

Bluetooth Robots

Have 2 robots, one with an Ultrasonic sensor, and one without it.
Line them up several feet from a wall.

Run the program on the robot with the Ultrasonic sensor:

- Have it say the Communication's sound Hello, set its LED status to Red.
- Wait for the other robot to send a start command before continuing.

Run the program on the robot without the Ultrasonic:

- Have it say the Communication's sound Hello, set its LED status to Red.
- Send a command to the other robot, so the other robot can start.
- Wait for the other robot to send a command to this robot before it can continue.

The robots will now follow this script:

- Reset the motor count on the B and C of each robot's motors.
- Have the robot with the Ultrasonic sensor say the Communication's sound Okey-Dokey and start to move forward.
 - Set it's LED to Green.
- Use the Ultrasonic detector to stop the robot when it is 18 inches from the wall.
 - Play the Communication's sound Go.
- Once the sound has ended, send via Bluetooth the motor rotation count of motor B to the other robot.
- Have 2nd robot play the Communication's sound Okey and turn it's LED to Green.
- Have that robot move its motors the same number of rotations (so that it will stop at the position of the other robot).
- Once this robot reaches the position of the other robot, play the Communication's sound Fantastic (on the robot that has the Ultrasonic sensor).
- The have both robots in unison, roll back to their starting point. Once they reach their starting point, play on both robots the Communication's sound Bravo.

On paper, draw out a layout (state machine) to help guide you as to what each robot will do. Go over this with me before you program the robot. Be sure you have tested the simple Bluetooth program from the previous class.