

VEX IQ Level Up: Session 4 - Develop a Team Strategy

Activity: Work together to develop and test strategies!

1. **STOP** to explore and prepare for the game. Discuss the following questions with your partner.
 - ☐ What are the rules of VEX IQ Robotics Competition Level Up?
 - ☐ What questions do I have about the rules or the game setup?
 - ☐ How can I find the answers to questions I have about this game?
 - ☐ Who can help me if I am stuck?
2. **THINK** creatively with your drive partner to develop as many strategies as possible for winning the game. Use these questions to help you.
 - ☐ What are all the different ways you can think of to score the most points in a game?
 - ☐ What if you combine your idea with your partner's idea?

Feeling Stuck? Share your ideas with another drive team and ask for feedback!

3. **THINK** about all the strategy ideas you generated, and narrow them down into one to try first. Record this strategy in your engineering notebook. Discuss the following questions to help you make a decision.
 - ☐ What strategy idea do you like best, and why?
 - ☐ Can you see a way to improve on any of the strategy ideas?
 - ☐ Which idea do you think is the best strategy for the teamwork challenge, and why?
4. **TEST** your strategy by driving the robot on the Field. Collect and add data to the engineering notebook about your strategy. Data could include:
 - ☐ Points scored
 - ☐ Time it takes to complete each game task
 - ☐ The path of the robot
 - ☐ Which Game Objects are being used for each task

Documentation will vary depending on your strategy!

Use a combination of tables, notes, and sketches to record your strategy and testing.

5. **EVALUATE** your strategy. Answer the following questions about your strategy and testing to help you reflect and make a plan for future strategies.
- ☐ How well did your strategy work?
 - ☐ How would you change your strategy to make it better for next time?
 - ☐ Can you think of an even better strategy, now that you have played the game?
 - ☐ What did you learn from this round of strategy development?
6. Use what you have learned to iterate on and improve your strategy. **Be ready to share your best strategy** with the whole team in the Wrap-Up.

Activity Checklist

- ☐ Each drive team partner shared and discussed what they knew about the game.
- ☐ Each drive team partner shared strategy ideas.
- ☐ The drive partners agreed on a strategy to try.
- ☐ Both drive team partners contributed to testing and collecting data.
- ☐ Both drive team partners contributed to evaluating their strategy.