Special Moves Kit Lesson 5

Line Switch, Which Switch

Name: _____

Date: _____

Ozobot can be programmed with Color Codes to leave one line and find another line to follow using Line Switch Color Codes. Choose from Line Switch Straight, Line Switch Left, and Line Switch Right. Be sure to use a straight line magnet after the Line Switch code to give the bot sufficient space to make the switch. The Line Switch Color Codes work best when the line they are switching to is perpendicular to the direction it is traveling. Also, when the bot reaches the new line it will make a random decision to go left or right.
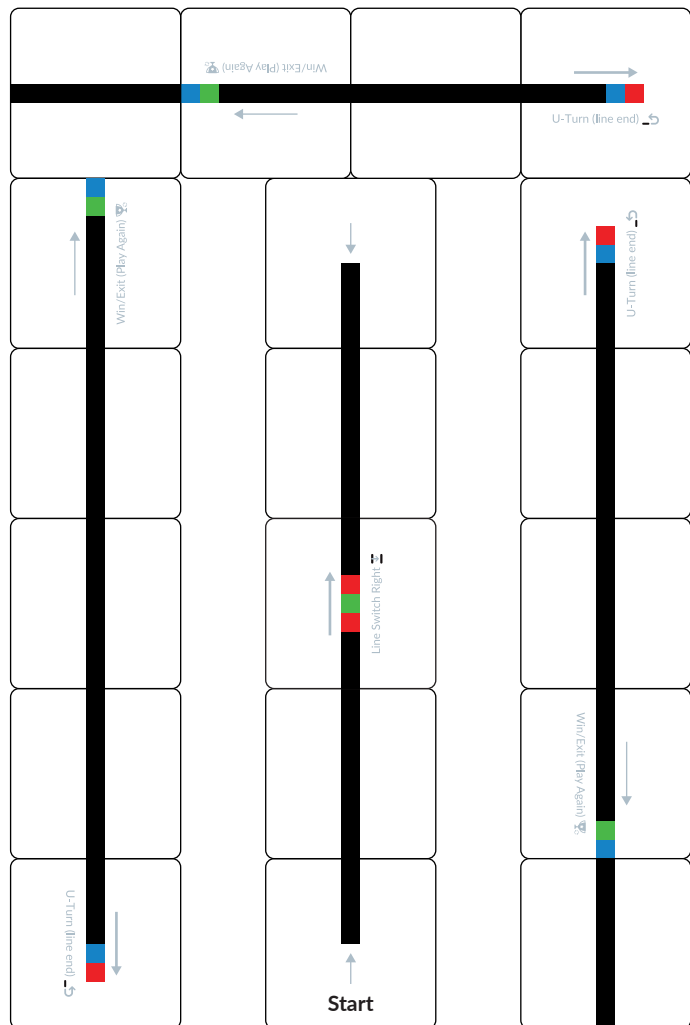
Place the Color Code Magnets in the following configuration with the Line Switch Right code on the line after Start. Observe the behavior of the bot. Did it turn right after the Line Switch Right Color Code? What else did students observe?

Replace the Line Switch Right magnet with Line Switch Left. Predict what the bot will do. Make observations as the bot is programmed to turn left.

Replace the Line Switch Left with Line Switch Straight. Make predictions, then observe the behavior of the bot.

Brainstorm situations when this action would be helpful.

Allow students time to use the Color Codes they have learned so far to create a maze puzzle for others to run the bot on. Then, remove one or two color code magnets and trade with a friend. The second person needs to add the correct Color Code to solve the puzzle.

Hint:
You may need to place a magnet after the U-Turn. It doesn't matter which one.

COLOR CODE MAGNETS

ozobot