MODULE 7

MODULE OVERVIEW

MODULE NUMBER: 7   DURATION: 2 hours

SUMMARY

In this module, the team will finalize and practice their Project presentation, and decide who they want to share their solution with. They will also continue improving the Robot, and practice talking about their Robot design process in preparation for the Robot Judging session.

Core Values to Focus on in This Module

- **Impact:** *We apply what we learn to improve our world.*

OUTCOMES:

Educational standards alignments can be found at
http://www.firstinspires.org/resource-library/fll/standard-alignment-map
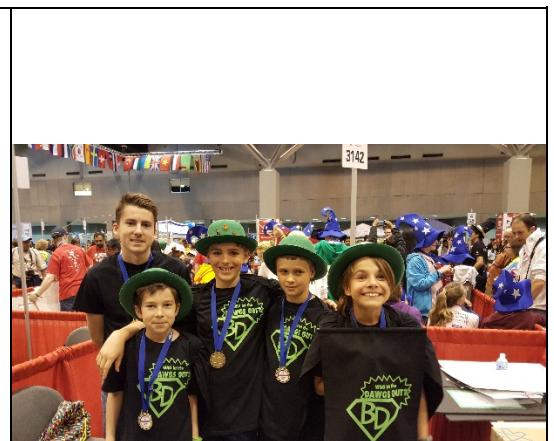
MATERIALS

1. *FIRST*® LEGO® League Challenge Set
2. Whiteboard or other writing surface
3. Pencil/Pens/whiteboard markers
4. Computer or tablet to program the robot
5. Printed Field Research handouts

Note from An Experienced Coach:

When practicing for the Robot Judging sessions, do your best to simulate the tournament environment. Have them run a program and describe what the robot is doing. Encourage them to talk about what is happening, how things work, what led them to try a particular strategy, and the process they went through of getting the robot to work. Encourage them to think of it like a conversation. Elaborate and try to build off of previous topics to keep the flow going. If you run out of things to talk about on one topic, offer to run another program for the judges and continue to describe what the robot is doing. If you keep building off of previous topics, you will be able to get more information across to the judges. You might have the team decide in advance who will answer questions on certain topics. That way, they can practice sharing various points, highlights, and stories from the season.

William Shaver

INSPIRATION

SUGGESTED TIME: 15 minutes

Doctor, Doctor!

<u>Goal</u>: Get the team untangled.
<u>How to play:</u>
1. Have each member stick out his or her right hand and grab the hand of someone else on the team.
2. Repeat with the left hand.
3. Without letting go of anyone's hand, the team should try to untangle itself in five minutes or less.

Discussion
Ask the team the following questions:
1. How did you work together?
2. Did team members have differing ideas of how to get untangled? If so, what did you do?
3. How can we display Gracious Professionalism® at the tournament?
4. How can we display Coopertition® at the tournament?

Gracious Professionalism®

Gracious Professionalism is part of the ethos of *FIRST*. It's a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community.

With *Gracious Professionalism*, fierce competition and mutual gain are not separate notions. Gracious professionals learn and compete like crazy, but treat one another with respect and kindness in the process. They avoid treating anyone like losers. No chest thumping tough talk, but no sticky-sweet platitudes either. Knowledge, competition, and empathy are comfortably blended.

In the long run, *Gracious Professionalism* is part of pursuing a meaningful life. One can add to society and enjoy the satisfaction of knowing one has acted with integrity and sensitivity.

https://www.youtube.com/watch?v=h2e6gxczMxc

Coopertition®

Coopertition produces innovation. At *FIRST®*, *Coopertition* is displaying unqualified kindness and respect in the face of fierce competition. *Coopertition* is founded on the concept and a philosophy that teams can and should help and cooperate with each other even as they compete.

Coopertition involves learning from teammates. It is teaching teammates. It is learning from Mentors. And it is managing and being managed. *Coopertition* means competing always, but assisting and enabling others when you can.

PROJECT
SUGGESTED TIME: 45 minutes

1. Finalize the Project Presentation
In the Field Research for the last module, the team worked on their assigned portions of the presentation. Now it's time to bring them all together and finalize the presentation.

1. Have the team gather all the pieces from each member and make any final changes to the presentation script.
2. Do a timed read-through to see if you are under the five-minute limit. If not, have the kids decide what changes need to be made.

HINT:
Decide whether the team members will memorize the script or if they will use cue cards.

HINT:
It is okay if the presentation is slightly under five minutes, but it absolutely cannot go over five minutes. Many judges will stop the team when the time reaches five minutes.

2. Practice the Project Presentation
Now the team needs to practice the presentation! Run through the presentation several times, timing it each run through.

3. Make plans to share your solution
In the Field Research for the last module, the team members came up with a person or group who may benefit from hearing about their project.

1. Ask each team member to share their person or group with the team.
2. As a team, decide who you would like to share your project with. It can be as many people or groups as you want.
3. Make plans to share your project with these people or group(s). The team can share by:
   1. Meeting in person
   2. Email
   3. Phone
   4. Skype

HINT:
The coach or a designated parent should set up the meeting.

HINT:
If possible, share your project in person. This allows the team to practice their presentation and answer questions in front of a live audience.

4. Make a Project handout for the Judges

1. Refer back to the Project Judging rubric.
2. Use these sections to create a Project handout for the judges.
3. Create a section in the handout for each of the rubric sections. This can be the same information that is in your presentation.
4. Create a list of any and all references and sources you used throughout the Project and include it at the end of your handout or any visual aids used in your presentation.
5. Include interviews you conducted, books or articles you read, and websites you consulted.

> **HINT:**
> You can create anything from a one page handout to a multi-page report, but know that if there is too much information, the judges won't have time to read it all.

> **HINT:**
> Make sure the kids do the work!

> **HINT:**
> You can use the same information in the handout and create a larger trifold for use during the presentation.

LEARNING RESOURCES

- *FIRST*® LEGO® League Challenge Guide
- Judging Rubric

ROBOT

SUGGESTED TIME: 40 minutes

ROBOT TIPS

1. Continue programming and increasing accuracy and consistency.

> 💡 **HINT:**
> Use the comment block to add comments in the code to help people reading your code understand what it does. Comments are not executed by the robot.

2. Prepare for the Robot Judging Session

1. Read the Robot Judging Rubric.
2. Make a list of how your robot addresses each of the rubric items.
3. Ask the team members questions about the rubric items as they run the robot to help them learn to articulate their design process.
4. Do a practice judging session with the team. Have the team walk in and introduce themselves. Have the team practice running one or two of their programs and describe to you what the robot is doing. Ask the team questions, addressing each point in the judging rubric.

> 💡 **HINT:**
> Do this several times to help the team members remember their talking points when they go into the judging room.

> 💡 **HINT:**
> Some regions require a Robot Design Executive Summary. Contact your local tournament director or representative to find out if your region requires it. If you need to create a Robot Design Executive Summary, see the document at the link below to find out how to create it. http://fll.larobotics.org/resources/Robot_Design_Executive_Summay_LA.pdf

LEARNING RESOURCES

- LEGO.com has links to the EV3 Mindstorm user community, apps for learning programming, and a variety of videos, galleries and games that can provide inspiration.
- The LEGO MINDSTORMS Education EV3 Software (that you use to program the robot) also has many programming tutorials that will be useful to the team.
- A comprehensive approach to robot design and programming with lessons categorized as Beginner, Intermediate and Advanced is available at EV3Lessons.com.

1. Check the Timeline

1. Have the team check the timeline they created last practice.
2. If they are on schedule, congratulate them!
3. If they are a little behind, ask them what they can do to catch up.

2. Recap

Review what the team accomplished in this module. The team:

1. Made plans to share their Project with others.
2. Practiced their Project presentation.
3. Improved the Robot.
4. Made a Robot Handout for the judges.

3. Reflect

Ask the team:
1. How prepared do you feel for the presentation?
2. If we don't feel prepared, what can we do to be more prepared?
3. How close is our robot to being competition ready?
4. What can we do to complete the robot?

4. Give the students the Field Research for this week.

FIELD RESEARCH

Before the next module, team members should use the attached handout to do the following activities:

Project
- If your team has decided to memorize the presentation script, memorize your part.
- Read or recite your part of the presentation with a friend or family member who can read the other parts.

Robot
1. Think about a story of when something wasn't working or something went wrong, and write down how you fixed it.

Project

1. If your team has decided to memorize the presentation script, memorize your part.

2. Read or recite your part of the presentation with a friend or family member who can read the other parts.

Robot

1. Think about a story of when something wasn't working or something went wrong, and write down how you fixed it.

OTHER TASKS & TIPS

TASKS

1. Setup a time for your team to share their Project with the designated person(s) or group(s).
2. Communicate with the parents about the tournament details, including transportation, time, etc.

TIPS

1. Some teams make small trinkets or handouts related to their team's Project or team identity to share with other teams at the tournament. They are absolutely **NOT** required, but can be a fun addition if you have the time and resources.

NEXT TIME

In the next module, the team will make preparations for presenting and competing at their first tournament. It's almost here!

Make sure that before you come to the next meeting you have reviewed *Module 8* thoroughly.