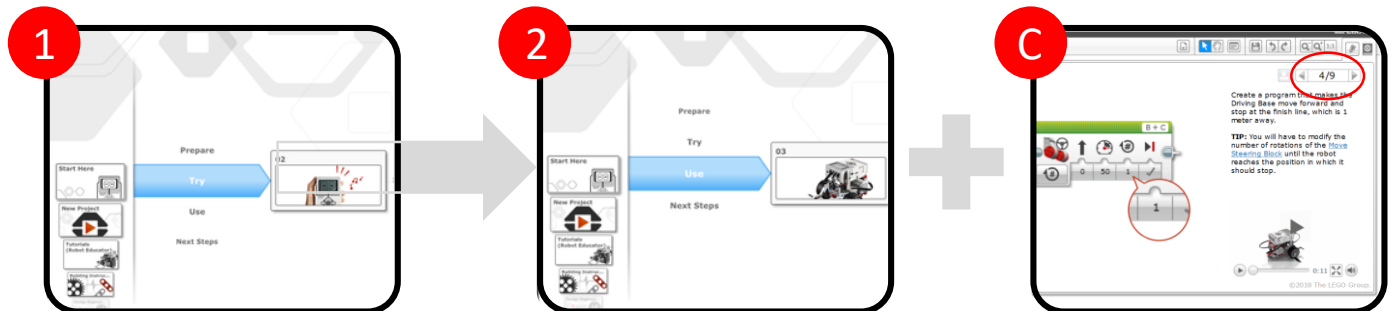# LEGO® MINDSTORMS® Education EV3
Lab Alternative Robot Lessons

The challenge (C.) in each robot lesson is optional, dependent on time

Session 1 Robot Lesson

Learn the basics and build your first robot driving base.

1. Start Here -> Try
2. Start Here -> Use, page 3-8

C. Use what you've learned to drive your robot across the mat.

Remember: Make sure you have a robot game field set up on the floor or table for the end of this session. Take the driving base apart at the end of the session, so the other group can build it next time.

Session 2 Robot Lesson

Program your robot to move and stop in different ways.

1. Tutorials -> Basics -> Straight Move
2. Tutorials -> Basics -> Stop at Object
C. Tutorials -> Basics -> Tank Move

Remember: Moving around the robot game field in different ways will help you score more points.

Session 3 Robot Lesson

Program your robot to interact with game objects.

1. Tutorials -> Basics -> Curved Move
2. Tutorials -> Basics -> Move Object

C. Use what you've learned to modify the program and attachment to deliver a health unit to a location on the field.

Remember: Interacting with and moving objects on the robot game field is how you score points.

Session 4 Robot Lesson

Learn to use sensors in more advanced ways.

1. Tutorials -> Beyond Basics -> Multiple Switch
2. Tutorials -> Beyond Basics -> Sensor Blocks

C. Tutorials -> Beyond Basics -> Sensor Blocks, page 5

Remember: Using different sensors during the game will help your robot be more efficient and effective.

Session 5 Robot Lesson

Learn to stop at and follow lines.

1. Tutorials -> Basics -> Stop at Line
2. Tutorials -> Beyond Basics -> Switch
C. Tutorials -> Beyond Basics -> Color Sensor – Calibrate

Remember: Following and stopping at lines on the robot game field is a great way to navigate.

Session 6 Guided Mission

Use the robot skills you have learned to solve this mission! Complete the Pseudocode page for this mission. Apply your line-following skills to reach the model. Can you use the color sensor to follow the lines on the mat? What attachment could you build for your robot to complete this mission?