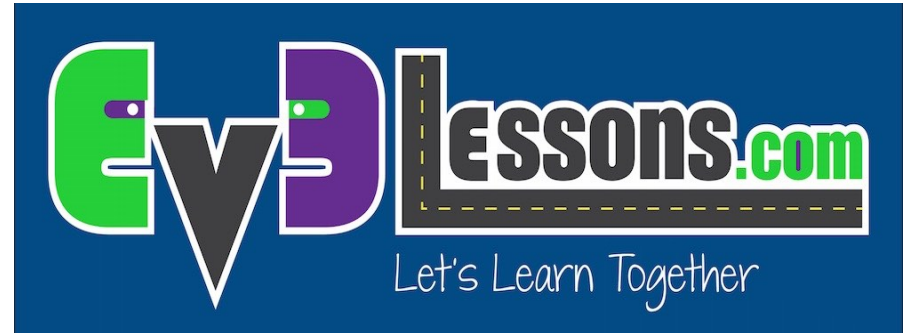
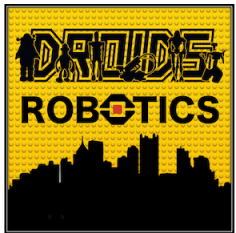


# BEGINNER EV3 PROGRAMMING LESSON



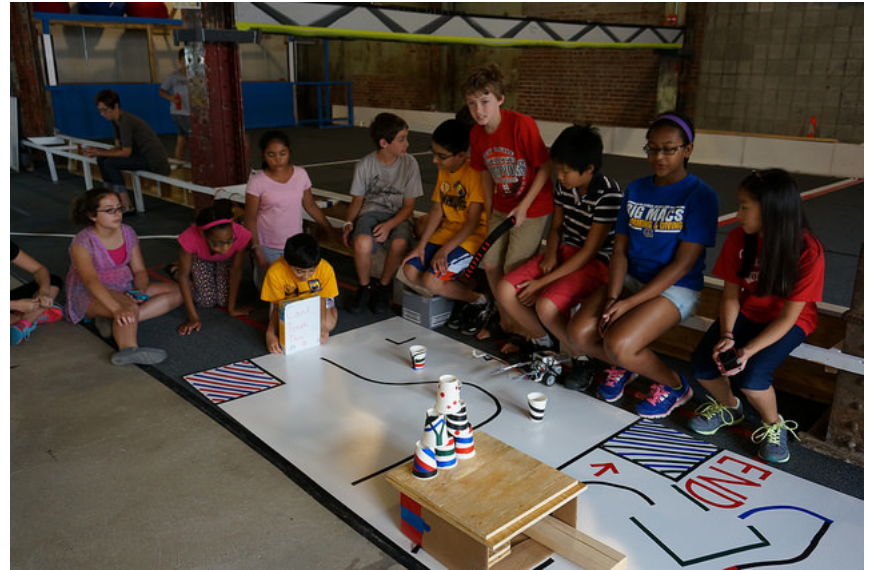
Topics Covered:  
Final Challenges



By: Droids Robotics

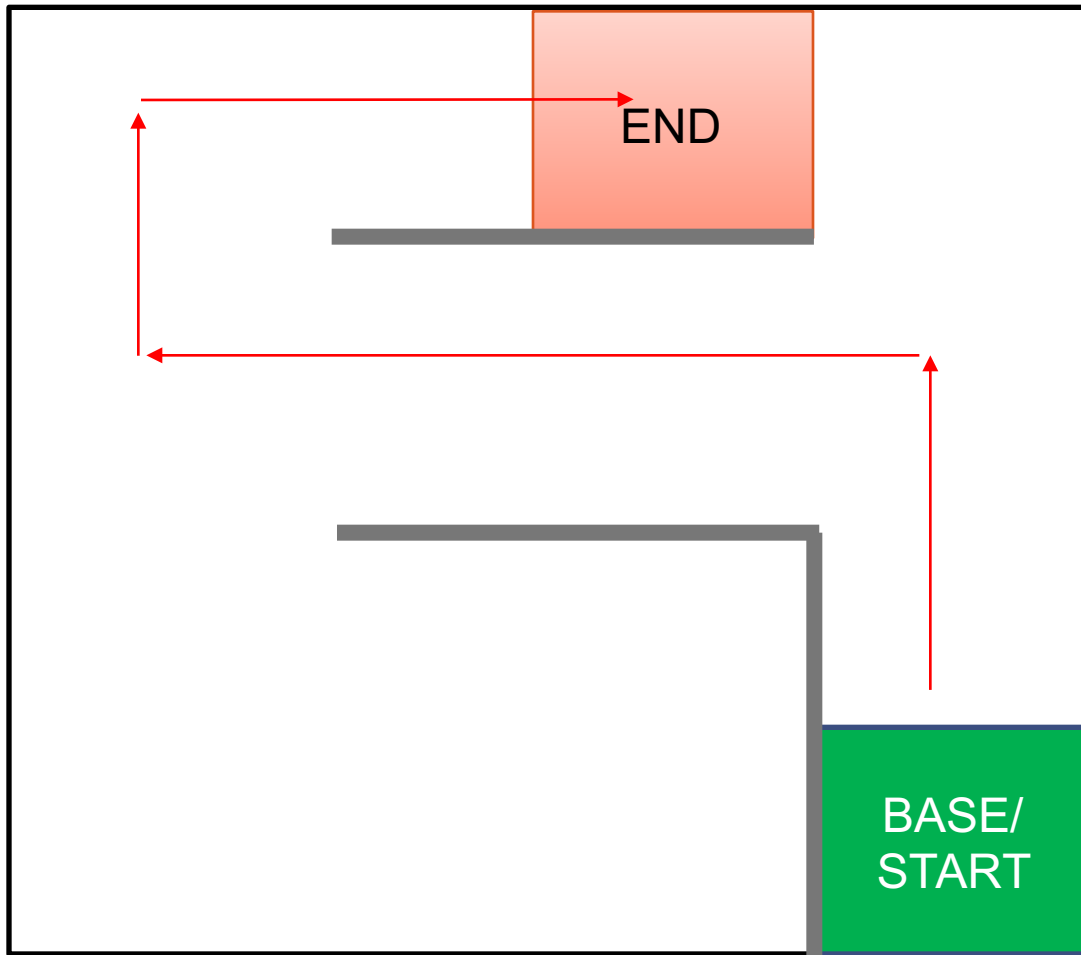
# TEACHER INSTRUCTIONS

- 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.



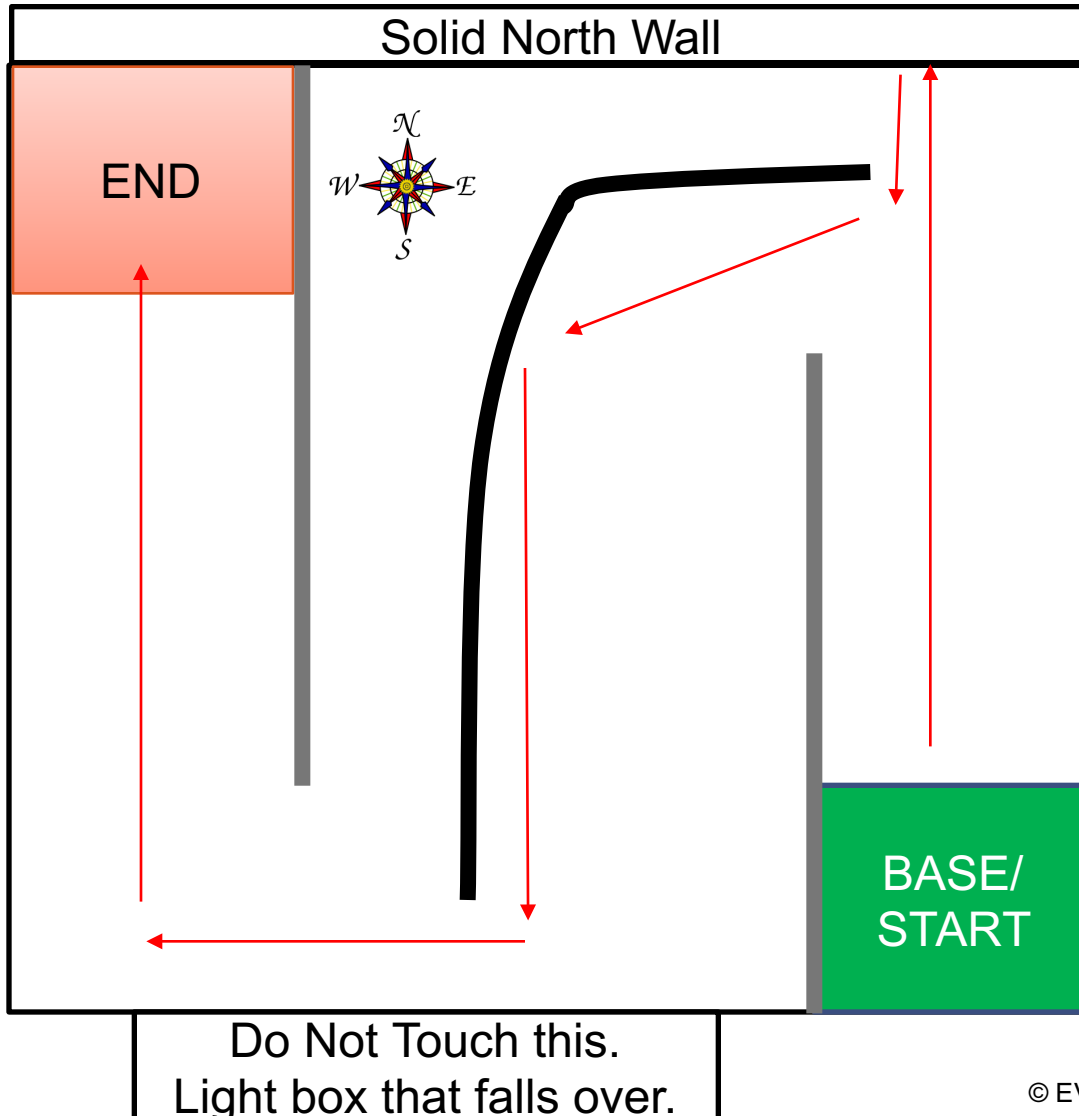
- The following slides have a few examples of challenges that incorporate the Beginner Lessons.

# 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!

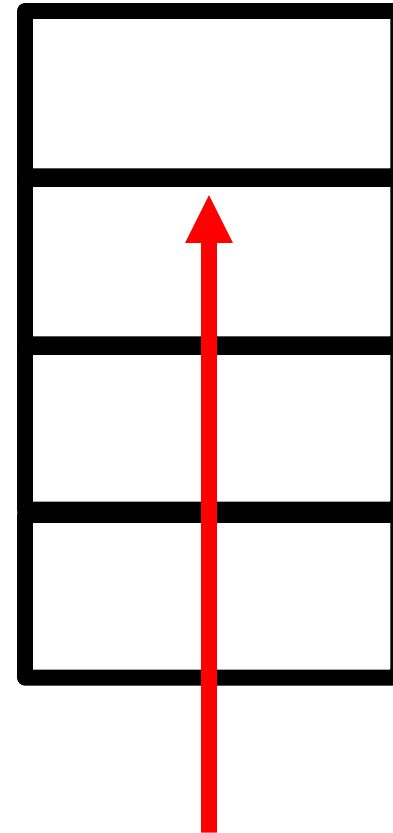
USE 2-3 SENSORS!

# STOP ON THE LINE

**Program your robot to move forward and then stop exactly at the 3<sup>rd</sup> 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 from Droids Robotics.
- More lessons are available at [www.ev3lessons.com](http://www.ev3lessons.com)
- Author's Email: [team@droidsrobotics.org](mailto:team@droidsrobotics.org)



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