

ROBOLAB

Look at the following program:

1. Explain the what the robot should do, indicating power, time and direction of rotation or movement.
2. Make a list with all the sensors and actuators connected to every port.

Remarks: an arrow pointing **left** in a motor means moving **forwards**.

The image displays two screenshots of the RoboLab PILOT software interface, showing the configuration of a robot program in two steps.

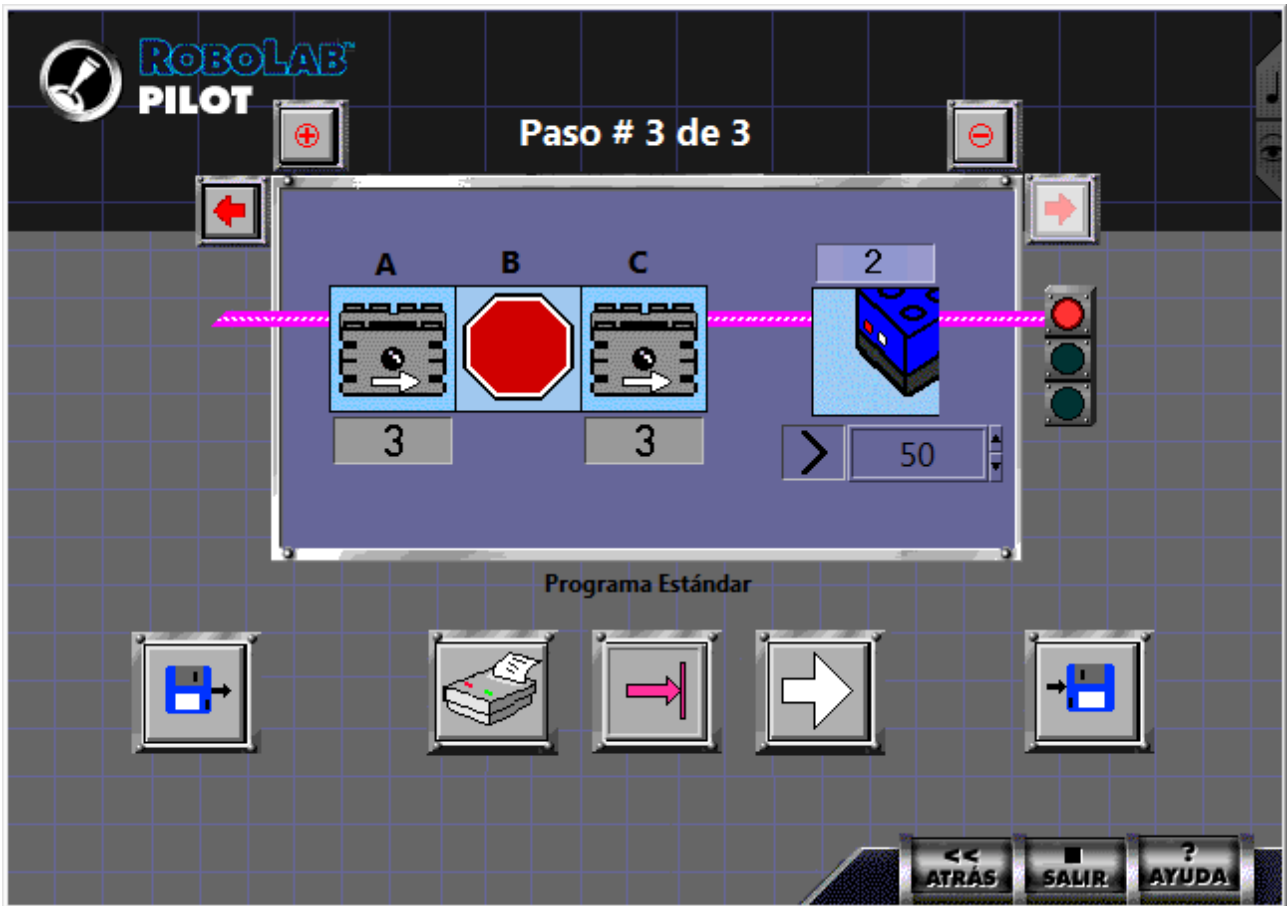
Step 1: Paso # 1 de 3

The interface shows a robot configuration window with three ports labeled A, B, and C. Port A is connected to a motor with a left-pointing arrow and a value of 3. Port B is connected to a red octagonal sensor. Port C is connected to a motor with a left-pointing arrow and a value of 3. A yellow sensor with a question mark is connected to the right side of the robot, with a value of 6,0. The configuration is labeled "Programa Estándar". Below the configuration window are five icons: a blue square with a right arrow, a stack of papers, a pink arrow pointing right, a white arrow pointing right, and a blue square with a left arrow.

Step 2: Paso # 2 de 3

The interface shows the same robot configuration window. Port A is connected to a motor with a left-pointing arrow and a value of 2. Port B is connected to a white sensor with a value of 5. Port C is connected to a motor with a right-pointing arrow and a value of 2. A white sensor with a value of 1 is connected to the right side of the robot, with a left-pointing arrow. The configuration is labeled "Programa Estándar". Below the configuration window are the same five icons as in Step 1.

At the bottom right of the interface, there are three buttons: "ATRÁS" (Back), "SALIR" (Exit), and "AYUDA" (Help).



SOLUTION:

- The robot will work as follows:
 - Step 1: It moves forwards (power 3) for 6 seconds.
 - Step 2: It turns right (power 2), the light is on (power 5), until the switch is pressed.
 - Step 3: It moves backwards (power 3) until it finds a lighter surface.
- List of sensors and actuators connected:

ports					
1	2	3	A	B	C
switch	light sensor		motor	light bulb	motor