

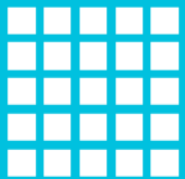
SPIKE PRIME LESSONS

By the Creators of EV3Lessons



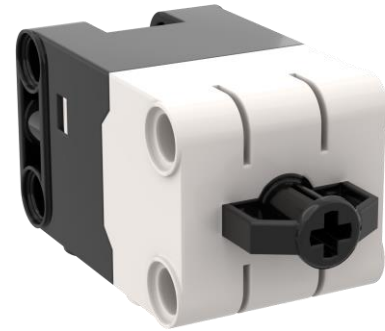
INTRODUCTION TO FORCE SENSOR

BY SANJAY AND ARVIND SESHAN



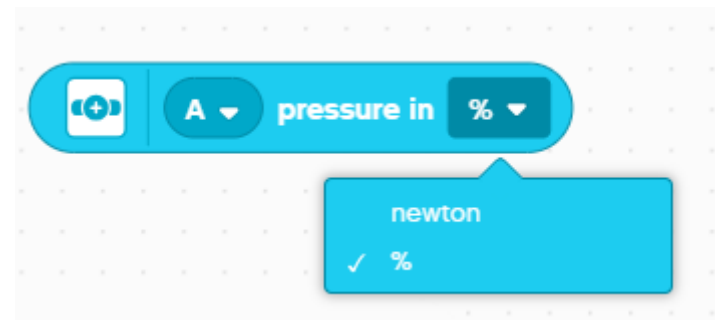
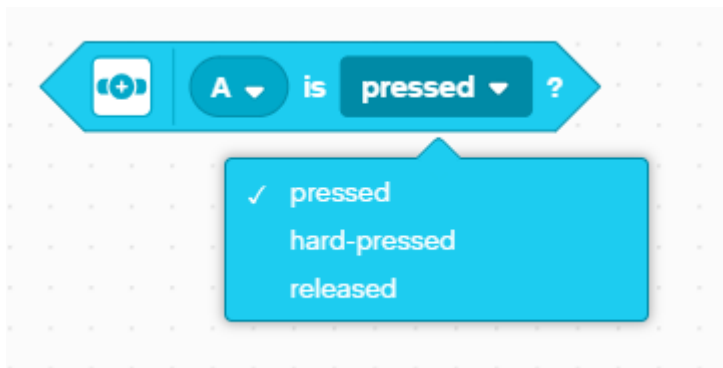
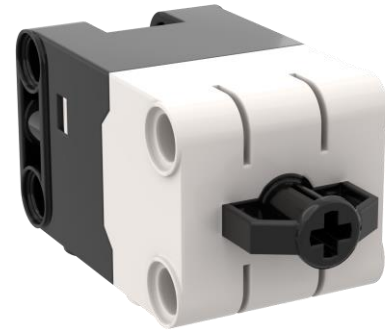
LESSON OBJECTIVES

- Learn how to use the Force Sensor
- Learn how to use the Wait Until Block



WHAT IS A FORCE SENSOR?

- The Force Sensor does two main types of sensing:
 - Touch sensing
 - Force sensing
- You can measure the Force in percent or Newtons



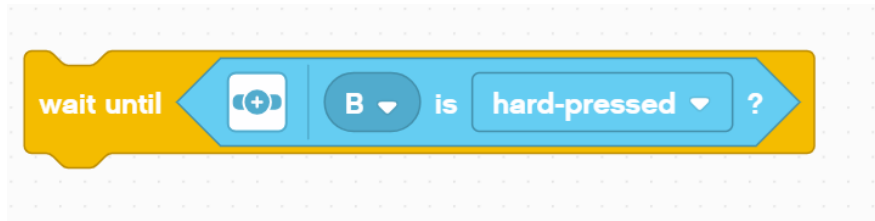
HOW DO YOU PROGRAM WITH A FORCE SENSOR

- The three modes are
 - Pressed – even a gentle tap is detected
 - Hard-pressed – pressing the sensor about 60% in
 - Released – hold the sensor in and release it any amount



CHALLENGE I: MOVE UNTIL PRESSED

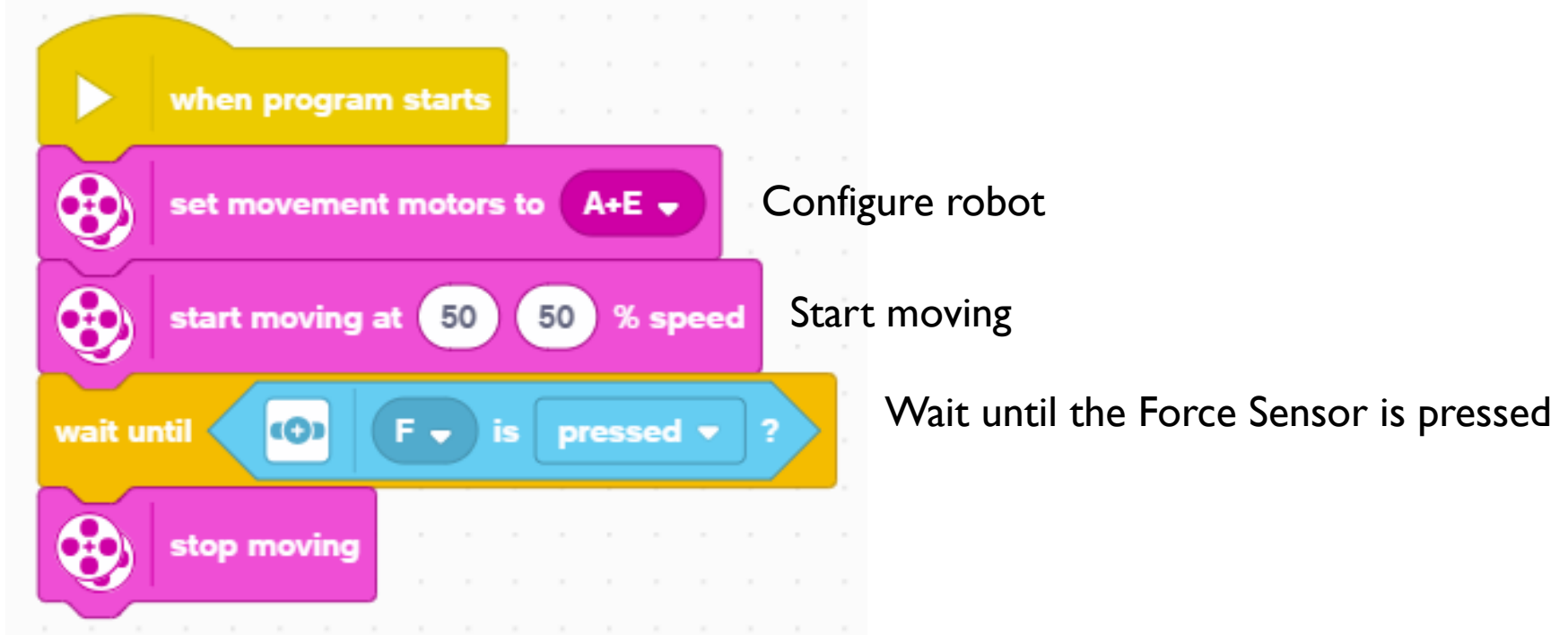
- Program your robot to move straight until you press the sensor with your hand
- Try using the sensor in Pressed and Hard-Pressed Modes
- You will use the wait until block for this challenge



- Basic steps:
 - Set the **movement motors** for your robot (A and E for Droid Bot IV and ADB robot)
 - Set the % **speed** for your robot
 - Start **moving straight**
 - Use the **wait until** block to detect when the Force Sensor is pressed
 - **Stop moving**

CHALLENGE 1: SOLUTION

In previous lessons, you learnt how to configure your robot. The first set of blocks sets the movement motors. (See Configuring Your Robot Lesson)



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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