INSIDE:

Quick stats on the four divisions at the Michigan State Championship!

The Thunder Press

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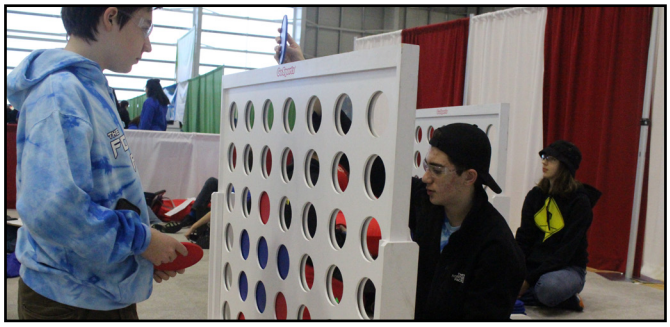
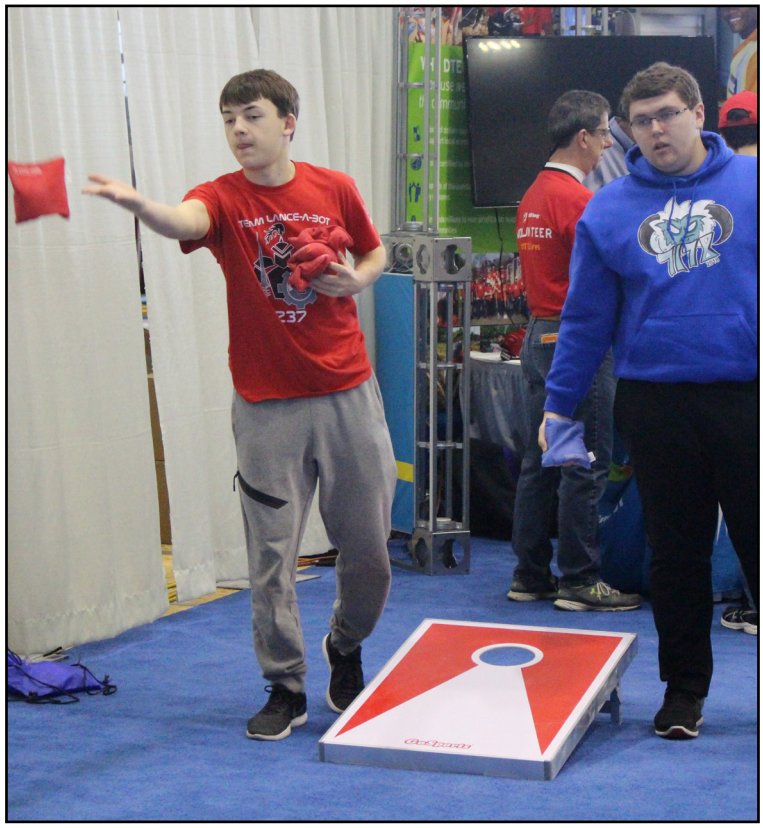




Photos By JENNA DICKENS

(Top Left) U.S. Air Force Lieutenant Colonel Corey Gardner at a sponsor booth. (Right/Bottom Left) Students play games in sponsored activity areas.

Taking a break from the bots

By KARLY GRAHAM

In the chaos of competition, there are few places team members can relax and recharge during the day, but there is an area designated for just that in what could be the most chaotic place of all: the pits.

In the pits at the FIRST Robotics Michigan State Championship, sponsors created special areas so students, mentors and visitors could escape the quick-paced nature of competition.

Featuring larger-than-life games including Jumbo Jenga and Connect 4, the area is also stocked with charging stations for phones, bean bag chairs, and arcade games.

Sponsors helped set up the area, which encouraged students to interact with representatives from the various sponsoring companies.

"When you're relaxing, you have more time to talk. If you're out in other areas, people are working [and] they don't want to do anything else; they just want to get their job done," U.S. Air Force Lieutenant Colonel Corey Edmunds said.

"This area, where we can communicate and have a conversation -- there's different things somebody would tell about the different opportunities."

Some sponsors -- including DOW Chemical, Ford Motor Company, DTE Energy, Consumers Energy and the U.S. Air Force -- also set up booths with informational materials to distribute.

The booths allow students to see what careers are available in specific fields.

"It's a good way for kids to look into the future and see things as more than they are now. Seeing technology is the future, it's a no brainer, getting kids into into technology now is the best thing for them," Kingston Robo-Cards (Team 4994) junior Brian Hobson said.

The relaxation areas are both great ways for students to decompress and for sponsors to advertise their companies.

Having Trouble?

Come to Team 217's pits and we'll be glad to help out with anything you need! Good luck to all competing!

Photo By KARLY GRAHAM

IMPI Robotics scouting team members review scouting information before alliance selection Friday at the FIRST Robotics Michigan State Championship.

Data masters: the role of scouting

By KARLY GRAHAM

While it's only one person per team on the field during alliance selection, teams often rely on groups of student scouters working behind the scenes to determine which robots get picked for each alliance.

For the second year, the FIRST Robotics Michigan State Championship is organized into four different divisions, putting those scouters in difficult positions.

Scouts are responsible for tracking multiple data points for every competing robot, and splitting scouts between the four fields can be difficult due to limited team members.

Teams scout in order to perfect their strategies during qualification rounds and to ensure a strong alliance.

Teams tend to choose alliance partners that are stronger in specific fields that they struggle with.

For example, if one team excels at maintaining control of the switches, they might want to invite a robot that maintains scale control to join their alliance.

Teams also look for alliance partners that will allow them to have the ability to earn as many ranking points as possible to try to rank higher during qualification rounds.

"We want a team that is able to cross the baseline, and the auto switch is a positive," IMPI Robotics (Team 1025) senior and Co-Scout Captain Jacob Reyes-Winowiecki said.

Teams scout for reasons beyond choosing alliance partners in elimination rounds.

Alliances also use their scouting information to know what other teams are capable of so that they can craft a better strategy.

"We look at all the data from the scouting sheets to find trends," Reyes-Winowiecki said. "Our strategy team tries to find any weaknesses in the opposing alliance so we can be successful."

But not every team has the resources to support a robust scouting approach.

"We kinda have a simple one [scouting sheets]," said Chloe Hauxwell, a scouting mentor for rookie team Hollywood (Team 7211). "I've been entering into a spreadsheet. That's basically all we do. We use it to find basic information."

Each year, scouting changes in one way or another. The 2017 game, FIRST Steamworks, for example, was heavily focused on pure ability, and many robots were incredibly similar in design.

This year's game, however, allows for more variations in robot design. This increases the need for effective strategy.

One part of this year's game is climbing during the end game (the final 30 seconds of a match) to defeat the boss. Teams have the option to help lift other robots, and some have achieved that capability.

A triple-climb is worth 90 points, and teams earn an extra ranking point for it during qualification rounds.

But there are other ways to earn points during matches. Multiple those ways by six teams competing in each match on each of four different fields, and the work can quickly become overwhelming.

"We don't scout on different fields," said senior Hunter Reeves of rookie team Huskies Robotics (Team 7244), noting that it's very difficult to handle the volume of teams competing at once.

For some, the hardest part of scouting is making sure everything remains consistent and accurate.

"We prioritize reliability," Byting Bulldogs (Team 3539) junior Charlotte Sheets said.

There is always the possibility that students will miss a penalty call or miscount how many power cubes were placed on the scale, but the goal is to record as much useful data as possible.

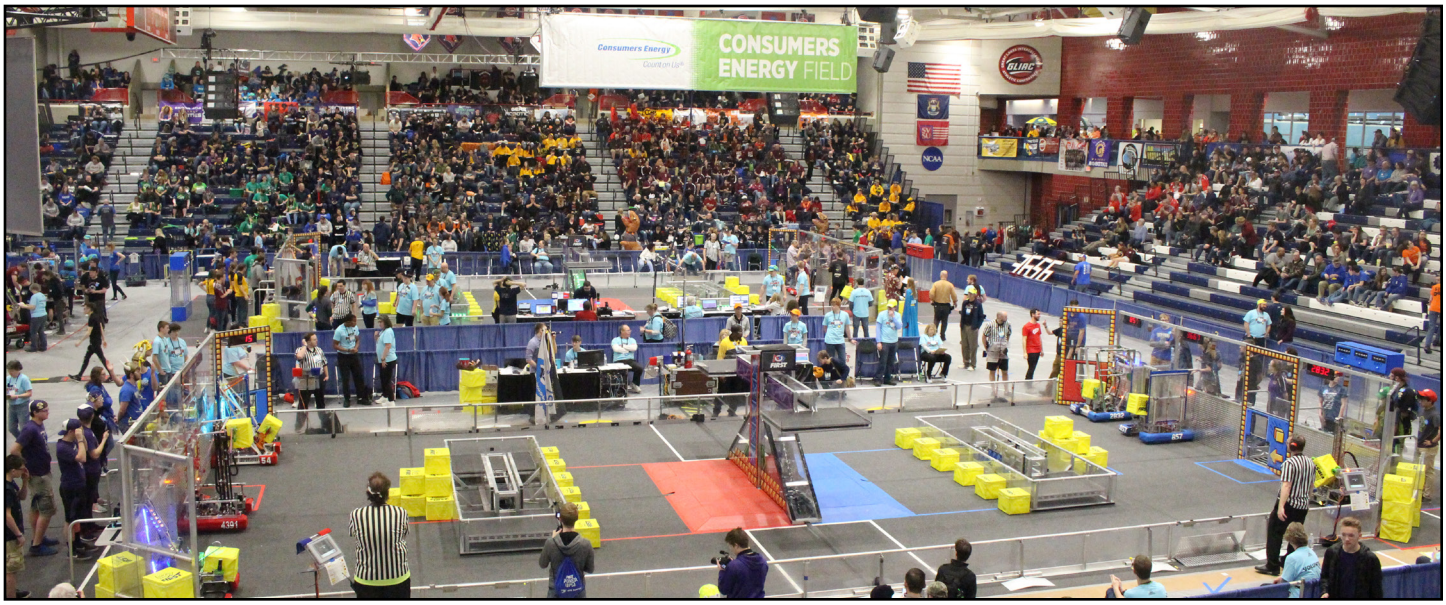
When done well, scouting can help teams in their strategy development and alliance selection -- for those that make it to the top ranks.

"We're not at the level where we expect to get that far," Hauxwell said, adding that her team isn't really focused on scouting other divisions. Instead, it focuses its resources on teams within its own division.

Some teams elect not to scout at all, including rookie team Rebel Robotics (Team 7234).

But according to junior team member Alfredo Corbera, that doesn't mean the team is without a strategy if they needed to contribute to robot selection on an alliance.

"We'd just go by luck," said Corbera.



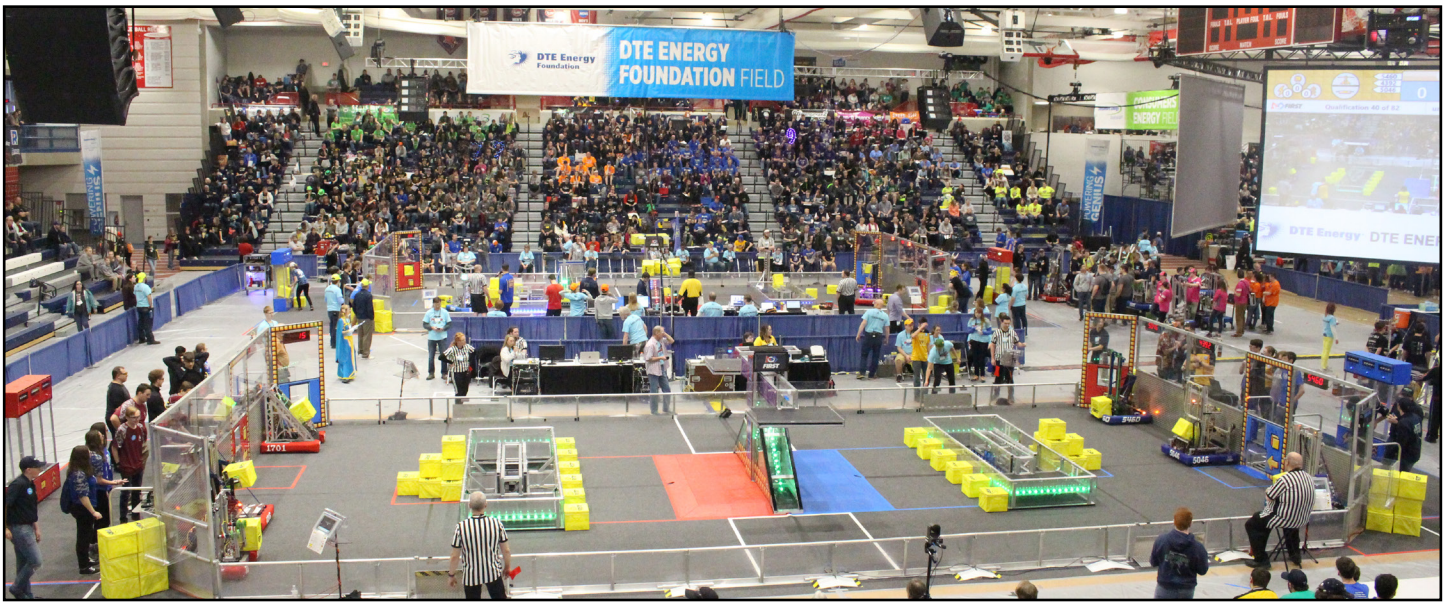
Consumers Energy Division

Total number of teams competing in the division: **40**
Number of rookie teams in the division: **4**
Oldest team in the division: **Team RUSH (Team 27)**
Youngest team in the division: **OsCODEa 0w|5 (Team 7250)**
Number of previous FIRST in Michigan District Championship wins in the division: **3**
Average team number of division: **3864***

Ford Division

Total number of teams competing in the division: **40**
Number of rookie teams in the division: **3**
Oldest team in the division: **The Wings of Fire (Team 51)**
Youngest team in the division: **Tactical Hams (Team 7248)**
Number of previous FIRST in Michigan District Championship wins in the division: **4**
Average team number of division: **3867***

**Typically, a lower team number indicates an older team (the range represented at this competition features 2-digit to 4-digit numbers). Averaging the team numbers in a division and comparing to the averages of other divisions is one way to evaluate the balance of new and old teams in a division.*



DTE Energy Division

Total number of teams competing in the division: **41**
Number of rookie teams in the division: **4**
Oldest team in the division: **Killer Bees (Team 33)**
Youngest team in the division: **Huskies Robotics (Team 7244)**
Number of previous FIRST in Michigan District Championship wins in the division: **10**
Average team number of division: **4321***

Dow Division

Total number of teams competing in the division: **40**
Number of rookie teams in the division: **4**
Oldest team in the division: **The Feds (Team 201)**
Youngest team in the division: **Irish Robotics (Team 7256)**
Number of previous FIRST in Michigan District Championship wins in the division: **3**
Average team number of division: **3846***

**Typically, a lower team number indicates an older team (the range represented at this competition features 2-digit to 4-digit numbers). Averaging the team numbers in a division and comparing to the averages of other divisions is one way to evaluate the balance of new and old teams in a division.*

Compiled By SUSAN HOLTAN / Photos By JENNA DICKENS

Chairman's Award a top honor

By SUSAN HOLTAN

The Chairman's Award, said to be the most prestigious award in FIRST, is only awarded to the top teams exhibiting hard work and dedication to their community and to FIRST.

This award is judged based on a team's essay, presentation and video, all of which are expected to showcase the work of the team on and off the field.

Although Chairman's aims to acknowledge a team's efforts to improve FIRST and their community, every team has a different approach to achieving success.

Foley Freeze (Team 910), winner of the 2018 Troy District Chairman's Award, is one of 26 teams competing to take home the Michigan State Championship Chairman's Award. They utilize a collaborative approach to develop their Chairman's submission.

"We sit together and we talk about what do we do, what should we do, or what can we do to make our community better and learn more about FIRST and just become more involved in STEAM," says Tim Zoski, a senior on Foley Freeze.

FIRST has a mission to promote STEM alongside its message of gracious professionalism and coopertition throughout many communities.

Chairman's embodies this message by promoting teams to better their commuities as well as encourage STEM.

Many teams focus their efforts on outreach outside of FIRST in order to spread FIRST's message.

Metal Muscle (Team 1506) is another team competing for this event's Chairman's award.

"I feel it's important because FIRST isn't just about the robot," said senior Erin Wolfert, in charge of business plans and multimedia on Metal Muscle.

"Chairmans encourages students to go out and spread FIRST, to help the community, and get more women in FIRST."

The 2018 Michigan State Chairman's Award winners will be announced at the end of the competition Saturday.

Photo By JENNA DICKENS

Drive teams get ready to take control of their robots during a match at the FIRST Robotics Michigan State Championship event in Saginaw Friday.

What it takes to make it to the FIRST Championship

By SUSAN HOLTAN

For teams wishing to participate in the FIRST Championship from April 18-21 in Houston, Texas or from April 25-28 in Detroit, Mich., specific requirements must be met in order to qualify.

Teams can qualify through one of four methods:

Pre-Qualified Teams

FIRST Championship Chairman's Award winners (Hall of Fame teams), original and sustaining teams, 2017 FIRST Championship FIRST STEAMWORKS winners, 2017 FIRST Championship FIRST STEAMWORKS Engineering Inspiration Award winners, and 2017 FIRST Championship Chairman's Award finalists are all pre-qualified to participate in the championships.

There are six Michigan teams pre-qualified for the 2018 FIRST Championship.

Merit-Based

Merit-based qualifiers include 2018 Chairman's Award winners, 2018 Engineering Inspiration Award winners, 2018 Rookie All-Star Award winners, 2018 state championship event winners and top-ranked teams at 2018 district championships.

Select Veteran Teams

Veteran teams can sign up for the championship wait list to fill any remaining slots not filled by qualifying teams. At various points throughout the season, teams signed up for the wait list may be randomly selected to participate in the championship.

Wild Card Slots

If a team competing at a regional earns more than one FIRST Championship slot, a wild card slot will be generated. This can occur if a team at a regional earns an additional championship slot after earning a slot before the regional, or if a team earns two qualifying spots at a single regional. If a team that already has a championship slot prior to the regional earns two qualifying spots at the regional two wild card slots will be generated. The wild card slots are then filled by the regional finalist alliance in order of team selection (meaning that the order is alliance captain, 1st pick, 2nd pick, backup), until all slots are distributed or all teams are qualified.

Teams have the option to decline a wild card slot, in which case the slot goes unused.

For more information on championship qualification, visit www.firstinspires.org.

Chicken Challenge

Be one of the first to tweet pictures of these items found at the Michigan State Championship to @TC_217 with #FIRSTspotted and receive a copy of our children's novel, Flooded!

- A pin
- A fire alarm
- A cardinal
- A green sock
- A mascot
- A bandana
- A paper air plane
- A robot with ramps
- A selfie with an announcer
- A snowcone

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