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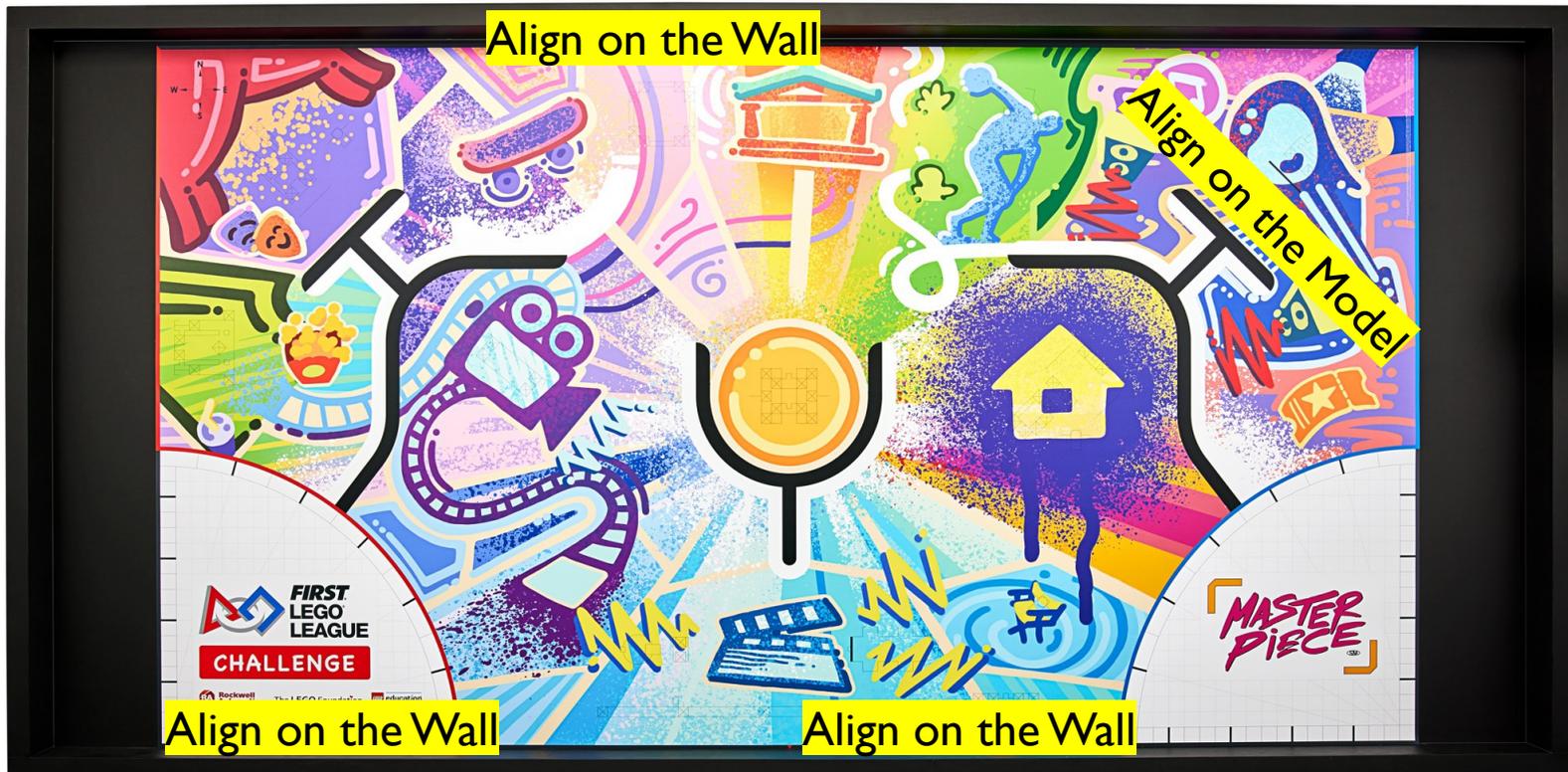
learn

LESSON 6:  
ALIGNING ON WALLS & MODELS

SESHAN BROTHERS

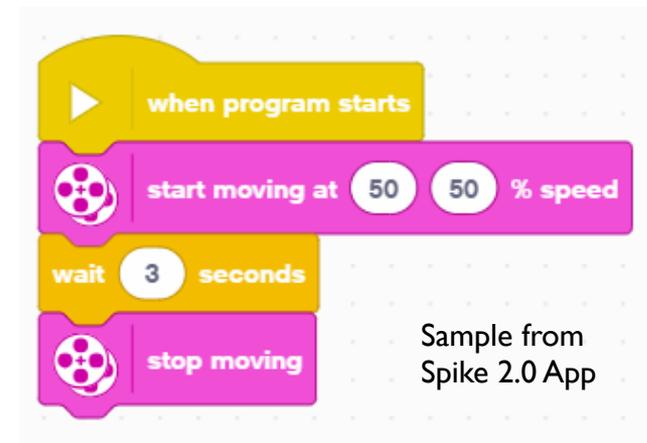
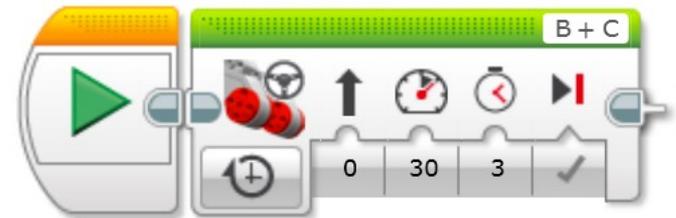
# WHY ALIGN ON WALLS & MODELS

- Aligning on walls and mission models can help your robot straighten out along its path
- After traveling from a Launch Area and turning, the robot may no longer be straight
  - Backing into the wall will help the robot straighten out



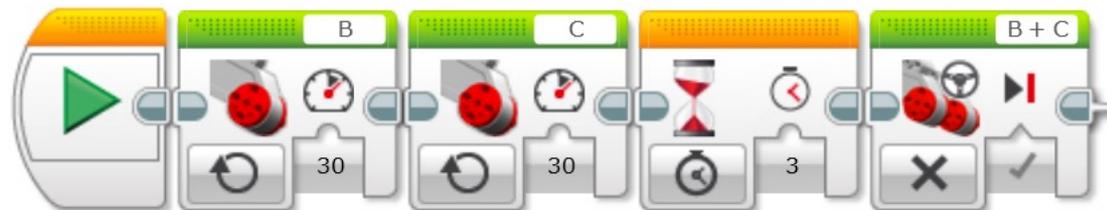
# MOVING FOR SECONDS

- To align on the wall or a fixed mission model, you will use Move Seconds
- Why use Move Seconds?
  - If Move Degrees or Rotations is used and the robot hits the wall before the move is completed the robot will stall because it will keep trying to move.
  - With Move Seconds, the robot will continue on with the program after a specified number of seconds no matter how far it went.



# HOW TO PROGRAM IN EV3

- To make the program, two separate motor blocks (one for the left motor and one for the right motor) will be needed. The robot will wait for seconds and then turn off the motors.
- Why not use one Move Steering block like on the previous page?
  - In the Move Steering block, motors are synchronized so when one wheel hits the wall and stops, the other wheel will stop as well even if it hasn't touched the wall yet. Therefore, the robot will not be straight.



## NEXT STEPS

- Take a look at the Stall Detection and Move Blocks lesson on [EV3Lessons.com](https://EV3Lessons.com) or [PrimeLessons.org](https://PrimeLessons.org) for more tips.
- Think about how you would apply this lessons to this season
- Are there alternative strategies you can use to align on a mission model or wall? E.g. using a touch sensor or stall detection techniques

# CREDITS

- This tutorial was created by Sanjay Seshan and Arvind Seshan
- More lessons at [www.ev3lessons.com](http://www.ev3lessons.com) and [www.flltutorials.com](http://www.flltutorials.com)



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