

LINE FOLLOWING Skills Challenge

By EV3Lessons



Materials:

White floor/paper and black electrical tape

or

EV3Lessons.com training mats

or

Any FLL mat with lines to follow

Set up:

Either make lines to follow or lay out a mat with lines. Make sure you have some straight lines and some curved lines.

This challenge can be assigned as homework as students can program on their own copy of the EV3 software or as an in-class exercise.

Instructions to team/class:

Each student should write the best line follower they can and then test it out.

Discussion:

Each student demonstrates their program on different lines. As a group, discuss what worked well and what didn't and on which lines.

How did each person's program differ?
How could you improve each person's program?

Sample Criteria:

- 1) Which line follower was fastest?
- 2) Which stayed on the line the best?
- 3) Which wiggled the least/smoothest?
- 4) Which one worked on all the lines?

Next Steps:

Depending upon what the students created, learn a new type of line follower. EV3Lessons.com has all the way from simple to proportional line followers to learn from.

Variations:

Create the best line follower for just a straight line, or just a very curved line.