

### Robotics Competition Organization

The robotics competition will be held in a round-robin system. There will be six individual matches to determine which teams will go on to the championship series.

The individual matches will determine the bracket scores for each round. Each of these matches will consist of three teams facing off against each other to score the most points in a single match. The winner of each match receives 2 points towards their bracket score, second highest scorer will receive 1 point, and third place will receive zero points. After each match is completed, two teams are rotated out and a one competitor stays in for the next match. The rotation will be such that a team will only play in two consecutive matches. Each team should play in at least 3 matches.

Match 1		
Team	Score	Bracket
A	4	2
B	3	1
C	2	0

Match 2		
Team	Score	Bracket
B	3	1
C	5	2
D	2	0

Match 3		
Team	Score	Bracket
C	0	0
D	2	1
E	3	2

Match 4		
Team	Score	Bracket
D	5	1
E	4	0
F	6	2

Match 5		
Team	Score	Bracket
E	5	1
F	7	2
A	3	0

Match 6		
Team	Score	Bracket
F	2	0
A	5	2
B	4	1

Bracket Scores							
	Match						
Team	1	2	3	4	5	6	Total Bracket Score
<b>A</b>	2	-	-	-	0	2	4
<b>B</b>	1	1	-	-	-	1	3
<b>C</b>	0	2	0	-	-	-	2
<b>D</b>	-	0	1	1	-	-	2
<b>E</b>	-	-	2	0	1	-	3
<b>F</b>	-	-	-	2	2	0	4

**Figure 1: Example of match scores and corresponding bracket points that are awarded for each match. Please note that the team rotations used in the example will not be used in the actual competition.**

The teams with the top three **bracket scores** at the end of the six matches will go on to the championship round. In the event of a tie in bracket scores, the total scores from all the matches will be used to break the tie between the all teams. If there is still a tie, design penalties will be deducted again, only this time, from the total scores. *For clarification, design penalties can be assessed twice if the need arises.* These will be penalties include size and/or weight violations of the competition rules. There is an opportunity for teams eliminated in the first tie breaker to stay in competition.

If at the end of the second tie breaker the total scores still have a tie, eligible teams will play-off for a slot in the championship series. In the event there are two slots open, the top two scoring teams will play off for the two slots.

Elimination					
	Tie Breaker 1		Tie Breaker 2		Tie Breaker 3
Team	Bracket Score	Total Scores	Design Penalties	Total	Play-off
A	4	12	-1	11	
B	3	10	-1	9	Winner
C	2	7	0	7	
D	2	9	0	9	Eliminated
E	3	12	-3	9	Eliminated
F	4	15	-2	13	

**Figure 2: Table of elimination based off of bracket scores and tie breakers. Note that if Team D had a total score of 10, there would be NO play-off for a third tie breaker and Team D would be in the championship match.**

The playoff match will be one 5 minute match between the eligible teams to score the most points. No pre-match deductions will be assessed after a play-off match. If there is a tie, another match will be played to determine who stays in competition.

### Championship Series

The top three contenders will compete for cash prizes. The championship series will be played by elimination. The lowest scorer at the end of each round is eliminated.

If at the end of the first round there is a tie for second and third place, the tied teams will play for to break the tie. If the second round *winner's* score ties or breaks the winning score of the first round, that team earns the right to challenge for first prize.

Championship Match				
Team	Round 1	Round 2	Round 3	Place
A	6	Sits out	5	2nd
B	5	3	Eliminated	3rd
F	5	6	7	1st

**Figure 3: Table of a possible championship scenario.**