



Think Award

Team Number: _____ Team Name: _____ Judge's Name: _____

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 could share or provide additional detailed information that is helpful for the JUDGES.

Think Award		Team submitted a PORTFOLIO					Notes	
		N/A	Beginning	Developing	Accomplished	Exemplary		
Required	1	PORTFOLIO must include engineering content, which includes at least one of the following examples: 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2	Team should be able to discuss, describe, display, or document the engineering content contained in their PORTFOLIO during the formal and pit interviews.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Encouraged	3	Team PORTFOLIO may include information about technical resources, which includes any number of the following examples: 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	4	PORTFOLIO information is organized in a clear and intuitive manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Connect Award

Team Number: _____ Team Name: _____ Judge's Name: _____

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. This team has a team plan and has identified steps to achieve their goals. A PORTFOLIO is not required for this award.

Connect Award		N/A	Beginning	Developing	Accomplished	Exemplary	Notes	
Required	1	Team must describe, display, or document a team plan that covers all of 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2	Provide examples of developing in person or virtual connections with individuals in the engineering, science, or technology community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Encouraged	3	Provide examples of how it actively engages with the engineering community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Motivate Award

Team Number: _____ Team Name: _____ Judge's Name: _____

This team embraces the culture of *FIRST* and 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.

Motivate Award		N/A	Beginning	Developing	Accomplished	Exemplary	Notes	
Required	1	Team must describe, display, or document an organizational plan, which includes at least one of the following examples: A. team or organization goals, B. finances and financial sustainability plan, C. risk management planning, D. season timeline project planning, and/or outreach and service plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2	Discuss, describe, display, or document the individual contributions of each team member, and how these apply to the overall success of the team.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Encouraged	3	Is a ambassador for <i>FIRST</i> programs and successfully recruits people who were not already active within the STEM community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	4	Evidence of using lessons learned from outreach activities to improve future events.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	5	Has a creative approach to materials that market their team and <i>FIRST</i> .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Innovate Award sponsored by RTX

Team Number: _____ Team Name: _____ Judge's Name: _____

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 design, robustness, and creative thinking related to design. This award may address the design of the whole ROBOT or of a MECHANISM attached to the ROBOT and does not have to work all the time during matches to be considered for this award. A PORTFOLIO is not required for this award.

Innovate Award sponsored by RTX		N/A	Beginning	Developing	Accomplished	Exemplary	Notes
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2	ROBOT or ROBOT MECHANISM is creative and unique in its design.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3	Creative design element must be stable, robust, and contribute positively to the team's game objectives most of the time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Encouraged	4	Creative designs often come with additional risks, the team should document or describe how they mitigated that risk.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Control Award

Team Number: _____ Team Name: _____ Judge's Name: _____

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 and solution(s) to solve game challenges such as autonomous operation, improving mechanical systems with intelligent control, or using sensors to achieve better results. The solution(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.

Control Award		Team submitted a PORTFOLIO					Notes	
		N/A	Beginning	Developing	Accomplished	Exemplary		
Required	1	The PORTFOLIO must include all of the following: A. hardware and/or software control COMPONENTS on the ROBOT, B. which challenges each COMPONENT or system is intended to solve, and C. how does each COMPONENT or system work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2	Team must use one or more hardware or software solutions to improve ROBOT functionality by using external feedback and control.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	4	Use of the engineering process to develop the control solutions (sensors, hardware and/or algorithms) used on the ROBOT includes lessons learned.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Design Award

Team Number: _____ Team Name: _____ Judge's Name: _____

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 efficiently designed and effectively addresses the game challenge. A PORTFOLIO is not required for this award.

Design Award			N/A	Beginning	Developing	Accomplished	Exemplary	Notes
Required	1	A team must be able to describe or demonstrate how their ROBOT is elegant, efficient (simple/executable), and practical to maintain.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Encouraged	3	The ROBOT distinguishes itself from others by its aesthetic and functional design.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	4	The basis for the design is well considered (that is inspiration, function, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	5	Design is effective and consistent with team's game plan and/or strategy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	