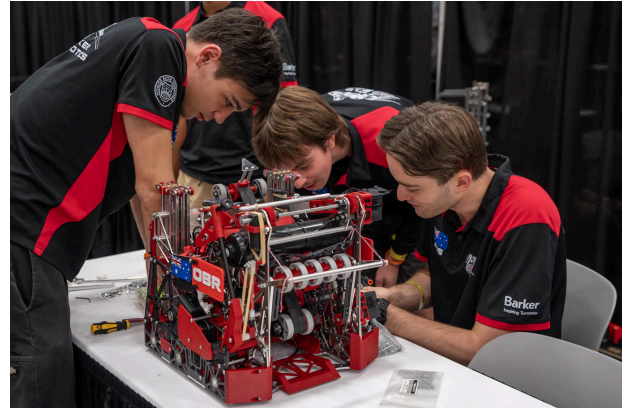


V5RC Push Back: Session 4 - Develop a Team Strategy

Activity: Collaborate to develop strategy ideas, test them, and collect data to evaluate their effectiveness.

1. **STOP** to explore and prepare for the game. Use the following checklist to help you. Discuss your strategy ideas with your drive partner.

- ☐ What do I know about playing Push Back?
- ☐ What are the rules of Push Back?
- ☐ 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 someone else's idea?

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

3. **THINK** about all the ideas you generated, and converge your thinking to narrow them down into the best one or two to try. Use the following checklist. Discuss and record your answers to these questions in the engineering notebook:

- ☐ 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 competition, and why?

4. **TEST** your strategy by driving the robot to complete the game tasks in your strategy. Collect and add data to the engineering notebook about your strategy, including:

- ☐ Points scored
- ☐ Time it takes to execute each component of the strategy

Example Documentation: Remember, this is just one way to document your testing. Find the documentation style that works best for you.

Game Task	Time	Points Scored	Notes
Remove a Block from a Loader and score in a Long Goal	10 seconds	Number Number Number	

5. **EVALUATE** your strategy. Use the following checklist to help you. Record your reflections about the strategy in the engineering notebook.

- ☐ How well did your strategy work?
- ☐ How do you know whether your strategy was or wasn't successful?
- ☐ Is there a part of your strategy you would keep?
- ☐ Is there a part of your strategy you would like to change?
- ☐ How would you change your strategy to make it more effective 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 team member shared and discussed what they knew about the game.
- ☐ Each team member shared strategy ideas.
- ☐ The team reached consensus about a strategy to try.
- ☐ Both team members contributed to testing and collecting data.
- ☐ Each team member contributed to evaluating their strategy.