In this activity, you will program the two wheel drive robot to detect where the object is in front of the robot and move forward, left and right according to the sensor reading.

COMPONENTS
Assembled Robot with 2 IR Sensors connected.

STEP-BY-STEP
1. Start a new PictoBlox program and select evive as the board.
2. Make four blocks to do the following functions:
   a. Go Straight: Both motors will run forward with the speed of 100%.
   b. Turn Left: Motor 1 will run backward and motor 2 will run forward with speed of 100%.
   c. Turn Right: Motor 1 will run forward and motor 2 will run backward with speed of 100%.
   d. Brake: Both motors will stop by locking the motor.

3. According to the logic, the robot should have the following behaviour:
   a. If both the IR sensors detect the object, then the robot should move forward.
   b. Else, if only the left sensor detects the object, then the robot should turn left.
   c. Else, if only the right sensor detects the object, then the robot should turn right.
   d. Else the robot should stop moving.

   One thing you should remember, that when the object is detected, the reading on the digital pin will be 0 and when no object is detected, the reading will be 1. We will program the robot accordingly.
4. Drag and drop when evive starts up block from evive extension.
5. Snap forever block from control palette below when evive starts up block.
6. Snap if then block from control palette inside the forever block.
7. To check the states of the sensors, we'll use the and, and not blocks.
8. For the first case, where both sensors are active, drag and drop the () and () block from the Operators palette in the space in the if arm of the if-else block.
9. Next, take two not () block and drop them into the two spaces of the () and () block.
10. In the first not () block drag and drop the read state of digital pin () block from the evive extension and set the digital pin as 2.
11. Repeat the process for the second not () block; this time, set the digital pin as 3.
12. Drag and drop the Go Straight block below if arm as shown in the main script. Below the else arm of the if-else block, drag and drop another if-else block.
13. Do this for other two cases as well.
14. Switch to Upload Mode and upload the code on evive.
15. Play with the robot.