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2014-15 TOURNAMENT GUIDE

AIA Contact: Michele Staples
mstaples@aiaonline.org
602-385-3826

- **Tournament Information:**

- No entry fee to participate in the AIA Robotics State Championship.
- No admission fee to spectators.
- Spectators will be able to view the pit area from the seating area labeled on the map (see link below).
<http://aiaonline.org/files/14781/aia-robotics-state-championship-floor-layout-2014-15.pdf>
- Travel and food expenses are the responsibility of each Robotics team.

- **Season Begins:**

The season shall correspond with all dates and guidelines outlined by the FIRST Robotics Competition.

- **Contest:**

Each AZ FIRST Robotics team will be eligible to participate in the **AIA Robotics State Championship held on May 23, 2015 at the Prescott Valley Event Center (3201 N. Main Street) in Prescott Valley, AZ.** Teams will qualify for the event based on their performance at their initial FIRST Regional competition regardless of the location.

- **Robot Requirements:**

Teams will follow all the rules and guidelines of the FIRST Robotics Competition. Each robot must pass inspection to be allowed into the competition. Teams qualifying for the AIA Robotics State Championship will be allowed 6 hours of access time with a minimum of 30 minute increments and a maximum of (3) unbag access periods between their last competition and the AIA Robotics State Championship. This is patterned after the new District event guidelines (Admin Manual Section 7). The State Championship is a bag and tag event. Teams will document their work time as per FIRST rules for bag and tag events. Teams arriving without proper documentation or an unbagged robot can be disqualified at the discretion of the Lead Robot Inspector. **PLEASE NOTE: TEAMS WILL NEED TO SAVE THEIR REGIONAL BAGS TO REUSE THEM AT THE AIA ROBOTICS STATE CHAMPIONSHIP.**

- **Team Membership:**

All students eligible for membership on a FIRST Robotics team will be eligible for the AIA Robotics State Championship. Schools create teams based on standards set by each member school, with a minimum requirement that each student:

- Would be classified as a student in that school, including home schooled students per ARS §15-802.01.
- Students must be in good standing with school district No Pass No Play requirements.

- **State Competition Qualification:**

Teams qualify based on their performance point total at their initial FIRST Regional competition. Qualifying points are based on the District Model except points are applied from only one regional event.

http://www.usfirst.org/sites/default/files/uploadedFiles/Robotics_Programs/FRC/Game_and_Season_Info/2015/FRC_District_Standard_Points_Ranking_System_2015%20Summary.pdf).

- The exception to these point valuations is for a Chairman's Award submission:

- By submitting at any Regional competition, the team will be awarded 10 points.
- If teams present for Chairman's at multiple events, they will only receive 10 points.
- A team winning a Chairman's Award at any Regional competition automatically goes to the AIA Robotics State Championship.
- A total of (30) teams will qualify for the AIA Robotics State Championship.
- Given that teams play at many different events on different weeks, invitation to the AIA Robotics State Championship will be after the FIRST Regional events have concluded.
- Many of the point entries are manual operations and, consequently, errors may occur in point totals. Every effort will be made to correct any unintended errors.

- **Qualifying Entry:**

POINT CATEGORY	POINTS
Qualification Round Performance	
<p><i>QualificationPoints</i> (R, N, α)</p> $= \left\lceil \text{InvERF} \left(\frac{N - 2R + 2}{\alpha N} \right) \left(\frac{10}{\text{InvERF} \left(\frac{1}{\alpha} \right)} \right) + 12 \right\rceil$ <p>(For typically-sized district events, this will result in a minimum of 4 points being awarded for qualification round performance. For events of all sizes, a maximum of 22 points will be awarded)</p> <p>See examples below for application of this formula.</p>	
Final Alliance Captains After Picking	
#1 Alliance Captain	16
#2 Alliance Captain	15
#3 down to #8 Alliance Captain	14 down to 9
Draft Order by Acceptance	
#1 Draft Pick (Accepted)	16
#2 Draft Pick (Accepted)	15
#3 down to #16 Draft Pick	14 down to 1
Elimination Round Performance	
Quarter finals, for alliances that advance	5 points for every match played in, up to 10 points
Semifinals, for alliances that advance	3.3 points for each match played in, up to 10 points and rounded up to the nearest whole number
Finals, for the winning alliance	5 points for each match played in and won
Awards	
Chairman's Award Submission (any regional event)	10 (awarded once) <i>* Rookie teams are not eligible for Chairman's Award points</i>
Engineering Inspiration	8
Rookie All-Star	8
All other judged awards	5
Team Age	
Rookie Teams	10
2 nd year Team	5

Qualification Round Performance examples:

Lake Superior/10,000 Lakes:

Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Points	22	22	21	20	20	19	19	18	18	18	17	17	17	17	16	16	16	16	15	15	15	15	14	14
Rank	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Points	14	14	14	13	13	13	13	12	12	12	12	12	12	11	11	11	11	11	10	10	10	10	9	9
Rank	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63									
Points	9	9	8	8	8	8	7	7	7	6	6	5	5	4	3									

Northern Lights/North Star:

Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Points	22	22	21	20	20	19	19	18	18	18	17	17	17	16	16	16	16	15	15	15	15	14	14	14
Rank	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Points	14	14	13	13	13	13	12	12	12	12	12	11	11	11	11	11	10	10	10	10	9	9	9	9
Rank	49	50	51	52	53	54	55	56	57	58	59	60												
Points	8	8	8	7	7	7	6	6	5	5	4	3												

- **Tiebreaker Procedure:**

If any teams have the same number of points, the following hierarchy of tiebreakers will be used to break the tie:

- 1st Order Sort: Total Elimination Round Performance Points
- 2nd Order Sort: Best Elimination Round Finish
- 3rd Order Sort: Total Alliance Selection Results Points
- 4th Order Sort: Highest Qualification Round Seed or Draft Order Acceptance
- 5th Order Sort: Total Qualification Average
- 6th Order Sort: Highest Individual Match Score
- 7th Order Sort: Second Highest Individual Match Score
- 8th Order Sort: Third Highest Individual Match Score
- 9th Order Sort: Random Selection

- **Alternate Teams:**

If, prior to the competition, any team is unable to participate, an alternate will replace that team. Teams must accept their invitation to the AIA Robotics State Championship event two weeks prior to the event (May 23, 2015). If a qualifying team declines an invitation, the next highest qualifying team will be selected from the list of eligible teams. Alternate teams will have 48 hours to respond to an invitation.

- **Event Time Schedule:**

- **Friday Night (May 22, 2015)**

- **6:00 pm – 9:00 pm**

- Load-in, pit set-up, registration, robot inspection, robot-field radio connection and practice.

- **Saturday (May 23, 2015)**

- **8:30 am - Pits open**

- **9:30 am - Opening Ceremonies**

- **9:45 am-1:30 pm - Preliminary Rounds:**

- A random draw will determine alliance team composition for preliminary rounds. The number of preliminary matches for a 30-team field will be based on approximately 4 hours of play.

- **1:30 pm-1:45 pm - Alliance Selection:**

- The top four teams will be selected based on qualification score and sort order during the preliminary rounds (FRC Game Manual Section 5.3.4). The top four (4) teams will select alliance partners for the finals.

- **1:45 pm-2:30 pm - Lunch Break**

- **2:30 pm until completion with awards following immediately - Elimination round:**

- Elimination round will consist of semi-finals, third place, and finals. Play will be 2 out of 3 with a minimum of 5 minutes between rounds. The top (first) team listed in the bracket will be the red alliance.

- **3:00 pm - Semi-Finals:**

- Alliance #2 vs Alliance #4, Alliance #1 vs Alliance #3

- Alliance #2 vs Alliance #3, Alliance #1 vs Alliance #4

- Alliance #3 vs Alliance #4, Alliance #1 vs Alliance #2

- **Third Place:**

- Bottom two teams from Semi-Finals

- **Finals:**

- Top two teams from Semi-Finals

- **General Conduct:**

- Competing teams will conduct themselves in a manner displaying good sportsmanship throughout the State Championship.

- **Disputes:**

Any disputes arising during the competition shall be reported to the Head Referee and Tournament Director for resolution.

- **Awards:**

- **Trophies:** Awarded to the three teams in the first, second, and third place alliances.
- **Medals:** Awarded to the members of the three teams in the first, second, and third place alliances. (25 medals per team). Additional medals can be purchased after the event.
- **Banner:** Awarded to the three teams in the first place alliance.
- **Certificate of Participation:** Given to each team qualifying for the state tournament (25 per team). Additional certificates can be requested after the event.