

Session 7



Create
Solutions
FIRST ENERGIZESM

PRESENTED BY Qualcomm

Session Overview

Outcomes

- The team will create their project solution and complete the Innovation Project Planning page.
- The team will design and create a robot to complete Robot Game missions.

Session 7
Create
Solutions

Introduction
(10-15 minutes)

*Gracious
Professionalism®
Examples*

Team Tasks
(100-120 minutes)

Solve Missions

**Develop Project
Solution**

Share
(10-15 minutes)

Share

Introduction

- Think about **Gracious Professionalism®**.
- Write ways your team will demonstrate this in everything you do.

Session 7

Gracious Professionalism: We show high-quality work, highlight the value of others, and respect individuals and the community.



Introduction

- Look over page 6 in the *Robot Game Rulebook* to see how *Gracious Professionalism*® is evaluated during the tournament.

Gracious Professionalism®

Gracious Professionalism displayed at the robot game table

Referees will evaluate *Gracious Professionalism* for every team at each one of their matches.

The *Gracious Professionalism* points will be added to the points scored on the Core Values rubric during the judging session and will make up a portion of the total Core Values score.

It will be assumed that every team will start with *Gracious Professionalism* that is **ACCOMPLISHED** (3 points). If a referee observes behavior that is above and beyond what is expected, they will score the team's *Gracious Professionalism* as **EXCEEDS** (4 points). Equally, if a team's behavior shows that their *Gracious Professionalism* is still evolving, they will be scored as **DEVELOPING** (2 points).

DEVELOPING	ACCOMPLISHED	EXCEEDS
2	3	4

If a team does not show for their match, they will score no points for *Gracious Professionalism*. However, if a team arrives and does not run the robot but does explain what has happened, they can get a

Gracious Professionalism score of 2, 3, or 4 points depending on the *Gracious Professionalism* they demonstrate.

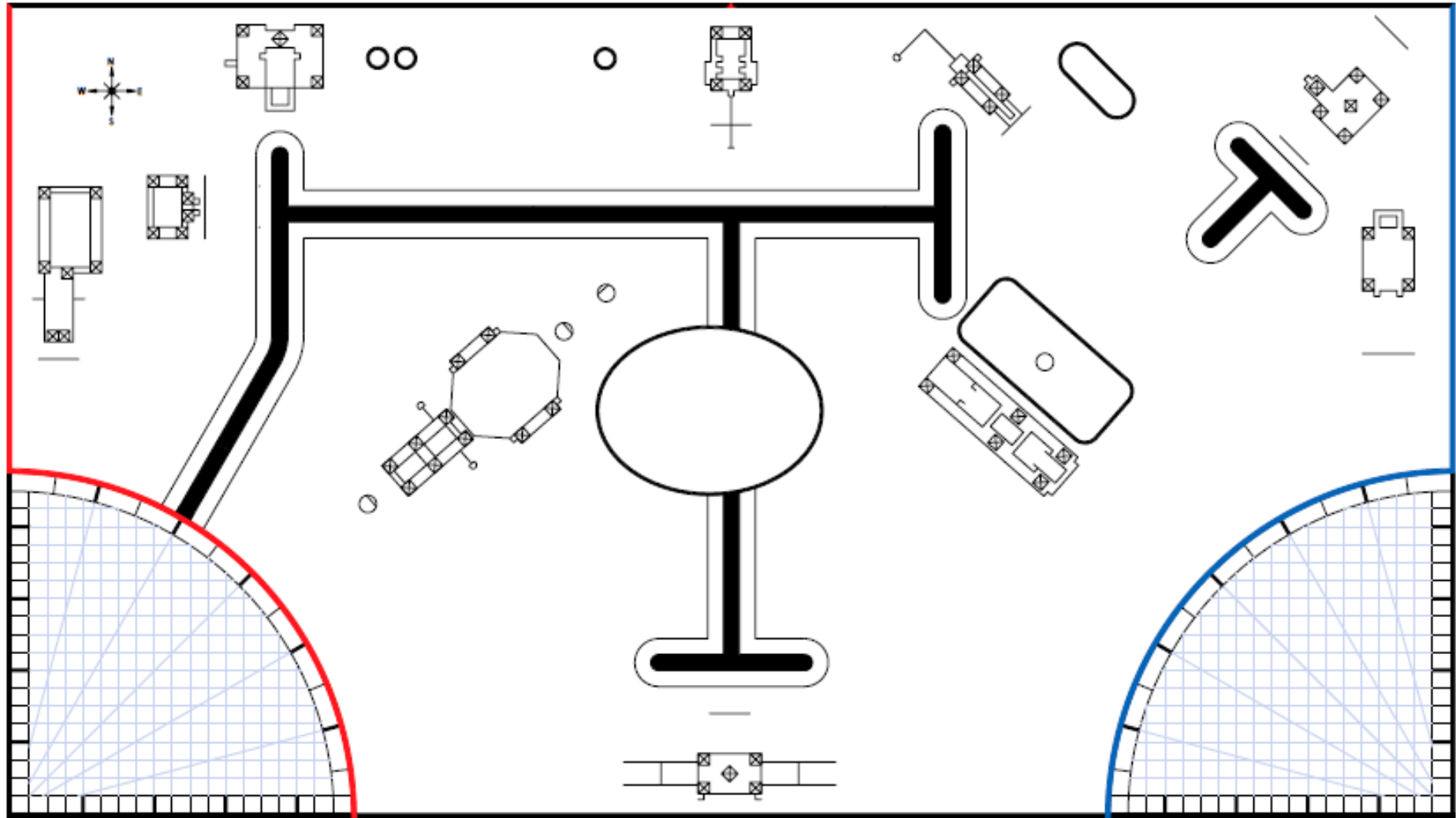
Solve Missions

- Continue to develop your robot and its attachments to complete missions in the Robot Game.
- You can improve the existing robot used in the previous sessions or create a new design.
- Create a program for each new mission you attempt. You could combine mission solutions into one program.
- Test and improve your robot and its programs.
- Revisit previous lessons to develop your coding skills or work on solving the missions.



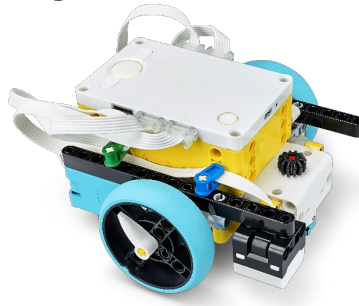
Solve Missions

ROBOT PATH DIAGRAM



Reflection Questions

- Can you follow how the program on your device is making your robot move?
- How can you iterate and improve on the existing robot design used in previous sessions?





Develop Project Solution

- Develop and create your Innovation Project solution.
- Sketch your solution. Label the parts and how it will work.

PROJECT DRAWING



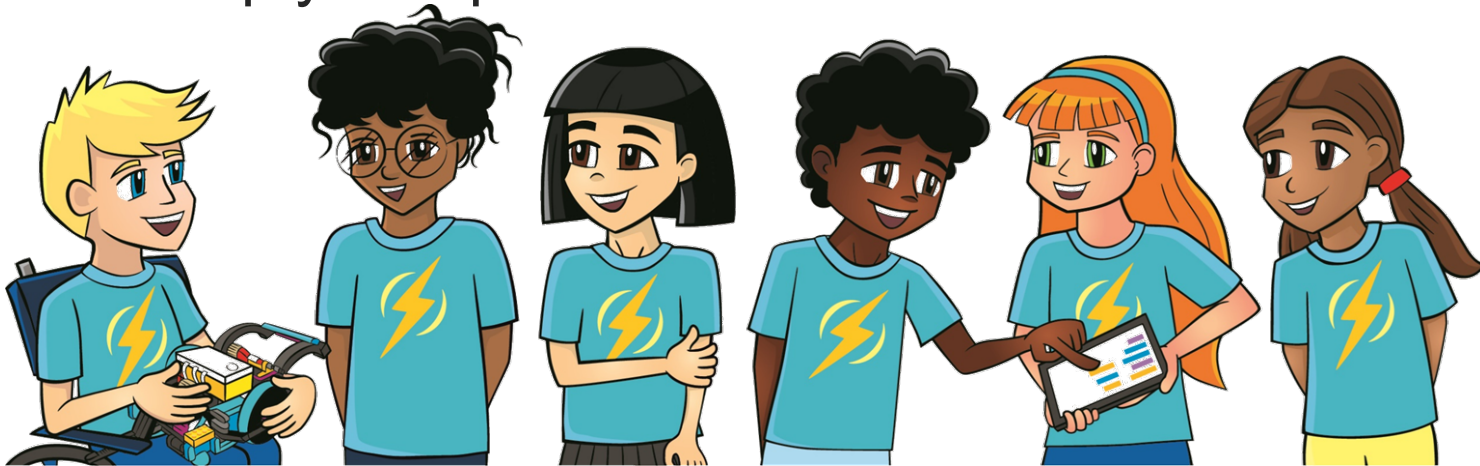
Develop Project Solution

PROJECT DESCRIPTION

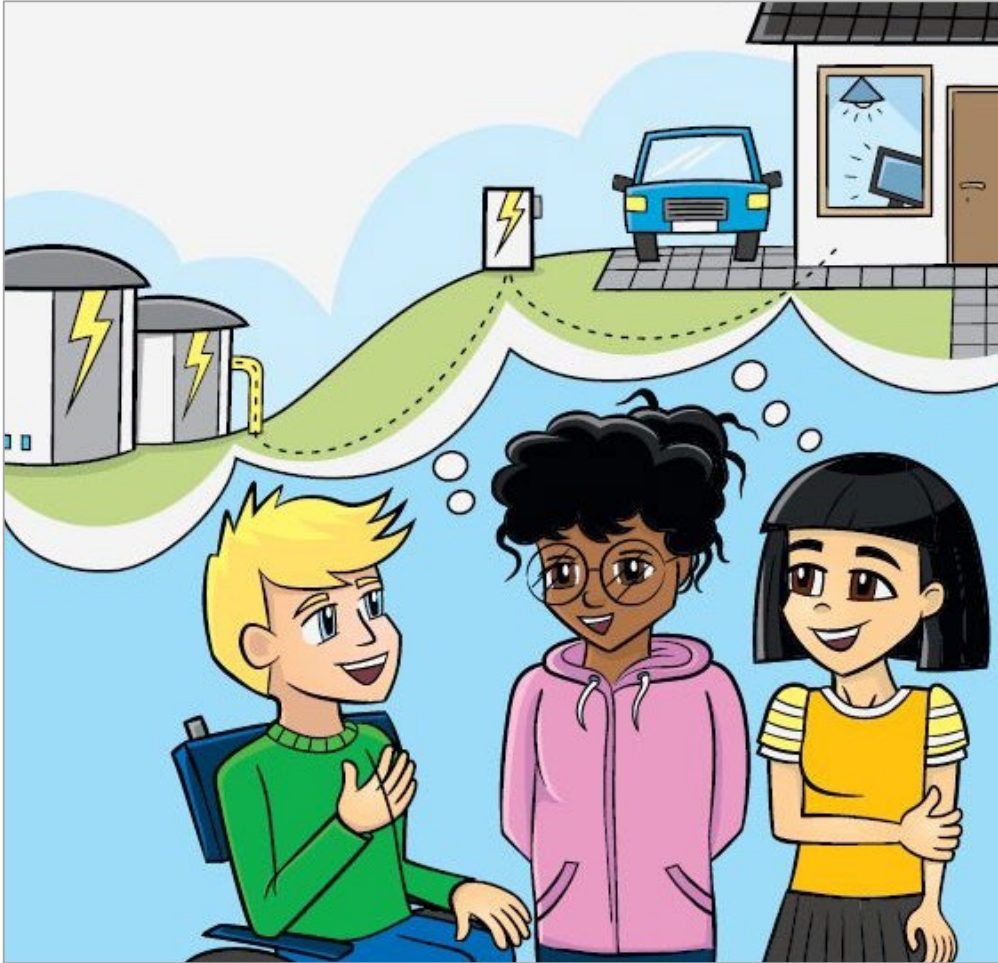
- Describe your solution and explain how it solves the problem.
- Create a prototype, model, or drawing of your solution.
- Document the process you use to develop your solution on page 23, **Innovation Project Planning**.

Share

- Get together at the mat.
- Show any missions you are working on or have completed.
- Discuss your research and your Innovation Project solution.
- Discuss the reflection questions.
- Clean up your space.



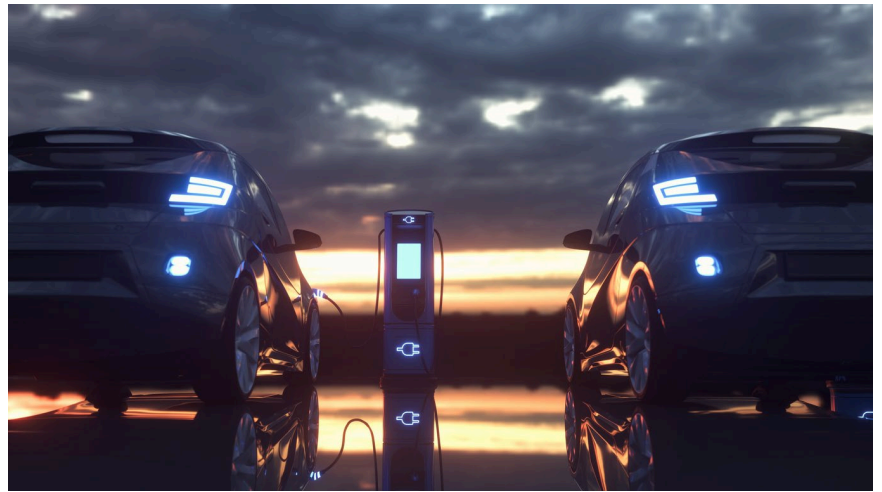
Reflection Questions



- Can you describe your innovative solution in under five minutes?
- How does your solution address your identified problem?

Career Connections

**Hybrid
Vehicle
Technician
s**



Multimedia Resources



You may wish to embed a relevant, age-appropriate video for your students here. See the Notes for an example.

Clean Up





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