FLORIDA FTC

2012-2013

TEAM GUIDE TO

JUDGING AND AWARDS

V1.2.1

Contents

Version	Page	Changes	Date
1.2	5	From "…will receive a score of zero…" to "…will be ineligible for…"	2012-09-27

OVERVIEW

The Florida *FIRST* Tech Challenge (FTC) program is piloting a League Play tournament system for FIRST during the 2012 and 2013 seasons in advance of the worldwide rollout of League Play.

Florida FTC teams are divided into groups consisting of 8 to 16 team Leagues. Teams will compete at several League Meets and their League Championship. The team's win-loss-tie record, judging scores, and a judged team-created video determines each team's state ranking. The top twenty-four ranked teams that attended three or more competitions (Meets or League Championships) receive invitations to attend the Florida Championship.

This Guide will help your team understand the elements and process of scoring, ranking and assessment of achievements toward FTC awards

The Team Evaluation Process at Tournaments

The Interview at Meets

At Meets, judges will evaluate teams during the scheduled team interviews. Your team must sign-up for convenient interview time upon arrival. Interview times are available on a first come, first served basis. Your team's mid-season video is not counted as part of the judging at Meets.   Judges will chat with your team for 10 to 15 minutes and they'll cover the following elements:

Creativity	Teamwork
Strategy	Enthusiasm
Design	Communication
Function	Outreach
Design Process	Funding Plan

For details, see **Appendix A** - Judged quality elements and descriptions in the FTC context.

Judges score each element on a scale of 0 to 10, see **APPENDIX C** - Scoring Scale Visualization. The total maximum combined score is 100 points. At the end of the tournament, Judges will rank teams 1, 2, 3, . . . The team's performance report (report card) will be emailed to the team's coach after the event. An online method of access is also in development. Judged awards may also be given for 1st , 2nd and 3rd place during the award ceremony. Finally each team's overall score is recorded, averaged with the team's scores at previous tournaments, and used to help determine their overall state ranking.

Engineering Notebook scores will not count at Meets, but teams are encouraged to bring their engineering notebooks to Meets for an informal review and constructive suggestions from the judges in preparation for their League Championship event.

Takeaways

At ALL Tournaments:

- Team interviews are scheduled.

- Teams select their interview time from a list of available times.

- Judges may also observe Teamwork, Strategy, Functionality, Enthusiasm and GP during match play.

At Meets,

- Placement rank awards are given instead of FTC Awards.

- The Engineering Notebook score is not a factor in team's overall score.

- Judges can review notebooks and give advice to teams.

Tips & Tricks

Having a short (1 or 2 minute) prepared presentation can be beneficial for your team interview. But be sure to leave plenty of time for interaction with the judges. Otherwise the judges may be left with many unanswered questions!

League Championships

At League Championships, team interviews are conducted in the same fashion as at Meets. Judges will be discussing the same quality elements with your team. And as in Meets, the mid-season video is not counted as part of the judging score at League Championships.

The team's individual quality element score averages earned in the interview at this championship event are used to calculate their FTC Award scores for the event. See **APPENDIX D** - Relationship of Quality Elements to Awards. Judges will present the standard FTC Awards during the League Championship award ceremony.

The Engineering Notebook

The League Championship will be your team's first formal evaluation of their Engineering Notebook. The notebooks will be scored on three basic merits:

1) How well the notebook is organized and conforms to the guidelines presented in section 3 of part 1 of the game manual.
2) How well the notebook describes the physical construction of the robot.
3) How the notebook describes the team's game strategy, the design process, brainstorming, research, prototyping, problem identification and solution decisions

Your team's interview and engineering notebook scores will be averaged between all the judges to assure a fair and even overall assessment. This final overall score for the event will be applied to your team's State ranking.

What if the team doesn't have an engineering notebook? There are four awards that, per the game manual, specifically require that teams have an engineering notebook. They are the FTC Inspire, Rockwell Collins Innovate, PTC Design and, of course, the Think Award. A team that does not have an engineering notebook at a championship event will be ineligible for these four awards.

A Note About Your Mid-Season Video

While the mid-season video will not be included in judging at the League Championship, it will be combined with the team's ranking to help determine which teams will advance to the Florida Championship.

Florida Championship

Team Evaluations at the Florida Championship are identical to that of League Championships with the following two exceptions

1) Team's final video is scored for each of the judged elements and factored in with the interview scores to arrive at the final award scores, and

2) There are more teams to be evaluated, so a multi-tier judging approach will likely be used.

The Video Score Factor

The team's final video will be evaluated for content against the same elements the judges look for in the team's interview.

Creativity	Teamwork
Strategy	Enthusiasm
Design	Communication
Function	Outreach
Design Process	Funding Plan

Teams should review the contextual meaning of the elements in Appendix A to be sure they understand what the judges will be considering.

The video counts 25% and the interview counts 75% of the judges final average scores for each element.

Gracious Professionalism (GP)

GP is an optional score adjustment that can be applied at the discretion of each judge at any tournament. Judges may directly add or deduct up to 5 points overall based on their observations. This adjustment also applied directly to the Connect and FTC Inspire Award scores. If a judge applies a GP adjustment, they must include a comment about their observation. As with all other judged scores, each judges GP adjustment is averaged with those of the other judges to assure a fair and even overall assessment . There are more details about this on the last page of Appendix A.

The Team's Tournament Report Card

Each Judge's scores for the quality elements for a team are averaged with those of all the other judges for that team to reach consensus scores. This approach assures a fair and even overall assessment.

At Meets, the averaged element scores are added to reveal the team's overall Judge's score for the tournament. Judges averaged GP Adjustments are also included.

At Championships (League and Florida), the scores for the Engineering Notebook are added to the overall score. Since the maximum results then could be 130, we normalize it to a 0 to 100 scale by multiplying results by 10/13.

Additionally at championships, a weighting matrix is uniformly applied to the quality element scores for each team to reveal the teams' scores for the standard FTC Awards.

After the event the team's performance report (report card) will be emailed to the team's coach. An online method of access is also in development. See **APPENDIX B** - Team Tournament "Report Card" example.

- Each judge's scores per team are averaged together for consensus.

- FTC Award scores are derived automatically from the element scores.

- Performance reports will be made available to teams.

Appendix A - Judged quality elements and descriptions in the FTC context

Judged Element	Description
Creativity	• The team generally has a **creative approach to solving problems**. They give examples of thinking 'outside the box'. • There is one or more **unique elements to the design** not seen on other robots. • The team has developed a creative approach to achieving their game strategy. • The design is creative as some elements are involved in **multiple functions**. (Example: a game piece collector also aligns scoring element.) • The team can describe their achievement of a **creative** software **solution** to a hardware problem or visa-versa.
Strategy	• Team can **describe** their **game strategy** as a **basis of their design**. • The strategy has a **winning objective**, as well as a **supportive role**. • The strategy was designed to work **within the capabilities** of what the team could build. It was **achievable!** • The strategy is **flexible** to work with varied **capabilities of alliance partners**. • The **strategy considers** acquisition of both **Qualifying Points** as well as **Ranking Points**.
Design	• The robot design has **high aesthetic appeal**. Decorative elements look well planned and applied. • The robot has one or more functional **industrial design elements** and team members understand and can describe them. • The robot's design elements and custom **parts fit properly and work well together**. • The team uses **PTC software** (or other **CAD tools**) to aid their **design documentation**. • The team uses **mathematical computations** to assess robot components, properties or functionality **as part of design**.
Function	• The robot's **drive system** stands out in some way AND is **effective** for the team's game strategy. • The design has **unique features** or **combined features** that are **functionally effective** for the team's game strategy. • Robot **functions are easily controllable** by the drive team. • The team needs to make **no changes to the design** on **competition day** for the robot to compete effectively. (Repairs are OK) • The team's robot is **robust**. It operates as intended. **Reliability is very high**. (Few if any breakdowns.)

Judged Element	Description
Development Process	• PTC software (or other) was used to **determine attributes, properties or functionality** of design elements **prior to construction**. • The team expresses **development synergy** between the **robot software** and the **robot hardware.** (No HW/SW finger pointing.) • The team **evaluates performance** and actively **makes adjustments** to the design or construction **to improve results**. • The team **builds models or prototypes** of key elements **prior to construction**. • The team has a **design and build plan** and **schedule.** **Progress is monitored** and **adjustments are made** to achieve their goals.
Teamwork	• The team members **specialize to become experts** in the functions needed by the team. (Design, build, program, drive, outreach, etc.) • 'Expert' team members **mentor or cross-train** other team members to help **avoid 'one member dependency'**. • The team appears to **work well together**. They actively **help one another**. Conflicts seem to be **smoothly resolved**. • Workload is relatively evenly **distributed across all team members**. • Team members **smoothly coordinate** design, build and practice activities with participation and **timing of Meets and Tournaments**.
Enthusiasm	• The team has a **special visual spirit element**, e.g. costumes, banners, mascots, makeup, colors, etc. • The team has a **special cheer or other exciting behavior** that they can demonstrate at the interview and during the tournament. • The team **demonstrates a passion for FIRST** and actively tries to spread their excitement to others throughout their school or community. • The team **extends their enthusiasm to their robot** by including **creative, decorative elements** that reflect the team's spirit. (The robot must still conform to applicable rules).
Communicating	• Team members are **well informed** about **FIRST**, **FTC** and other **FIRST programs**. They are **excited to talk** with anyone who will listen. • Team members **speak clearly** about their ideas, design, plans, strategies, and activities **to others**. • Team members **communicate well** with **each other** and with **other teams** during the tournament • The team has actively worked to **help "quiet" team members** learn to graciously **express themselves** to others. • Team **uses media** (e.g. **website, social, video, print, etc.**) to actively promote their activities, those of other teams, FTC, and FIRST.

Judged Element	Description
Outreach	• Team taps **experienced professionals** from sources **outside the team** as resources for **expanding their knowledge and skills**. • The team undertakes **physical activities** to make FIRST known **within as well as outside** of their host organization. • The team **reaches out** into the community and **seeks opportunities** to **improve their community** or **help others** in need. • The team describes how they **collaborate** on **community outreach** and **other activities** with **other teams or FIRST programs.** • Team **members volunteer to help at FTC meets** and **other FIRST Programs** besides those in which their team is competing.
Funding Plan	• The team has a **documented fund raising plan**. They **monitor** fund-raising **and modify the plan** in response to the level of success. • The team has assembled a **diverse set of funding sources**. • The team **tracks their expenditures** (parts, travel, etc.) and **modifies** spending **as needed**. They make **good business decisions**. • The team has a **special method of fund raising** attempted by few other teams, if any. • Team is **on track for achieving** their **fund raising goals** by the end of the season, **or has already achieved** their fund raising goals.
Engineering Notebook **Organized per guidelines**	• The Engineering Notebook is well organized and follows the proper format. • The guidelines presented in the game manual have been taken seriously and the team has made an extensive effort to make their notebook conform to those guidelines.
Engineering Notebook **Descriptive clarity**	• The Engineering Notebook clearly describes the physical construction of the robot. • Includes CAD drawings or neat hand drawn illustrations of major components and design elements. - Could someone build the same or similar robot from the description in the engineering notebook alone?
Engineering Notebook Strategy, objectives and creative process	• The Engineering Notebook describes team game strategy, objectives, and the reasoning behind their design. • The Engineering Notebook content reflects the creative design process o Identifying the problem, research, brainstorming, choosing the best solution, prototyping and testing.

Judged Element	Description

GP Adjustment	**Gracious Professionalism Adjustment (Optional). ALL GP POINT ADJUSTMENTS REQUIRE A JUDGE'S COMMENT**
	
	Judges may directly <u>add</u> or <u>deduct</u> up to five points based on observation of the team's conduct.
	This is a purely subjective area and at each judge's discretion, but here are some helpful guidelines:
	A team exhibiting
	• Stellar gracious professionalism might qualify for as much as a 5-point bonus.
	    - Stellar GP is exhibited when a team takes actions to the benefit of others at great sacrifice to their own chances for success.
	• Noble actions, perhaps a 2-point bonus.
	    - Noble actions would be those which benefit others with a minor chance of affecting their own team's success.
	• Expected actions may qualify for 1 point.
	    - These are actions that benefit others without unnecessary risk or burden to the team.
	    - For example, loaning a part to a team not affiliated with their own host school or organization.
	
	• Ungracious, unprofessional behavior:
	    - Point deductions (from 1 to 5 pts) are at the discretion of the judge based on observations of ungracious, unprofessional behavior.

APPENDIX B - Team Tournament "Report Card" example

Event:	RoboBlast
When:	11/12/2012
Where:	Junior's Garage
Type:	Championship
1231	**Mega Monsters**

Mega Monsters

Team Number --->	1231	1231
Creativity	9.6	/ The gripper is a nice idea! / / /
Strategy	8.2	/ / / /
Design	7.2	/ / / /
Function	7.6	/ / / /
Design Process	6.6	/ / / /
Teamwork	5.6	/ / / /
Enthusiasm	3.6	/ C'mon guys, smile. Get Excited! / We know you're having fun. Let's show it!!! / /
Communicate	4.4	/ / / /
Outreach	3.2	/ / / /
Funding Plan	9.4	/ / / /
Notebook Organized per guidelines	9	/ Notebook is well organized. / / /
Notebook Descriptive clarity	8.8	/ Team's construction approach is good. Can you include more pictures? / / /
Notebook Strategy, objectives and creative process	9	/ See if you can get some CAD design screen shots. / / /
GP Adjustment	0	/ / / /
Judges Tournament Score:	70.9	/ / / /

Equivalent Award Points	INNOVATE:	83.20
	DESIGN:	76.20
	CONNECT:	46.10
	MOTIVATE:	39.80
	THINK:	89.34
	INSPIRE:	72.16

APPENDIX C - Scoring Scale Visualization

This is a visualization of the 0 to 10 scoring scale. This is provided to emphasize the difference from the scale used last season wherein a 50-100 grade scale was used. Below we see that a medium score will be 5.

APPENDIX D - Relationship of Quality Elements to Awards

Ten different team qualities observed and their relationship to the various FTC Awards.

Mapping of Assessment Elements to FTC Awards

Formal, scheduled interview

Assessment Qualities scored on a scale of 0 to 10. Decimals will be allowed.

The Team Video is scored using the same criteria as the interview!

Applicable weights of elements to awards are defined, constant and uniformly applied.

Awards not distributed at Meets. Award score "report card" is given to teams along with any judges advice or comments.

Notebook assessed for League and State Championship Only. Informal notebook assessment is offered at Meets.

Applies to award scores at championships only.

At judges discretion based on observations.

INTERVIEW

Creativity 0 to 10
Strategy 0 to 10
Design 0 to 10
Design Process 0 to 10
Functionality 0 to 10
Teamwork 0 to 10
Enthusiasm 0 to 10
Communicating 0 to 10
Outreach 0 to 10
Funding Plan 0 to 10

Total Overall Rank Score 0 to 100

AWARDS

Think
Innovate
Design
Inspire
Motivate
Connect

NOTEBOOK

Organized per guidelines
Descriptive clarity
Creative process

No Engineering Notebook Disqualification

**+ or −
ADJUSTMENTS**

Gracious Professionalism -5 to +5

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