2015-2016
Team Guide to Judging and Awards
Florida Region

V3.0

Florida FTC - We're in a League of our own!

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Revision History

Version	Date	Description
1.0	October 1, 2012	Initial Release
2.0	September 17, 2013	2013-2014 Season changes. Every major section updated.
2.1	August 11,2014	Updated references to game manual sections.
3.0	September 12,2015	Updated for 2015-2016 game season

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Overview

The Florida *FIRST* Tech Challenge® (FTC®) program is participating in a League Play tournament system for *FIRST*® during the 2015-2016 season.

In the League Play model, Florida FTC teams are grouped into Leagues. Leagues will run several league Meets and a League Championship. Due to facility space and event time limitations, leagues may set the participation capacity at an event to between 12 and 18 teams (sometimes more), so registering for events early is important. If a league has more registered teams than the maximum capacity of their League Championship, then teams with the highest ranking scores within their league will receive invitations to the League Championship[1]. The ranking scores within the league are determined by the average win-loss-tie record for Meets, combined with the judging scores for the team video.

Each team's state ranking will be determined by their Meet and League Championship win-loss-tie record, judging scores, engineering notebook score and their team-created video score. The top twenty-four state ranked teams that attended two or more competitions (Meets plus League Championship) receive invitations to attend the Florida Championship.

There is an exciting addition to the judging process this year that is intended to help make more efficient use of time at Meets and League Championships - "*Judgment Day*"! Judgement Day can be implemented at a league's option instead of holding judging interviews during the league championship event. Judgment Day events will eliminate the tenuous scheduling of team interviews during the match play which may result in delays in match schedules, teams rushing through an interview, or delays in starting the closing ceremony.

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

Takeaways

- Team participation at league events is normally set between 12 minimum and 18 maximum.
- In leagues that have more teams than the capacity of their championship event can handle, the teams with the highest ranking scores within the league will be invited to the League Championship event.
- Leagues may, at their discretion, choose to run a Judgment Day as a part of the League Championship event.

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[1] League committees can request an exception to the event capacity limits from the Florida Affiliate Partner. In such cases, the leagues are cautioned about negative effect on event length and quality. Also, leagues can opt to hold a second league championship for teams not not scoring high enough to attend the first one.

Judging at Meets

No more scored interviews with judges at Meets. Yay! BUT, a team presentation at the league championship will be a major factor in a team's state ranking, so your team is strongly encouraged to give a practice presentation to judges at Meets, or to your mentors or coaches, and request their helpful advice for improvements prior to the real thing at your league championship event. Really, take this seriously.

Engineering Notebooks will be reviewed and scored at Meets. The team with the highest Engineering Notebook score will receive the FTC Think Award – the only FTC judged award to be presented at the Meet closing ceremony!

The notebooks will be scored on four basic elements:

1) **General:** How well the notebook is organized and conforms to the guidelines presented in the Game Manual part 1, section 7.3
2) **Engineering Section:** How clearly the notebook describes the details of the robots design and construction.
3) **Team Section:** How the notebook describes the team, their outreach activities.
4) **Business, Strategy, or Sustainability Plan:** overall budget, financial goals and the steps they will take to reach those goals. Presents current expenditures and expected future expenditures.

There are some additional requirements of the engineering notebook that apply to other awards too. Read section 7.3.5 of the Game Manual for those nuggets of information.

Each of the 4 elements above will be scored on a scale of 0 to 10 for a total maximum raw score of 40. At Meets, the total is then normalized to a range of 0 to 100 in order to provide a more familiar scale.

The team's performance report (report card) for the Engineering Notebook evaluation will be emailed to the team's coach after the event.

Takeaways

- Engineering Notebook will be formally judged at Meet tournaments.

- The Think Award is the only FTC award presented at Meets.

- The Think Award is presented to the team with the highest Engineering Notebook score.

- The Engineering Notebook at Meets will not be factored into the teams state ranking. (But the Engineering Notebook score received at League Championship will factor into the teams state ranking.)

Tips and Tricks

- Pay very close attention to the Game Manual part 1, section 7, as well as the Engineering Notebook elements of the other awards described in section 7.3.5. Seriously!

Judging at League Championships

Judging at the League Championship

Judging at a League Championship event will include team interviews and presentations, Engineering Notebook evaluations and match play observations. As many presentations/interviews as possible will be scheduled to take place prior to opening ceremony, and any follow up interviews may need to be interleaved between scheduled matches.

Judgment Day (optional by league)

A Judgment Day is an optional _component_ of a League Championship. Leagues may opt to run a Judgment Day based on availability of volunteers and a suitable place. Judgment Day is designed to ease the burden on teams, judges, volunteers and match play at the League Championship by deferring the team presentations and interviews with judges to another day prior to the championship event. Judgment Day should happen about a week before the League Championship. Teams arrive at the event at their scheduled time of the day, give their presentation to the judges and answer a few questions. The team then proceeds to a regulation FTC match play field where they have the opportunity to present and demonstrate their robot and all its capabilities and functions to another panel of judges, unencumbered by the stress and random events of an actual competition match. Essentially the team will have about 12 minutes to show off their robot in its best form. Once they are finished, the team is free to leave. The whole experience for a team at Judgment Day would last around an hour.

Interestingly, the Engineering Notebook is _not_ scored at Judgment Day, but rather later at the League Championship.

The results of Judgment Day scoring will be saved and then combined with the team's Engineering Notebook score at their League Championship event about a week later. The combined Judgment Day scores, Engineering Notebook scores and judges observations result in identifying the teams who will receive the seven different FTC awards. Results also are a component (25%) of the team's overall state ranking.

Takeaways

At League Championships:

- In leagues without Judgment Day, team interviews are scheduled prior to opening ceremony.
  - Teams should be prepared for possible follow-on interviews during match play.
- Engineering Notebooks are always scored at the League Championship.

At Judgment Day

- Judgment Day event is optional at the League's discretion.
- Team arrival times are prearranged.
- Teams give their presentation, answer judges' questions, and demonstrate their robot on a field.
- Teams are free to leave when finished. Should take about an hour.
- Engineering Notebooks are not graded at Judgment Day.

So how *are* Teams Evaluated at the Judgment Day and League Championship?

Team Presentation

Whether at **Judgment Day or at the League Championship**, teams are encouraged present their story to the judge panel as opposed to just waiting for a judge to ask questions. The judges will no doubt ask a few questions, but the bulk of the time with the judges should be consumed with the team explaining the details of their team, robot development journey and their accomplishments. To understand what content should be in your presentation, it's helpful to understand the qualities judges look for. These qualities are essentially divided into 10 elements.

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

As they listen to your story and responses to any questions, judges rate each of these Quality Elements for a team on a scale of 1 to 10, for a total of 100 points. A description of each of these elements can be found at the end of this document in Appendix A. Understanding the meaning of each of these elements should tell a team exactly what to show and tell the judges and how to score highly. Great teams will read Appendix A.

Engineering Notebook

See the Judging at Meets section for a description of how the notebooks are evaluated. It's the same at the League Championship. Also, all FTC awards except MOTIVATE now require that an Engineering Notebook be submitted.

Award Scores

The team's individual quality element score averages earned in the interview at this championship event are used to calculate their FTC Award scores. See **Appendix B** – Relationship of Quality Elements to Awards. Judges will present the FTC Awards during the League Championship award ceremony. Descriptions of the FTC Awards are contained in the Game Manual Part 1, section 7.5.

State Ranking

Each team's total overall score becomes a component (25%) of the team's overall state ranking. The other state ranking components are the team video (25%) and the teams average Qualifying Points from Meets and the League Championship match performance (50%).

Takeaways

- There are serious penalties for not having an Engineering Notebook (disqualified from most awards).
- Team's overall judging score will apply to their State ranking.
- Standard FTC Awards will be given at League Championships.
- The team created video is not judged at the League Championship, but is required for advancement to the Florida Championship.

Tips and Tricks

- A good 5 to 8 minute prepared presentation can be very beneficial for your team interview. Interviews are about 12 to 15 minutes long, so be sure to leave time after your presentation for interaction with the judges. Otherwise the judges may be left with many unanswered questions!
- You are "on stage" from the moment you arrive at an event. Consider judges are always observing teams and may be anywhere, not just in the interview room.
- Match Observation Judges are especially tuned in to team interactions other teams, other team members, and volunteers.
- Never feel that once your interview is over you are no longer being judged.
- Bring the robot to the interview session.

Your Team Video

The Team Video will not be a factor in determining award scores at the League Championship. It will, however, play a big part in your teams state ranking. The video score will be combined with your team's average Qualifying Points and overall Judges Score to determine your team's state ranking, and which teams advance to the Florida Championship. To be eligible, a link to your team video must be submitted to the online Video Tracking System by the published deadline.

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

- Creativity
- Strategy
- Design
- Function
- Design Process

- Teamwork
- Enthusiasm
- Communication
- Outreach
- Funding Plan

Takeaways

Team Videos:

- directly affect your state ranking,
- do not affect your award scores at your league championship event,
- are evaluated against the same quality elements considered for team interviews / presentations,
- have original content,
- must be submitted by the published deadline,
- are limited to 3 minutes in length.

Armed with this foresight, your team can focus on filling those 3 valuable minutes with your team's story while hitting each of those quality elements along the way. It seems like a short period of time, but you can say a lot in 3 minutes, and in an entertaining and engaging way as well.

Here are some tips:

- Don't have a creative videographer on your team? Consider recruiting a new team member who likes videography and who can focus their effort on making a great video!
- Consider short "chapters" focusing on each quality element, or combine quality element chapters for a creative and informative mix.
- Always keep in mind and in focus who your main audience will be – Judges! Entertaining other viewers is merely a fun side benefit.
- Don't exceed the video length time limit (3 minutes.)
- As helpful examples, here are a few links to some videos that scored well last season. Remember, limit your to 3 minutes!
  - http://goo.gl/4KQ4HI
  - https://goo.gl/0kePXR
  - https://goo.gl/VQVhLe
  - https://goo.gl/z2Oyy2

  Again, keep your Team Video to 3 minutes.

Finally, make sure the contents of your video are created by your team and for your team. Some schools have more than one team. Sharing of content between team videos is generally not a good thing to do. Judges look for original content from each team, not shared content!

Optional Compass and Promote Videos

The Promote and Compass Award videos are optional to produce at the team's discretion. They are optional awards also at each league's discretion, so be sure to check with your league before expending the effort if you should choose to do so. Creating either or both of these videos will not in any way directly affect a team's state ranking score. They could however (may or may not) have some *indirect* effect on some of the team's quality element scores, like outreach or teamwork, at the discretion of the judges. Finally, these two videos are only applicable at the league and state championship level. They are not applicable at Meets.

Promote Award

This optional 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.

Guidelines for the Promote Award:
- Team must present a thoughtful and high-quality,1-minute video which appeals to the general public and is based on this season's theme: "Now that I've succeeded in FIRST….".
- Strong production value is important, but the message and impact of the video are of greater weight for the judges.
- Creativity in interpreting the annually assigned theme is desired.
- Submissions for this award will be considered for the Inspire Award but are not required.
- Team must have rights to any music used in the video.

For further details, please see the Game Manual, part 1, section 7.5.8.

Compass Award

The Compass Award recognizes an adult Coach or Mentor who has provided outstanding guidance and support for a team throughout the year.

Guidelines for the Compass Award:
- Only one 40-60 second (no longer) video submission per team will be considered. Teams may submit new or updated videos at each tournament.
- The video must be submitted at least two weeks prior to tournament day. Deadlines for submitting videos may vary from tournament to tournament. Please check with your tournament's organizer for details.
- Videos must be uploaded to YouTube or a similar public video sharing site and the link submitted to the Florida FTC Video Tracking System on the www.flfirst.org website.
- Team must have rights to any music used on the video.
- Team must submit an Engineering Notebook!

Takeaways

- These two awards are optional per league.
- These awards will be offered at the state championship.
- The two videos are optional for the teams to produce.
- Promote Award is based on a 1-minute team produced "public service announcement" video.
- Compass Award is based on a 40 to 60 second video recognizing an outstanding coach or mentor.
- Videos must be submitted at least 2 weeks prior to the league or state championship.
- Videos must be uploaded to YouTube or a similar public video sharing site and the link submitted to the Florida FTC Video Tracking System on the www.flfirst.org website.

Tips and Tricks

- For the Promote video, production quality really counts!
- If your team is invited to the Florida Championship, you may update your original video(s) or create new one(s).
- Use the highest quality video resolution that you have available.

Judging at the Florida Championship

Team Evaluations by judges at the Florida Championship are performed using the same Quality Elements and scale as that of League Championships with the following exceptions: there are more teams to be evaluated, so a multi-panel, multi-tier judging approach may be used if needed.

If the facilities are available on the day before the event, teams will be given the option to sign up for a Florida Championship Judgment day interview/presentation time slot. Teams that can arrange to arrive that Friday will have the benefit of a less stressful interview/presentation period. They can give their presentation, answer a few judges questions and show their robot in the judging room. They will not need to demonstrate their robot on a field however. 20-minute time slots will be available starting around noon the day before the event to accommodate as many teams as conveniently possible. If this option becomes available, teams are highly encouraged to take advantage of this opportunity.

On the day of the Florida Championship, the remaining teams that have not been interviewed can give their presentations and be interviewed by judges prior to the opening ceremony.

The team-optional Promote and Compass award videos must be submitted by the published deadline.

If your team is invited to attend the Florida Championship, then your team video has done its job! The video score counted 25% of your overall state ranking. Moving forward, the video will not be needed to determine the award winners at the event.

Takeaways

At the State Championship:

- Standard FTC Awards as well as the Control Award will be given.
- The Engineering Notebook will be scored.
- No team videos needed for the normal FTC Awards.
- Teams may optionally submit videos for to compete for the Promote and Compass Awards.

Gracious Professionalism

Overview

Dr. Woodie Flowers, National Advisor for *FIRST*, speaks about Gracious Professionalism[TM] in this way: "The *FIRST* spirit encourages doing high-quality, well informed work in a manner that leaves everyone feeling valued. Gracious Professionalism seems to be a good descriptor for part of the ethos of *FIRST*. It is part of what makes *FIRST* different and wonderful."

Gracious Professionalism can and should mean different tings to each of us. It is possible however, to outline some of its meanings:

- Gracious attitudes and behaviors are 'win-win.'
- Gracious folks respect others and let that respect show in their actions.
- Gracious professionals make a valued contribution in a manner pleasing to others and to themselves as they possess special knowledge and are trusted by society to use that knowledge responsibly.

As Woodie says, "In *FIRST*, Gracious Professionalism means that we learn and compete like crazy, but treat on anther with respect and kindness in the process. We try to avoid leaving anyone feeling like they have lost. No chest-thumping barbarian tough talk, but no sticky sweet platitudes either. Knowledge, pride and empathy comfortably blended."[1]

Gracious Professionalism and the Team's Score

Gracious Professionalism (GP) is an <u>optional</u> 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 each of the FTC 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**, (page 12).

In the event that a team performs an egregious act of ungracious, unprofessional behavior, the judges may disqualify that team from winning any judged awards at the event regardless of the judging scores they have earned.

The following table is the guide that judges use to help understand the meaning and intent of each Quality Element (QE) within the context of the Florida FTC judging system. This is intended to help keep all the judges calibrated with each other.   **HOT TIP:** Teams can use this to understand what the judges look for when scoring the team's QEs.

Quality	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 robot control** and achievement of their game strategy. • The design is creative as **some elements perform multiple functions**. (e.g. 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 both a **scoring objective and an alliance 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. Robot has a **clean or distinctive look**. • The robot has one or more **functional industrial design elements** and team members understand and can describe them. (E.g. scissor lift, conveyor belt, linear leadscrew, or other elements that produce repeatable functionality.) • The robot's design elements and custom **parts fit properly and work well together**. • The team uses **CAD tools** or **neat hand drawn illustrations** 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 robot has **functional features (including sensors or other kinds of control components)** or combined features that enhance functionality. • 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 break downs.)

Development Process	• The team used CAD software 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 a**ctively 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 trys 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 all 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.
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 **documented their business, funding, or strategic plan** in their engineering notebook. • The team has **multiple and/or creative funding sources** (disregard if their school doesn't allow other funding sources.) • The team **tracks their expenditures** (parts, travel, etc.) and **modifies spending** as needed. • The team's plan includes **goals** and **specific steps to achieving their goals**. • The team is **on track for achieving their fundraising goals.**
Notebook General	Note: Per the Game Manual part 1, section 7.3.3, **no distinction will be made between handwritten and electronic Engineering Notebooks during judging.** • **Team Number and Team Name** MUST appear on the **outside**. • Includes a "**Summary Page**" attached to the cover. Includes highlights of the Team's season. Point Judges to pages in the Notebook that the Team would most like the Judges to consider. • Notebook has a clearly marked **Engineering Section, Team Section** and **Business Plan (** or **Strategic Plan** or **Financial Plan)**. • **Well organized** so an outsider would understand it. **Fresh page for every meeting**, including **Tasks and Reflections**. • **Both sides of pages** should be used. **Single line** through any errors. Blank **spaces X'd out**. All pages **signed/dated**. Use **permanent Ink**, not pencil.
Notebook Engineering Section	• This section **clearly describes the details** of the robots design and construction. • Includes **CAD drawings** or **neat hand drawn illustrations** of detailed robot design. • Should be **chronological order** (in daily entries), not in a separate section. • Clearly demonstrates the team's understanding of the **creative design process**. Pictures, drawings, and details at **all stages of design**. • Team **game strategy** and the reasoning behind their design **should be clearly documented**. • **Control Components** (sensors, etc.) must be clearly documented. • Team should **tab or flag pages** that support **entries noted in the Summary Page**. • **Any ideas adapted** from an outside source should include a **notation citing the original source**.
Documented Design Process?	This is a **YES** or **NO** question. Documenting the design process is required for the **Innovate Award**. (Game Manual section 7.3.5)
Documented Control components?	This is a **YES** or **NO** question. Documenting the Control Components is required for the **Control Award**. (Game Manual section 7.3.5)
Includes Robot Design Drawings?	This is a **YES** or **NO** question. Robot Design drawings are required for the **Design Award**. (Game Manual section 7.3.5)
Notebook Team Section	• Team Section includes an introduction to each <u>team member</u> and <u>mentor</u>. Includes name, age or school year, interests, reason for joining the FTC team. • Team Section includes **details of team's Outreach activities**. (See the Outreach quality element description.)

Notebook Business Plan Section	**Business, Strategic Plan, or Sustainability Plan:** • Identifies team's overall budget, financial goals and the steps they will take to reach those goals. • Includes current fundraising progress if fundraising is allowed by their school or organization. • Presents current expenditures and expected future expenditures.
Plan includes goals?	This is a **YES** or **NO** question. To be eligible for the Connect Award, plan goals are required to be in the business plan section. (Game Manual section 7.3.5)
Plan includes Steps to achieve goals?	This is a **YES** or **NO** question. In addition to having goals, to be eligible for the Connect Award the plan must include some description of how the team plans to achieve the goals. (Game Manual section 7.3.5)

GP Adjustment	**Gracious Professionalism Adjustment (Optional)**
	Judges may directly <u>add</u> or <u>deduct</u> up to five points based on observation of the team's conduct.
	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 descresion of the judge based on direct observation of ungracious, unprofessional behavior.
	Final GP adjustment is the average applied by all judges at the event.

Mapping of Quality Elements to FTC Awards