based on poster judgments
- 5) Best Group - Based on the highest score earned by the group (In case of scores equality, The Most goals scored, will be Criteria)
- 6) Big field champion - the team that scored the most points in Big field games
- 7) The best technical presentation - Based on technical judgment
- 8) The Champion – Based on election

Disadvantages	Advantages
Match must be held in compressed sequence	Strengthening the spirit of sharing knowledge and collaboration
Requires professional and experienced technical committee	Fair match
Requires professional and experienced organizing committee	Individual competitions have a lot of excitement
	Low dependence ranks to chance
	Involving Big field's results in the final ranking
	The direct impact of team co-operation in Superteam on individual rankings
	Combine individual and group competitions
	The impossibility of fraud and collusion
	Multiple awards

### 3) Classic Big Field

In this manner, the teams are arranged in different groups each day in competition and compete in the Big field.

#### Awards and How to Choose:

- 1) Super Team Champion - Based on the results of the teams during the competition
- 2) The best technical team - Based on a technical interview
- 3) Best Super Team - Based on Super Team Interviews

Disadvantages	Advantages
Extremely high dependence on the chance	Strengthening the spirit of sharing knowledge and collaboration
The impossibility of showing individual teams' capabilities	Reducing psychological pressure on students
Boring tournament	No need for professional technical committee
Unmotivated teams to continue the tournament	Simplicity in holding
Unfair and cowardly results	
Unimportant competitions for students	
The low number of awards	