STEMpedia

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

COMPONENTS

Assembled Robot with 2 IR Sensors connected.

STEP-BY-STEP

1. Start an new PictoBlox program and select evive as the board.

2. Make four blocks to do the following functions:

    a. **Backwards**: 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 backward.
    b. Else, if only the left sensor detects the object, then the robot should turn right.
    c. Else, if only the right sensor detects the object, then the robot should turn left.
    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. You will program the robot accordingly.

4. Make the script using **when evive starts up** block using the logic stated in step 3.

5. Switch to Upload Mode and upload the code on evive.

6. Play with the robot.