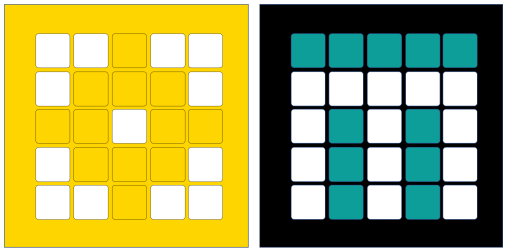
PRIME LESSONS

By the Makers of EV3Lessons

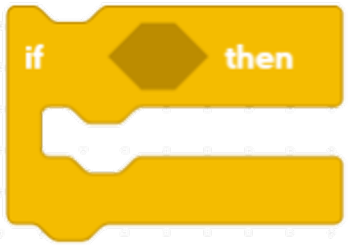


IF THEN BLOCK

BY SANJAY AND ARVIND SESHAN

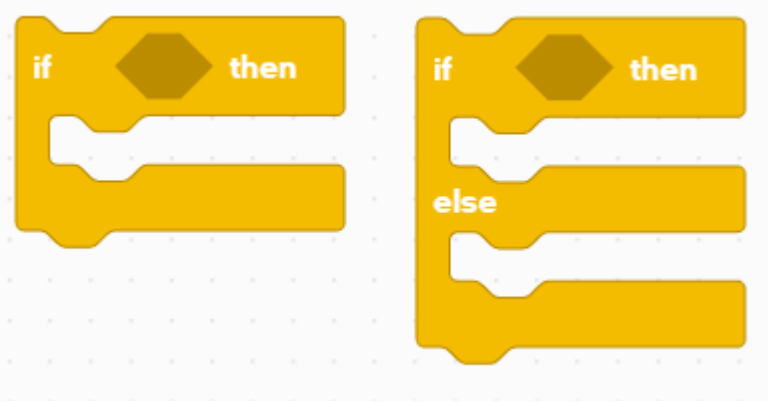
LESSON OBJECTIVES

- Learn how to make your robot decide what to do out of different choices
- Learn how to use an if-then Block



IF THEN BLOCKS

- Asking the robot a question and doing something different based on the answer
- Example:
  - Does the robot see a line? Or not?
  - Is the robot near the wall? Or not?
- It is like a yes/no question

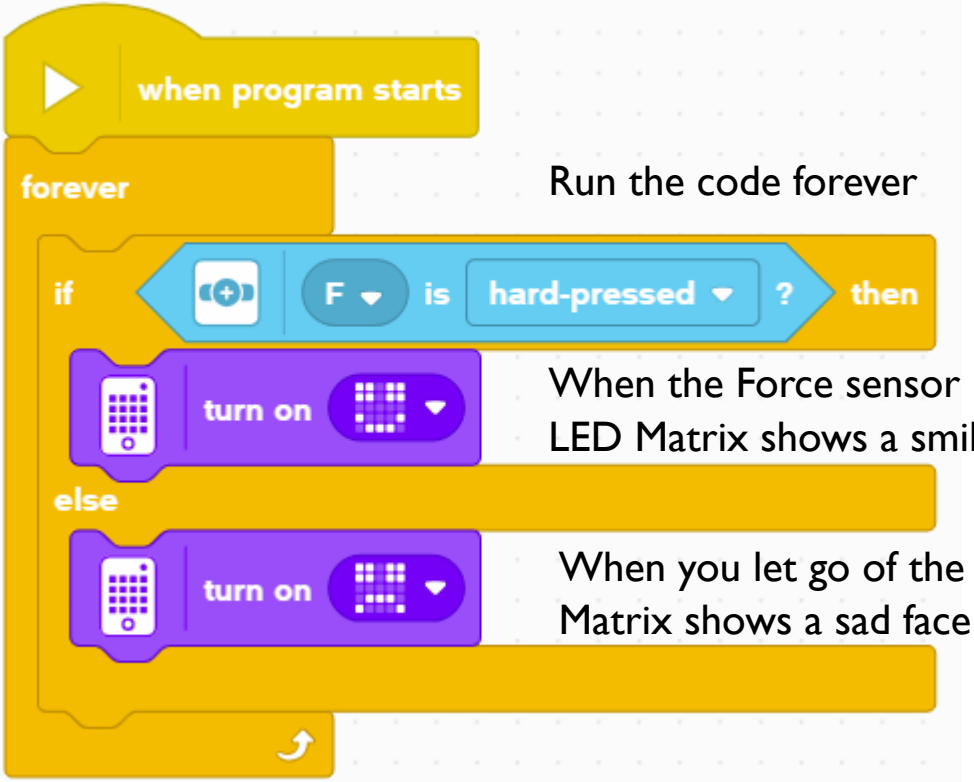


CHALLENGE: HAPPY OR SAD?

- Write a program that changes the display based on if the Force Sensor is pressed or not pressed
- If pressed, your SPIKE Prime is happy. Display a smiley face. On the LED Matrix.
- If not pressed, SPIKE Prime is sad! Display a sad face.
- You will need to use the Light Block, a Repeat Block, and an If-Else block
- You will need to customize the Light Block to create a sad face

- Extensions: Combine what you know and see if you can add a happy laugh when pressed and crying when you stop pressing the sensor. You may have to make some custom sounds.

CHALLENGE SOLUTION



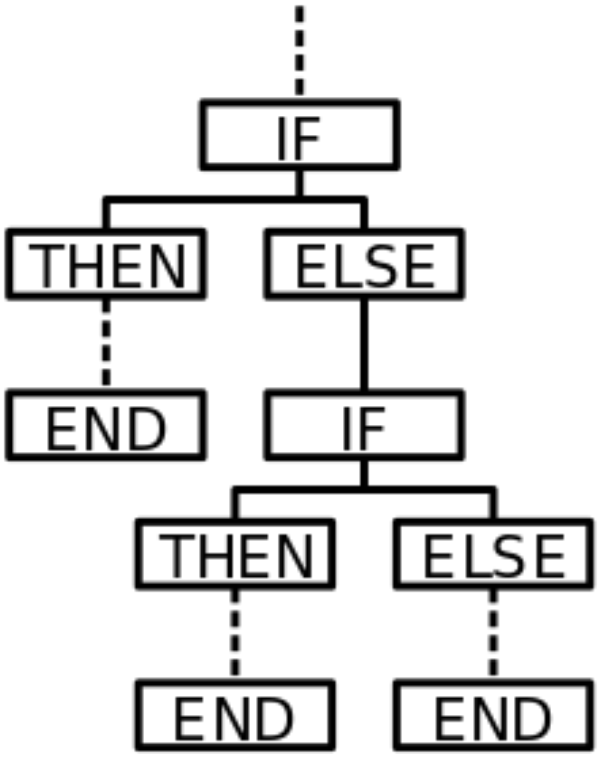
Run the code forever

When the Force sensor is pressed hard, the LED Matrix shows a smiley

When you let go of the Force sensor, the LED Matrix shows a sad face

TAKING IT FURTHER

- If-Else Blocks can be very powerful tools as you create more complex programs
- Think about situations where you might want to nest more than one inside another



CREDITS

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