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Camdenton hosts Mid MO *FIRST*® Tech Challenge

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The day started with teams setting up NASCAR style pits to prep their robots for competition.



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The Mid MO *FIRST*® Tech Challenge sponsored by Camdenton 4-H *FIRST*® LASER 3284 took place at Camdenton High School on Dec. 13.

The day started with teams setting up NASCAR style pits to prep their robots for competition. Teams then proceeded into closed-door judging sessions where they shared their Engineering notebooks, team stories, community service and how they have promoted STEM and *FIRST*® robotics in their community, state and nation.

After a high energy opening ceremonies where the Pride of the Lake Pep Band welcomed teams, Superintendent Dr. Tim Hadfield spoke about the importance of Gracious Professionalism®, competing with all your heart, but also helping out other teams and being gracious in the heat of the competition.

Teams then took to the competition field to take on this year's challenge "Cascade Effect" with an alliance partner that was randomly selected. Cascade Effect is played on a 12' X 12' square field with 1' walls and a soft foam mat playing surface. Two randomly-selected teams are paired as either "red" or "blue."

Scoring Elements are 160 white plastic balls - large (40) and small (120). In the middle of the field is the Center Field Structure which contains two Ball Dispensers with trap doors held in place by Alliance-specific Kickstands. There are also two Center Goals - one Red and one Blue - with Infrared Beacons placed beneath each Goal. The field has six Alliance-specific Rolling Goals with clear Ball Tubes of various heights (30 cm, 60 cm, 90 cm) as well as two Alliance-specific Ramps, Platforms, and Parking Zones.

At the start of the Match, the Balls (large and small) are loaded in the Dispensers in the Center Field Structure. Each Team is given two balls (one large and one small) that can be pre-loaded onto their robot.

During the Autonomous Period, the Center Structure will be rotated to one of three positions. Points will be awarded for Robots achieving certain tasks including placing Autonomous Balls in the Rolling Goal and/or Center Goal, Robots moving off the Platform, knocking over the kickstand (and releasing balls into the field of play), and moving their Rolling Goals into the Alliance's Parking Zone.

Driver-Controlled Period: In the next two minute Driver-Controlled Period, Robots are tasked with collecting Balls and placing them in the Rolling Goals. Balls Scored In the Rolling Goals are worth points based on the length of the Ball Tube and the Ball Height.

The End Game lasts 30 seconds of the Driver-Controlled Period is called the End Game. During the End Game, Robots may Score Balls into the Center Goal as well as the Rolling Goals. Teams can also earn bonus points for every Robot and Rolling Goal that is not in contact with the floor when the Match ends and by moving their Rolling Goals and/or Robots into the Alliance Parking Zone.

After numerous exciting matches the top teams advanced to make alliance selections for the semi finals and final matches.

Awards are as follows:

Judges Award: S and L Robotics 5033

Control Award:

1st place – Direct Current 5893

2nd Place – Fire & Ice 8136

3rd Place – Camdenton LASER #2 CMS

Motivate Award:

1st Place – Clockworks 8655

2nd Place – Camdenton LASER #5 CMS

3rd Place – Glendale High School Robotics 8856

PTC Design Award

1st Place Maniacal Mechanics

2nd Place Red Hot Techie Peppers 4587

3rd Place Camdenton LASER #4 CMS 5908

Rockwell Collins Innovate Award

1st Place – Camdenton LASER #4 CMS 5908

2nd Place Camdenton LASER #3 CMS 5907

3rd Place Direct Current 5893

Connect Award

1st Place Glendale High School Robotics

2nd Place The Harrisonville Corps 7532

3rd Place The Red Hot Techie Peppers 4587

Think Award

The Harrisonville Corps 7532

The Inspire Award

1st Place Red Hot Techie Peppers 4587

2nd Place Glendale High School 8856

3rd Place The Harrisonville Corps 7532

Advancing on to the State FIRST® Tech Challenge are the following teams:

The Red Hot Techie Peppers, Glendale High School, the Rolla Patriots and Camdenton LASER.

All five Camdenton 4-H LASER teams will compete at a second qualifier on Jan. 24, 2015 at Rolla High School hoping to advance more teams to the state tournament. The State Championship is hosted by the University of Missouri Science and Technology on March 7, 2015.

To learn more about the Camdenton FIRST® LASER programs please visit www.laser3284.org or contact the Camdenton R-III Afterschool Services office. The High School LASER 3284 team will have their kickoff to learn this year's challenge on Jan. 3, 2015.