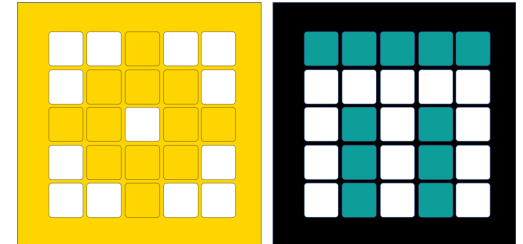


PRIME LESSONS

By the Makers of EV3Lessons



GRYO DRIFT

BY SANJAY AND ARVIND SESHAN

This lesson uses SPIKE 3 software

LESSON OBJECTIVES

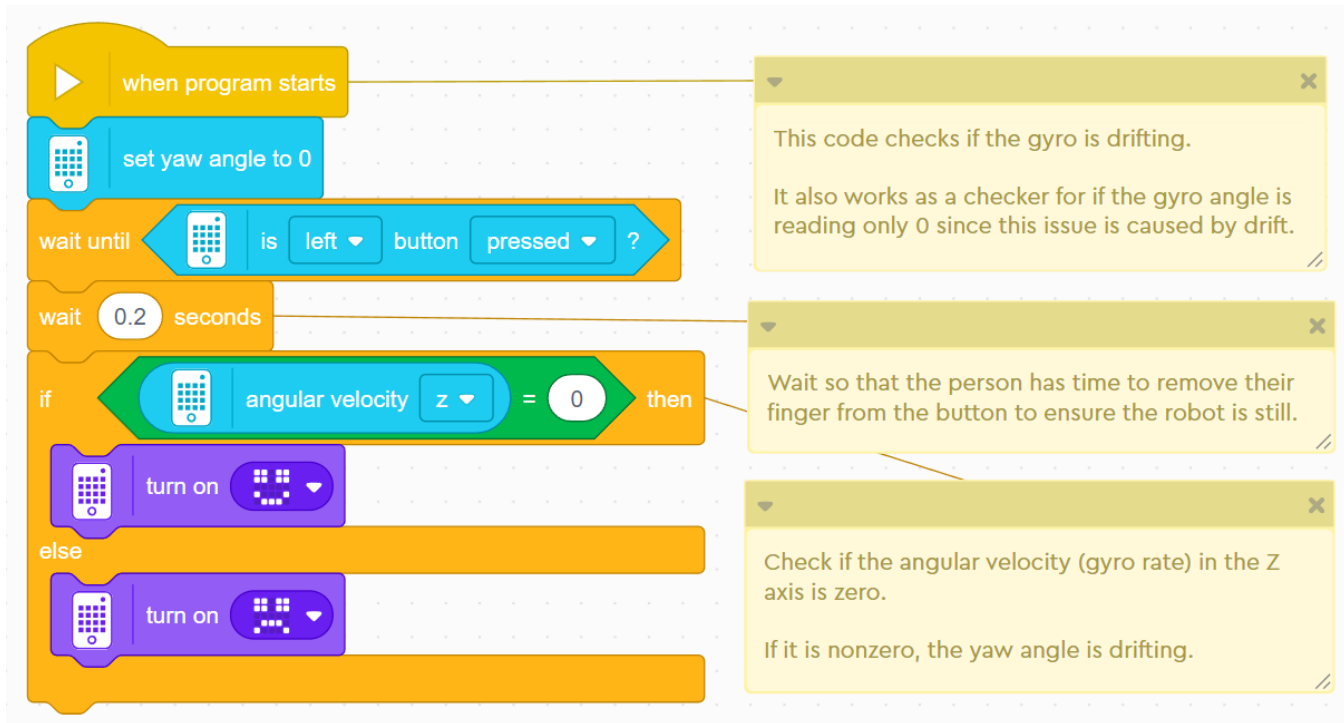
- Understand that the gyro sensor drifts and create a way to check for it

GYRO PROBLEMS

- Issue 1: Watch this video. (<https://youtu.be/PdQLqalLNgM>). A robot using SPIKE 2 can start drifting after the hub is booted by running some simple code.
- Issue 2: The gyro angle can also be stuck reading 0 all the time using both SPIKE 2 or SPIKE 3
- Both issues are caused by gyro drift
- In both SPIKE 2 and SPIKE 3, it seems that the gyro waits for the robot to be still before reading gyro values. However, since drift has already been introduced at this point by shaking the robot, the hub thinks that it is moving continuously even when the robot is still.

SOLUTION TO GYRO DRIFT

- Check if your gyro is drifting before you launch your robot for your match
- If it is drifting, reboot your robot



If the display shows an unhappy face when you press the left hub button while the hub is still, you will need to reboot your robot.

CREDITS

- This lesson was created by Sanjay Seshan and Arvind Seshan for SPIKE Prime Lessons
- More lessons are available at www.primelessons.org



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