Direct Instruction Summary

Intro to Color Codes 07: Line Switch

1. Introduction

Ozobot is pretending to be a frog. It needs to move from lily pad to lily pad to catch a fly. There are eight lines, each with a number next to it, showing the sequence Ozobot needs to move to get from start to the fly.

2. Complete Line 1

Find Start 1 and ask students what direction Ozobot needs to turn to move to Line 2. Ozobot will need to turn right. Add the Line Switch Right Color Code.

3. Complete Line 2

Line 2 has 2 missing Color Codes, one with 2 colors at the end of the line and one with 3 colors. Add the U-Turn at the end of the line. As the bot comes to Line 2, it will randomly choose which direction to go, so the U-Turn helps direct it in the correct direction.

Ask students what direction Ozobot will need to move to get to line 3. Fill in the Line Switch Straight code.

4. Complete Line 3

Line 3 has 2 missing Color Codes, one with 2 colors at the end of the line and one with 3 colors. Add the U-Turn at the end of the line. As the bot comes to Line 3, it will randomly choose which direction to go, so the U-Turn helps direct it in the correct direction.

Ask students what direction Ozobot will need to move to get to line 4. Fill in the Line switch Straight code.

5. Complete Line 4

Line 4 also has two missing Color Codes. Add the U-Turn code at the end of the line.

Ask students what direction Ozobot will need to move to get to line 5. Fill in the Line Switch Left code.

6. Complete Lines 5 and 6

Both Lines 5 and 6 need a U-Turn on the end. Ask students which Line Switch codes they need to use to get from Line 5 to Line 6 and then to Line 7.

7. Complete Lines 7 and 8

Both Lines 7 and 8 need a U-Turn on the end. Ask students which Line Switch code they need to use to get from Line 7 to Line 8.

Next to the fly, have students fill in the Win/Exit (Play again) code.

8. Run Your Bot

Students put their bot on start and watch as it moves from one line to the next to get the fly!

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
4. why the line switch codes are best used with a u-turn