Final Challenges

By Sanjay and Arvind Seshan

BEGINNER PROGRAMMING LESSON
TEACHER INSTRUCTIONS

• You can set up any challenge you want using colored electric tape on a white board (available at home improvement/hardware stores). You can also use large white poster paper on a hard floor.

• Note that the electric tape colors do not match LEGO’s colors. So your sensors may have trouble reading those colors.

• You can also use old FIRST LEGO League Mats for practice. They are sometimes available on eBay or other teams.
CHALLENGES IN THIS LESSON

• The following slides have a few examples of challenges that incorporate the Beginner Lessons.

• Solutions are not provided. Students should use everything they have discovered in the Beginner Lessons series to solve the missions.

• Image on the right features EV3Lessons.com’s training mats. These are not for sale, but the designs are given away free to anyone who donates to the site.
MAZE 1: MOVING STRAIGHT AND TURNING PRACTICE

1) Go out of base
2) Turn left into the passage
3) Turn right
4) Turn right and head to the END
MAZE 2: SENSOR USAGE PRACTICE

1) Go out of base
2) Go up to the North wall and touch it.
3) Back up turn and navigate through the passage
4) Go to the “do not touch this wall”. Don’t touch it.
5) Turn and go to the West wall.
6) Turn and head to the END!

USE 2-3 SENSORS!
STOP ON THE LINE

Program your robot to move forward and then stop exactly at the 3rd line.

You must use a loop and a sensor!

What sensor will you use?
CREDITS

- This tutorial was created by Sanjay Seshan and Arvind Seshan
- More lessons are available at www.ev3lessons.com

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.