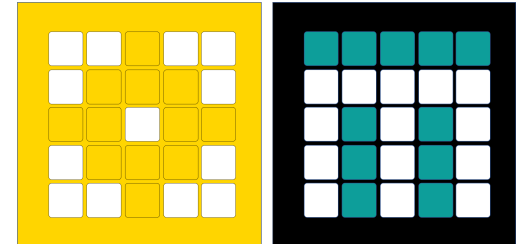


# PRIME LESSONS

By the Makers of EV3Lessons

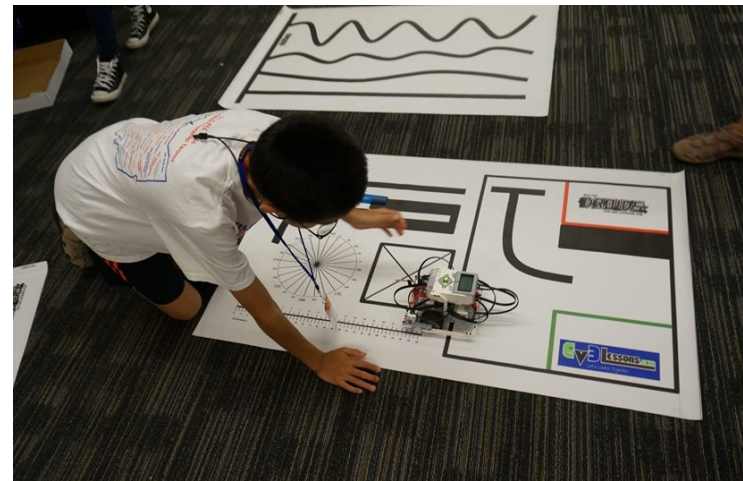


## FINAL CHALLENGES

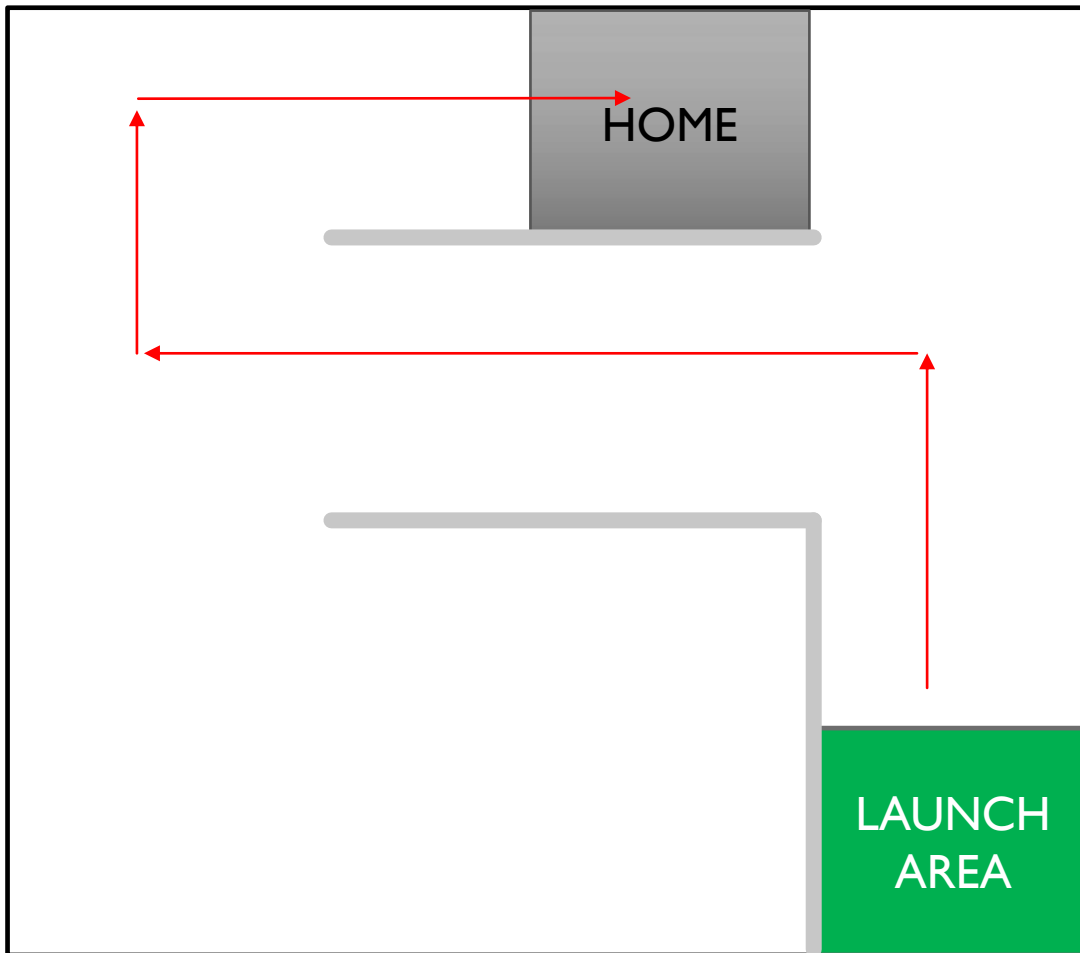
BY SANJAY AND ARVIND SESHAN

# INSTRUCTIONS

- The goal of these challenges is to combine everything the students have learnt so far: moving, turning and basic sensor usage
- 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.

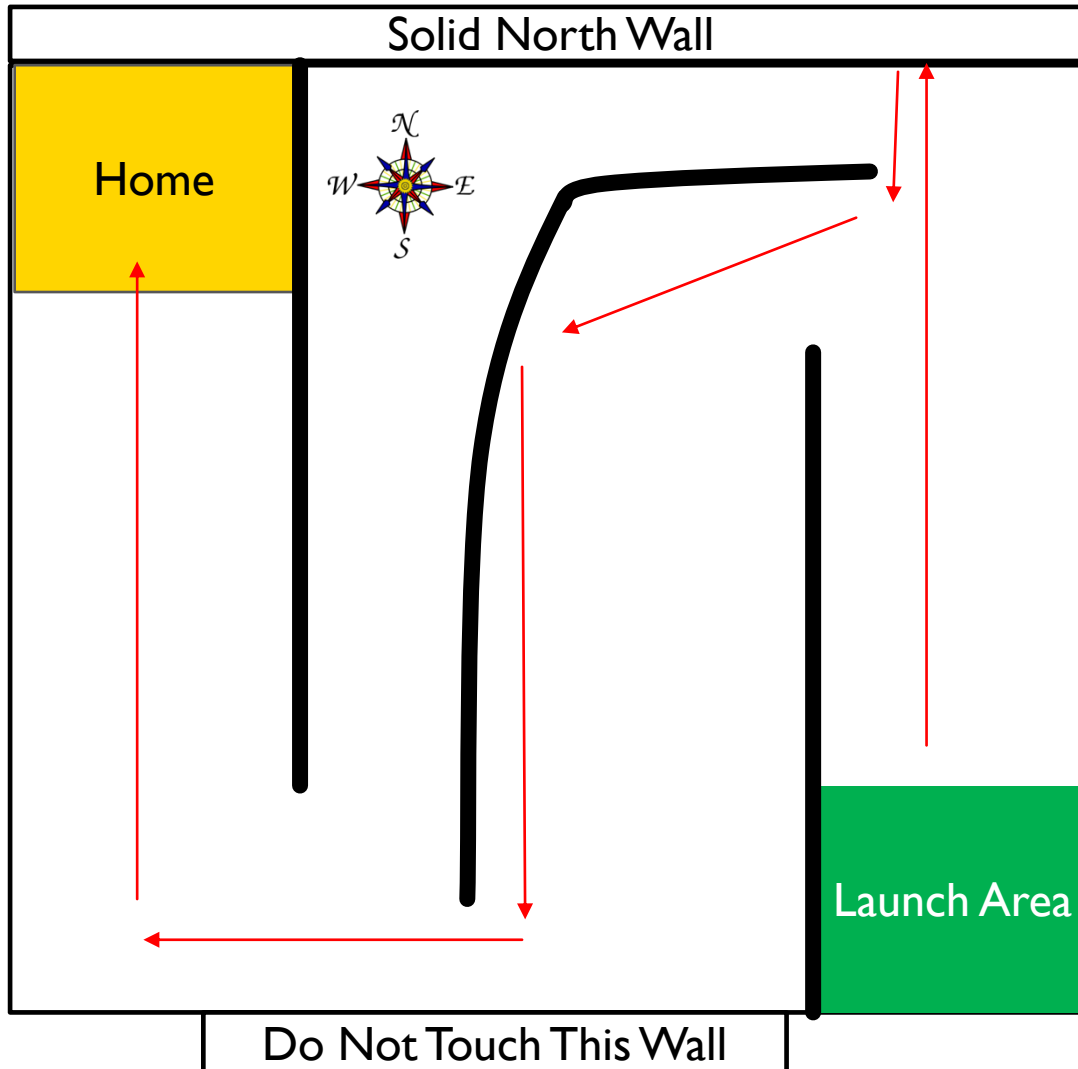


# CHALLENGE 1: MOVING STRAIGHT AND TURNING PRACTICE



- 1) Go out of Launch Area
- 2) Turn left into the passage
- 3) Turn right
- 4) Turn right and head to Home

# CHALLENGE 2: SENSOR USAGE PRACTICE



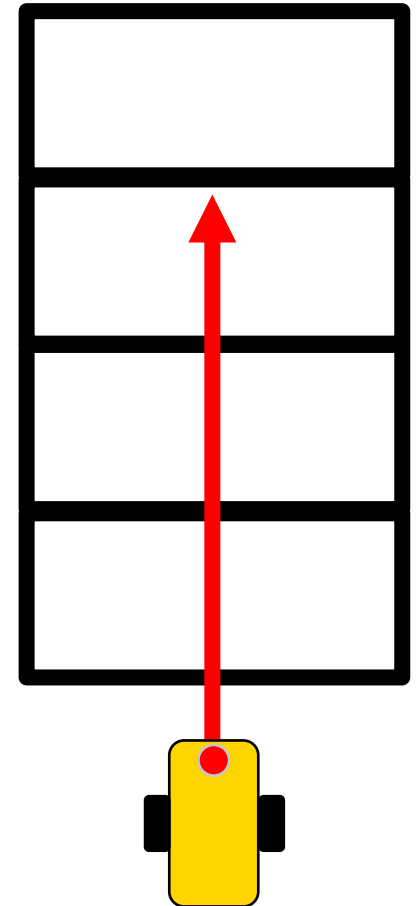
- 1) Go out of Launch Area
- 2) Go up to the North wall and **touch it**.
- 3) Back up turn and navigate through the passage
- 4) Go to the “do not touch this wall”. **Don't touch it**. (some light box that falls over when touched can be used here)
- 5) Turn and go to the West wall.
- 6) Turn and head to Home.

USE 2-3 SENSORS



# STOP ON THE LINE

- Program your robot to move forward and then stop exactly at the 3rd line.
- Move forward until a black line
- Repeat that action three times
- Combine what you learnt in the Repeat Block, If-then Block, Color Sensor and Move Forward lessons



# CREDITS

- This lesson was created by Sanjay Seshan and Arvind Seshan for Prime Lessons
- More lessons are available at [www.primelessons.org](http://www.primelessons.org)



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