

2019-2020

Updated 09/05/2019

Award Descriptions

This judged award is given to the team that best embodies the 'challenge' of the *FIRST* Tech Challenge program. The team that receives this award is a strong ambassador for *FIRST* programs and a role model *FIRST* team. This team is a top contender for many other judged awards and is a gracious competitor. The Inspire Award winner is an inspiration to other teams, acting with *Gracious Professionalism®* both on and off the playing field. This team shares their experiences, enthusiasm and knowledge with other team, sponsors, their community, and the Judges. Working as a unit, this team will have showed success in performing the task of designing and building a robot.

Award and Description

Criteria

Required criteria for the Inspire Award:

- Team shows respect and Gracious Professionalism[®] to everyone they meet at a FIRST Tech Challenge event.
- Team is a strong contender for several other Judged awards. The Inspire Award celebrates the strongest qualities of all the Judged Awards.
- The team is an ambassador for FIRST programs.
 They demonstrate and document their work in their community.
- Team is positive and inclusive, and each team member contributes to the success of the team.
- Team must submit an <u>engineering notebook</u>. The engineering notebook must include engineering content, team information and a team plan. The entire engineering notebook must be high quality, thoughtful, thorough, detailed and well-organized.
- Robot design is creative and innovative, and the robot performs reliably on the field. The team communicates clearly about their robot design and strategy to the judges.
- Team presentation is professional and engaging.

Think Award

Inspire Award

Required criteria for the Think Award:

Removing engineering obstacles through creative thinking.

This judged award is given to the team that best reflects the journey the team took as they experienced the engineering design process during the build season. The engineering content within the notebook is the key reference for Judges to help identify the most deserving team. The team's engineering content must focus on the design and build stage of the team's robot. Journal entries should include descriptions of the underlying science and mathematics of the robot design and game strategies, the designs, redesigns, successes, and opportunities for improvement. A team is not a candidate for this award if their notebook does not contain engineering content.

- Team shows respect and Gracious Professionalism® to everyone they meet at a FIRST Tech Challenge event.
- Team must submit an engineering notebook. The engineering notebook must include entries describing underlying science, mathematics, and game strategies.
- The engineering notebook must show that the team has a clear understanding of the engineering design process, with pictures or drawings and details documenting all stages of robot design.
- Notebook must recount the team's journey, experience and lessons learned throughout the season.
- Engineering notebook must be organized and should include a summary page. Note: Teams

should review the engineering notebook resources published in the Team Management section of the *FIRST* website.

Strongly suggested criteria for the Think Award:

 Teams should tab or flag 6 to 8 pages of the Engineering Notebook(s) to support entries on the summary page.

Connect Award

Connecting the dots between community, FIRST, and the diversity of the engineering world.

This judged award is given to the team that most connects with their local science, technology, engineering and math (STEM) community. A true *FIRST* team is more than a sum of its parts and recognizes that engaging their local STEM community plays an essential part in their success. The recipient of this award is recognized for helping the community understand *FIRST*, the *FIRST* Tech Challenge, and the team itself. The team that wins the Connect Award aggressively seeks and recruits engineers and explores the opportunities available in the world of engineering, science and technology. This team has a clear team plan and has identified steps to achieve their goals.

Required criteria for the Connect Award:

- Team shows respect and Gracious
 Professionalism[®] to everyone they meet at a FIRST Tech Challenge event.
- Team must submit an engineering notebook. The
 engineering notebook must include team plan that
 identifies their future goals and the steps they will
 take to reach those goals. Examples of what the
 plan could include are fund-raising goals,
 sustainability goals, timelines, outreach, and
 community service goals.
- Team provides clear examples of developing in person or virtual connections with individuals in the engineering, science, or technology community.
- Team actively engages with the engineering community to help them understand *FIRST*, the *FIRST* Tech Challenge, and the team itself.

Collins Aerospace Innovate Award

Bringing great ideas from concept to reality.

The Collins Aerospace Innovate Award celebrates a team that thinks outside the box and has the ingenuity, creativity and inventiveness to make their designs come to life. This judged award is given to the team that has the most innovative and creative robot design solution to any specific components in the FIRST Tech Challenge game. Elements of this award include elegant design, robustness, and 'out of the box' thinking related to design. This award may address the design of the whole robot or of a sub-assembly attached to the robot. The creative component must work consistently, but a robot does not have to work all the time during Matches to be considered for this award. The team's engineering notebook must include journal entries to show the design of the component or components and the team's robot to be eligible for this award. Entries must describe how the team arrived at their solution.

Required criteria for the Collins Aerospace Innovate Award:

- Team shows respect and Gracious Professionalism® to everyone they meet at a FIRST Tech Challenge event.
- Team must submit an engineering notebook. The engineering notebook must include engineering content that documents the design process and how the team arrived at their design solution.
- Robot or robot sub-assembly must be creative, elegant and unique in its design.
- Creative component must be stable, robust, and work reliably.
- Robot design is effective and consistent with team plan and strategy.

Design Award

Industrial design at its best.

This judged award recognizes design elements of the robot that are both functional and aesthetic. The Design Award is presented to teams that incorporate industrial design elements into their solution. These design elements could simplify the robot's appearance by giving it a clean look, be decorative in nature, or otherwise express the creativity of the team. The robot should be durable, efficiently designed, and effectively address the game challenge.

Required criteria for the Design Award:

- Team shows respect and Gracious
 Professionalism® to everyone they meet at a FIRST Tech Challenge event.
- Team must submit an engineering notebook with engineering content that includes robot CAD images, or detailed design drawings.
- Team demonstrates industrial design principles, striking a balance between form, function, and aesthetics.
- Robot distinguishes itself from others by its aesthetic and functional design.
- Basis for the design is well considered (that is inspiration, function, etc.).

Motivate Award

Sparking others to embrace the culture of FIRST!

This team embraces the culture of *FIRST* and clearly shows what it means to be a team. This judged award celebrates the team that represents the essence of the *FIRST* Tech Challenge competition through team building, team spirit and displayed enthusiasm. This is a team who makes a collective effort to make *FIRST* known throughout their school and community, and sparks others to embrace the culture of *FIRST*.

Required criteria for the Motivate Award:

- Team shows respect and Gracious
 Professionalism[®] to everyone they meet at a FIRST Tech Challenge event.
- Team must submit an engineering notebook. The
 engineering notebook must include a team plan,
 which could describe their future goals and the
 steps they will take to reach those goals.
 Examples of what the plan could include are fundraising goals, sustainability goals, timelines,
 outreach, and community service goals.
- The team is an ambassador for *FIRST* programs.
- Team can clearly show the successful recruitment of new teams, mentors, coaches and volunteers who were not already active within the STEM community.
- Team can explain the individual contributions of each team member, and how these apply to the overall success of the team.

Strongly suggested criteria for the Motivate Award:

- All team members take part in their presentation, and actively engage with the judges.
- Team shows a creative approach to materials that market their team and FIRST.

Control Award, sponsored by Arm, Inc.

Mastering Robot intelligence.

The Control Award celebrates a team that uses sensors and software to increase the robot's functionality in the field. This award is given to the team that demonstrates innovative thinking to solve game challenges such as autonomous

Required criteria for the Control Award:

- Team shows respect and Gracious
 Professionalism® to everyone they meet at a FIRST Tech Challenge event.
- Team must apply for the Control Award by filling

operation, improving mechanical systems with intelligent control, or using sensors to achieve better results. The control component should work consistently in the field. The team's engineering notebook must contain details about the implementation of the software, sensors, and mechanical control, but does not need to include copies of the code itself.

out the Control Award Content Sheet, located in Appendix D.

- The team must submit an engineering notebook.
 The engineering notebook must include an engineering content that documents the control components.
- Control components must enhance the functionality of the robot on the playing field.

Strongly suggested criteria for the Control Award, sponsored by Arm, Inc.:

- Advanced software techniques and algorithms are encouraged.
- Control components should work reliably.

Video must meet the following criteria:

Promote Award

Required criteria for the Promote Award:

This judged award is optional and may not be given at all tournaments. Your Judge Advisor will have information about the Judging for this Award.

The Promote Award is given to the team that is most successful in creating a compelling video message for the public designed to change our culture and celebrate science, technology, engineering and math. Teams must submit a one-minute long public service announcement (PSA) video based on the PSA subject for the season.

Teams may win the Promote Award only once at a Championship level event and only once at a qualifying level event.

PSA Subject for 2018-2019 Season:

"How has FIRST changed YOU?"

- - Video Must follow FIRST branding and design standards
 - Video cannot be longer than 60 seconds.
 - Video must be of a high quality, as submissions may be used later to promote FIRST.
 - Team must have rights to music used in the video.
 - Music and permissions must be listed in video credits
 - Video must have strong production value.
 - Video must be submitted by the deadline given by the Event Organizer
 - Team must present a thoughtful and impactful video which appeals to the public.
 - Creativity in interpreting the yearly theme is required.
 - Follow video award submission guidelines.

Compass Award

A beacon and leader in the journey of the FIRST Tech Challenge.

This judged award is optional and may not be given at all tournaments. Your Judge Advisor will have information about the Judging for this Award.

The Compass Award recognizes an adult coach or Mentor who has given outstanding guidance and support to a team throughout the year and demonstrates to the team what it means to be a Gracious Professional. The winner of the Compass Award will be determined from candidates nominated by *FIRST* Tech Challenge student team members,

Required criteria for the Compass Award:

- Video must meet the following criteria:
 - Video Must follow FIRST branding and design standards
 - Video cannot be longer than 60 seconds.
 - Video must be of a high quality, as submissions may be used at a later time to promote FIRST.
 - Team must have permission from the copyright owners for music used in the

via a 40-60 second video submission. The video must highlight how their Mentor has helped them become an inspirational team. We want to hear what sets the Mentor apart.

video.

- Music and permissions must be listed in video credits
- Video must be submitted by the deadline given by the Event Organizer.
- Video highlights the mentor's contribution to the team and demonstrates what sets the mentor apart.
- Follow <u>video award submission guidelines.</u>

Judges Award

This award is optional and may not be given at all tournaments. The Judge Advisor will communicate with the Tournament Director to learn if this Award will be presented, and to decide who the appropriate reviewers for this Award are.

During the competition, the judging panel may meet a team whose unique efforts, performance or dynamics merit recognition, yet doesn't fit into any of the existing award categories. To recognize these unique teams, *FIRST* offers a customizable Judges Award. The judging panel may select a team to be honored, as well as the name of the Judges' Award. The Judges Award recognizes a team for their outstanding efforts but does not factor into the Advancement Criteria.

Winning Alliance Award

This award will be given to the winning Alliance represented in the final match.

Finalist Alliance Award

This award will be given to the finalist Alliance represented in the final match.