Direct Instruction Summary

Intro to Color Codes 09: Skills Check 2 (Grades 3-5)

1. Introduction

Scenario: It is up to the students to help Ozobot win the soccer game! There are 30 seconds left in the game and Ozobot has the ball. They will apply what they've learned about Line Switch Color Codes to program Ozobot to move past the other players and score a goal before the timer is up.

2. Program the Speed

The first missing Color Code after Start will program Ozobot's speed. Have students choose a Speed code and add it to their activity sheet.

3. Program the 30-Second Timer

Thirty seconds left in the game, the second Color Code will set Ozobot's timer. Have students add the Timer On (30 sec) code in the second space for a Color Code.

4. Program a Line Switch to Avoid Player 1

The third missing Color Code on the line after Start will program Ozobot to avoid player 1 and move to the next line. Ozobot needs to turn right, so have students put the Line Switch Right Color Code in the last group of empty boxes after the start.

5. Program a Line Switch and U-Turn to Avoid Player 2

Add a U-Turn on the line end. The other Color Code is Line Switch Straight to avoid player 2 and continue to the next line.

6. Program Ozobot to Make It to the Goal On Your Own

Have students complete the rest of the missing Color Codes on their own or with a partner.

7. Run Your Bot

Put your bot on Start. Does Ozobot run the course and score a goal before the timer is up?

8. Check Your Color Codes and Debug

Check the remaining codes if needed:
Line 3 should have a U-Turn and a Line Switch Right.
Lines 4 and 5 should have a U-Turn and a Line Switch Straight.
Line 6 should have a Line Switch Right.
Line 7 should have a U-Turn and Line Switch Left.
Line 8 should have a U-Turn and a Win/Exit (Play Again).

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9. Lesson Wrap-Up

Have students explain to a partner, in writing, or in a group discussion:
1. the Color Codes they used and why
2. a problem they encountered and how they attempted to solve it
3. how their bot behaved based on the Color Codes used and if the bot demonstrated the correct outcome