



6 Awards (A)

FIRST Tech Challenge celebrates the excitement of competition both on and off the field. Through the following awards, we celebrate the *FIRST* Core Values which makes us so much #morethanrobots. Please note that different event types (e.g., League Tournaments, Regional Championship, *FIRST* Championship) or event sizes may offer different sets of awards. Not every award is presented at every *FIRST* Tech Challenge event. No awards are presented at League Meets, see section <u>14 League Play Tournaments</u> (L), additional details by event type are available in the sections below.

Judged awards are determined by volunteers from the community who prepare for the event with thorough training and certification. There are 2 key judging volunteer roles:

- JUDGES meet with teams to learn about and celebrate the unique journey and accomplishments of each team and evaluate these against award requirements. JUDGES interact with STUDENTS during the interview process, and in the pits. As a group, JUDGES determine the teams that receive awards at events.
- JUDGE advisor (JA) trains, directs, and supervises JUDGES throughout the event. JUDGE advisors
 oversee the judging processes and procedures to make sure they are in accordance with *FIRST* Tech
 Challenge judging guidelines.

FIRST Tech Challenge judging is delivered in one of two ways. Most events will have in-person ("traditional") judging along with the standard in-person gameplay. The second is hybrid format which has in-person gameplay, but judging is done remotely before in-person gameplay. This manual will primarily describe the traditional in person judging process. The remote judging process follows the same overall judging standards and requirements, but interviews are conducted online, and no face-to-face meetings are required.

Teams may also read the <u>Judge and Judge Advisor Manuals</u> to gain more insight into the complete judging process.

6.1 Team Judged Awards Overview and Schedule

Most *FIRST* Tech Challenge awards fall into two broad categories: Machine, Creativity, and Innovation (MCI), and Team Attributes (TA), with two additional special awards: Inspire and Think (Figure 6-1).



Figure 6-1: Award hierarchy





- MCI awards recognize the technical accomplishments of teams in the planning, design, construction, operation, and control of their ROBOTS.
- TA awards recognize teams who have developed strong partnerships with their community. This includes recruiting members, fund-raising, and the teams' outreach efforts to spread FIRST's message about the benefits that can come from the study of math, science, and technology.
- The Think Award recognizes teams who masterfully document their team's process and product using their PORTFOLIO.
- The Inspire Award recognizes teams who excel in MCI, TA, and Think award accomplishments. _ This team is an all-around inspiration for others

The JUDGES will gather information from the teams through several different pathways (Figure 6-2). All teams will have the opportunity to submit a written PORTFOLIO which should document aspects of their teams which directly support the judged award criteria or information which they wish the JUDGES to consider. All teams are encouraged to prepare for a judging interview session where the team can present a prepared oral presentation to a small panel of JUDGES about their team followed by a O&A session. After all the judging panels have finished, the JUDGES compare notes and may elect to follow up with the teams in the pit area during the competition and conduct more informal pit interviews. JUDGES may also accept feedback about teams at the event from other event volunteers to help inform their understanding of the team.



Figure 6-2: Sources of information for Judged Awards

In addition to the specific information sources JUDGES use to evaluate teams, there are also sources of information which are specifically disallowed. JUDGES are strictly instructed to only consider information from the current event and cannot consider information from outside what they have seen or heard at the current event. This means that information like past performance (good or bad), personal knowledge of a team, and external sources like websites and social media are not considered. JUDGES also do not consider overall ROBOT performance in an award unless it is specifically listed as part of the required or encouraged evaluation criteria.

The awards are a method *FIRST* uses to inspire STUDENTS and open their eyes to building a better future together. The awards process should foster a positive STUDENT interaction with JUDGES who are successful professionals and can recognize their achievements and encourage them to continue learning.

All award winners chosen by the JUDGES are recognized as being positive examples of the award guidelines, not necessarily the "best" team.

Teams may participate in judging regardless of the inspection status of their ROBOT and are eligible for awards even if they are attending the event without a ROBOT.





- A101 ***Team PORTFOLIOS have limits.** Teams have the opportunity to submit a team PORTFOLIO to be used as part of the judging process. No other printed or digital content not directly included in this document will be collected by the JUDGES to consider during deliberations. PORTFOLIOS must meet the following requirements:
 - A. must consist of 1 cover page including the team number and optionally: team name, PORTFOLIO table of contents, team organizations, sponsors, logo, motto, and picture of the ROBOT and/or team.
 - B. no more than 15 pages of judged content (if printing front and back, 8 sheets of paper, including the cover page)
 - C. use only US Letter (8.5" x 11") or A4 (210 x 297 mm) size paper.
 - D. font minimum of 10 point or larger
 - E. if submitted digitally, the complete submission must be less than 15MB in size.

None of the content of the cover page will be used by JUDGES to evaluate any awards criteria. Any content beyond the allowed 15 pages will not be reviewed by the JUDGES.

The JUDGES use the cover page to identify the team associated with the PORTFOLIO. Teams who forget to include a cover page may be disqualified from judging if the JUDGES cannot determine what team the PORTFOLIO is associated with.

Font minimums are used to help ensure minimum readability. Teams should carefully consider font size, color, and graphic design when making their PORTFOLIO so that all JUDGES are able to read their submission. Teams whose design choices include small fonts or low contrast text on images will not be excluded from consideration but understand that JUDGES will not be able to use anything they cannot read.

JUDGES will not open, view, or use any included links to other documents, websites, or videos referenced to linked to from the PORTFOLIO.

Teams may use writing and research aids including Artificial Intelligence (AI) to help them compose their PORTFOLIOS. If AI or other resources are used, they must be credited via footnote or endnote.

A102 *PORTFOLIOS must be submitted on time as requested. To be considered as part of the judging process a team must submit their PORTFOLIO as instructed by the event director and by the stated deadline. If no other instructions are provided, teams should submit 1 printed copy of their PORTFOLIO during the judging interview.

Instructions about when and how teams should submit their PORTFOLIOS should be communicated by the event director before the event.

If circumstances prevent a team from following the PORTFOLIO submission instructions, the event director should work with the JUDGE advisor to make reasonable accommodations to accept all team PORTFOLIOS unless doing so poses an undue burden to the judging process.

A103 ***Teams must attend a judging interview session.** To be considered for any judged awards the team must attend their assigned judging interview session.





Teams should be informed of their assigned time by the event director or local program delivery partner in advance of the event. If there is a schedule conflict or the team misses their interview slot due to unforeseen circumstances the team should work with the event director or local program delivery partner to make alternate accommodations for a judging interview at the event if possible.

- A104 *Bring the right resources with you to your judging interview. Teams attending their judging interview time slot should come prepared with the following:
 - A. no less than 2 STUDENT representatives for teams of 2 STUDENTS and larger,
 - B. a copy of their team PORTFOLIO (optional, submit as instructed by the event director)
 - C. "show and tell" demonstration items which may include the team's ROBOT (encouraged, but optional)
 - D. 1 silent observer per A108 (optional)
 - E. 1 support person to fill accommodations needs per A109 (optional, as needed)

Teams are encouraged to have as many STUDENTS as possible involved in the judging interview process.

A team does not have to have a ROBOT to participate in judging or be eligible for judged awards. If the team brings a ROBOT to present to the JUDGES it does not have to be inspected but should be built to be compliant with the current season's *FIRST* Tech Challenge ROBOT construction rules and designed to play this season's game.

- A105 *Everyone gets equal judging interview time. All teams will be scheduled for the same length judging interview of at least 10 minutes with a minimum of 10 minutes reserved between judging interviews for JUDGES to confer.
- **A106 *The judging interview timer starts when the team starts.** The timer starts after the team has entered the room and when they begin their presentation. Teams who take an extended amount of time to begin will be warned by the JUDGES to begin promptly and then the judging interview timer will be started regardless of the readiness of the presenting team.

Teams should enter the room and prepare to begin speaking in an expedited manner. This rule is aimed at letting large teams get lined up and oriented in the room and for the JUDGES to introduce themselves and provide reminders of the interview format.

Do not attempt to abuse the delayed start timer to set up equipment or otherwise gain an advantage.

- **A107** *Prepared formal presentation time should not be interrupted. The first 5 minutes of the judging interview are reserved for the team to present a prepared oral presentation uninterrupted, if they choose. The uninterrupted presentation time may be ended early by the team. Any remaining time should be a back-and-forth question and answer-type conversation with the STUDENTS and led by the JUDGES.
- **A108 *One adult silent observer is welcome.** One adult mentor may attend the judging session and be present for any interaction between the JUDGES and the STUDENT team members. The adult observer may not interact or coach actively during any interaction between the JUDGES and the STUDENT team members.





The purpose of the adult silent observer is to provide silent confidence to the STUDENT team members presenting in an unknown environment with new people. The adult observer can also provide coaching and feedback to their team following the conclusion of the judging interview and outside of the designated judging space.

- A109 *Translator accommodations will be made for teams who need it. Teams who need to use a translator to communicate with the JUDGE panel may provide one if the team's native language does not match that of the event host site provided JUDGES. This includes sign language or other adaptive technology. Teams who intend to interview with the assistance of a translator should work with the event director in advance to request additional interview time of between 2 and 5 minutes. The translator may be an adult and can be in addition to the silent observer in A108.
- A110 *No Video or Audio recording during judging interview. In addition to the restrictions of E117, teams may not record any video or audio during their judging interview.
- A111 *The number of awards given scales with event size. Total number of awards given is based on the number of teams checked in at the event. Not all awards are given at every competition. Check the Judge and Judge Advisor Manuals for exact details.

		Т	otal Awards Par	ticipating Teams	;
Award		4-10 Teams	11-20 Teams	21-40 Teams	41-64 Teams
Inspire	e Award	Award 1 st Place		1 st Place 2 nd Place 3 rd Place	1 st Place 2 nd Place 3 rd Place
Think	Award	1 st Place	1 st Place	1 st Place 2 nd Place	1 st Place 2 nd Place <i>(3rd Place*)</i>
TA Awards	Connect Award	1 st Place	1 st Place	1 st Place (2 nd Place*)	1 st Place 2 nd Place (3 rd Place*)
TA A	Motivate Award	(1 TA award will be given)	1 st Place	1 st Place (2 nd Place*)	1 st Place 2 nd Place <i>(3rd Place*)</i>
s	Design Award		1 st Place	1 st Place (2 nd Place*)	1 st Place 2 nd Place (3 rd Place*)
MCI Awards	Innovate Award	1 st Place (1 MCI award will be given)	1 st Place	1 st Place (2 nd Place*)	1 st Place 2 nd Place (3 rd Place*)
Σ	Control Award		1 st Place	1 st Place (2 nd Place*)	1 st Place 2 nd Place (3 rd Place*)

Table 6-1: Total judged awards available based on all event participating teams

*Discretionary awards

See section <u>13.7 Dual Division Events</u> for the modified dual division version of this rule.





A112 *Judging feedback is provided to all teams. All teams will receive feedback from their judging interview session. The JUDGES complete a form immediately following the interview based on their initial impression of the team. This feedback form is not used during deliberations and does not include any updated feedback based on later interactions by the JUDGES with the team.

The feedback form will either be returned with the PORTFOLIO for in-person judging or the Lead Coach/Mentor 1 will receive access to a digital version following the event in the case of remote judging.

- A113 ***Teams are only eligible to win the Inspire Award in their own region.** Teams are only eligible to be considered for the Inspire Award (1st, 2nd or 3rd place) when competing at a tournament within their own region.
- **A114 *Teams cannot win the Inspire Award at multiple Qualifying or League Tournaments.** Teams are only eligible to win 1st place Inspire Award once per season from any Qualifying or League Tournament. Teams who have won 1st place Inspire may not be considered for 1st, 2nd, or 3rd place Inspire at subsequent Qualifying or League Tournaments.

6.2 Team Judged Award Descriptions

6.2.1 Inspire Award

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 teams, sponsors, their community, and the JUDGES. Working as a unit, this team will have shown success in performing the task of designing and building a ROBOT.

	Inspire Award Criteria		
Required	1	Team must submit a PORTFOLIO. The PORTFOLIO must include engineering content, team information and a team plan. The PORTFOLIO must be high quality, thoughtful, thorough, and concise.	
Required	2	 The Inspire Award celebrates the strongest qualities of all the judged awards. A team must be a strong contender for at least one award in each of the following judged award categories: A. Machine, Creativity, and Innovation Awards, B. Team Attributes Awards, and C. Think Award 	
Required	3	Team judging interview session must be professional and engaging.	
Encouraged	4	The team should be able to discuss, demonstrate, display, document, or otherwise provide more detailed information to support the information in the PORTFOLIO.	

Table 6-2: Inspire Award Criteria





6.2.2 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 PORTFOLIO 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.

The team must share or provide additional detailed information that is helpful for the JUDGES. This could include descriptions of the underlying science and mathematics of the ROBOT design and game strategies, the designs, redesigns, successes, or opportunities for improvement.

Table 6-3: Think Award Criteria

	Think Award Criteria		
Required	1	 Team must submit a PORTFOLIO. The PORTFOLIO must include engineering content including: A. evidence of use of the engineering process, B. lessons learned, C. trade off analysis /cost benefit analysis, and/or D. mathematical analysis used to make design decisions 	
Required	2	Team must be able to speak to the engineering content contained in their PORTFOLIO during the judging interview and/or pit interviews.	
Encouraged	3	 Team PORTFOLIO may include information about technical skill resources including: A. how the team acquire new mentors, B. how the team learns from team mentors, and/or C. development plan for team members to learn new skills 	
Encouraged	4	PORTFOLIO information is organized in a clear and intuitive manner	

6.2.3 Connect Award

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

This judged award is given to the team that 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 actively 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. A PORTFOLIO is not required for this award.

Table 6-4: Connect Award Criteria

Connect Award Criteria			
Required	1	Team must describe, display, or document a team plan that covers the following: A. The team's goals for the development of team member skills, and B. The steps the team has taken or will take to reach those goals	





Connect Award Criteria			
Encouraged	2	Provide clear examples of developing in person or virtual connections with individuals in the engineering, science, or technology community.	
Encouraged	3	Provide clear examples of how it actively engages with the engineering community to help them understand <i>FIRST</i> , the <i>FIRST</i> Tech Challenge, and the team itself.	

6.2.4 Motivate Award

Sparking others to embrace the culture of STEM through FIRST!

This team embraces the culture of *FIRST* and clearly shows what it means to be a team. This team makes a collective effort to make *FIRST* known throughout their school and community and sparks others to embrace *FIRST*'s culture. A PORTFOLIO is not required for this award.

Table 6-5: Motivate Award Criteria

	Motivate Award Criteria		
Required	1	 Team must describe, display, or document an organizational plan including: A. team or organization goals, B. finances and financial sustainability plan, C. risk management planning, D. season timeline project planning, and/or E. outreach and service plan 	
Required	2	Explain the individual contributions of each team member, and how these apply to the overall success of the team.	
Encouraged	3	Is an ambassador for <i>FIRST</i> programs and successfully recruits people who were not already active within the STEM community.	
Encouraged	4	Evidence of using lessons learned from outreach activities to improve future events.	
Encouraged	5	Has a creative approach to materials that market their team and <i>FIRST</i> .	

6.2.5 Innovate Award sponsored by RTX

Bringing great ideas from concept to reality.

The Innovate Award celebrates a team that thinks imaginatively and has the ingenuity, creativity, and inventiveness to make their designs come to life. This judged award is given to the team that has an 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 design element must work consistently, but a ROBOT does not have to work all the time during matches to be considered for this award. A PORTFOLIO is not required for this award.

Table 6-6: Innovate Award Criteria

Innovate Award Criteria		
Required	1	Team must describe, display, or document examples of the team's engineering content that illustrate how the team arrived at their design solution.





	Innovate Award Criteria			
Required	2	ROBOT or ROBOT sub-assembly is creative and unique in its design.		
Required	3	Creative design element must be stable, robust, and contribute positively to the team's game objectives most of the time.		
Encouraged	4	Creative designs often come with additional risks, the team should document or describe how they mitigated that risk.		

6.2.6 Control Award

The Control Award celebrates a team that uses sensors and software to increase the ROBOT'S functionality during gameplay. This award is given to the team that demonstrates innovative thinking to solve game challenges such as autonomous operation, improving mechanical systems with intelligent control, or using sensors to achieve better results. The control component(s) should work consistently during MATCHES. The team's PORTFOLIO must contain a summary of the software, sensors, and mechanical control but would not include copies of the code itself.

Table 6-7: Control Award Criteria

	Control Award Criteria		
Required	1	 Team must submit a PORTFOLIO. The PORTFOLIO must include: A. hardware and/or software control components and systems on the ROBOT, B. which challenges each component or system is intended to solve, and C. how does each component or system work 	
Required	2	Team must use one or more hardware or software solutions to improve ROBOT functionality by using external feedback and control.	
Encouraged	3	Team could describe, display, or document how the solution should consider reliability either through demonstrated effectiveness or identification of how the solution could be improved	
Encouraged	4	Use of the engineering process to develop the control solutions (sensors, hardware and/or algorithms) used on the ROBOT includes lessons learned.	

6.2.7 Design Award

The Design Award celebrates the team that demonstrates industrial design principles, striking a balance between form, function, and aesthetics. The design process used should result in a ROBOT which is durable, efficiently designed, and effectively addresses the game challenge. A PORTFOLIO is not required for this award.

Design Award Criteria			
Required	1	A team must be able to describe or demonstrate how their ROBOT is elegant, efficient (simple/executable), and practical to maintain.	
Required	2	The entire machine design, or the detailed process used to develop the design, is worthy of this recognition, and not just a single component.	

Table 6-8: Design Award Criteria





Design Award Criteria		
Encouraged	3	The ROBOT distinguishes itself from others by its aesthetic and functional design.
Encouraged	4	The basis for the design is well considered (that is inspiration, function, etc.).
Encouraged	5	Design is effective and consistent with team game plan and event strategy.

6.2.8 Judges' Choice Award

This award is optional and not given at all *FIRST* Tech Challenge events.

During the competition, the judging panel may meet a team whose unique efforts, performance, or dynamics merit recognition, but does not fit into any of the existing award categories. To recognize these unique teams, *FIRST* offers a Judges' Choice Award.

The Judges' Choice Award recognizes a team for their outstanding efforts but does not factor into the advancement criteria.

6.3 Tournament ALLIANCE Awards

6.3.1 Winning Alliance Award

This award will be given to the winning ALLIANCE represented in the final MATCH of the playoffs of a singledivision Tournament or Championship event. If the event is a dual-division or multi-division event, there will be Winning Alliance Awards awarded to both the division playoff winner and the event finals playoff winner.

6.3.2 Finalist Alliance Award

This award will be given to the finalist ALLIANCE represented in the final MATCH of the playoffs of a singledivision Tournament or Championship event. If the event is a dual-division or multi-division event this will be awarded to the division playoff finalist and the event finals playoff finalist.

6.4 Individual Awards

6.4.1 Dean's List Award

In an effort to recognize the leadership and dedication of the most outstanding secondary school STUDENTS from *FIRST*, the Kamen family sponsors awards for selected 10th or 11th grade STUDENTS known as the *FIRST* Tech Challenge *FIRST* Dean's List Award.

The STUDENTS who earn *FIRST* Dean's List status as a semi-finalist, finalist or winner, are great examples of current STUDENT leaders who have led their teams and communities to increased awareness for *FIRST* and its mission. It is the goal of *FIRST* that these individuals will continue, post-award, as great leaders, STUDENT alumni, and advocates of *FIRST*.

For more information on the Dean's List Award, and to see past *FIRST* Tech Challenge winners, please visit our website! <u>http://www.firstinspires.org/Robotics/ftc/deans-list</u>

For regions of the world that do not use grade levels such as this to identify years of schooling: This award is intended for STUDENTS who are two (2) to three (3) years away from entering college or university. STUDENTS that would be





attending college or university in the next academic year are not eligible. Mentors will be asked for the year of graduation during the nomination process.

6.4.2 Compass Award

This is an optional award and is only offered at the Regional Championship tournament level of competition. All teams attending *FIRST* Championship will have an opportunity to submit 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 chosen from candidates nominated by *FIRST* Tech Challenge STUDENT team members, via a 40-60 second video submission. The video must highlight how their mentor has helped them become an inspirational team. The video should emphasize what sets the mentor apart.

Table 6-9: Compass Award Criteria

Compass Award Criteria			
Required	1	Team must be able to clearly articulate this mentor's contribution to the team and explain what sets this mentor apart.	
Required	2	 Submission must be in video format and meet the following requirements: A. submitted by the deadline established by the event director or local program delivery partner instructions B. be in one of the following formats: .mp4, .mov, .avi, or .wmv (no links to streaming services will be accepted) C. one video submission per team per event (videos can be updated or changed between events) D. all music must be used with permission from the copywrite owners and be indicated in the video credits 	
		E. videos cannot be longer than 60 seconds, including credits	

Teams are encouraged to review the *FIRST Branding and Style Guidelines* before creating their video.

