



Writing Pilot Level 4 Programs

Add (+) a step after the current one, or remove (-) the current step

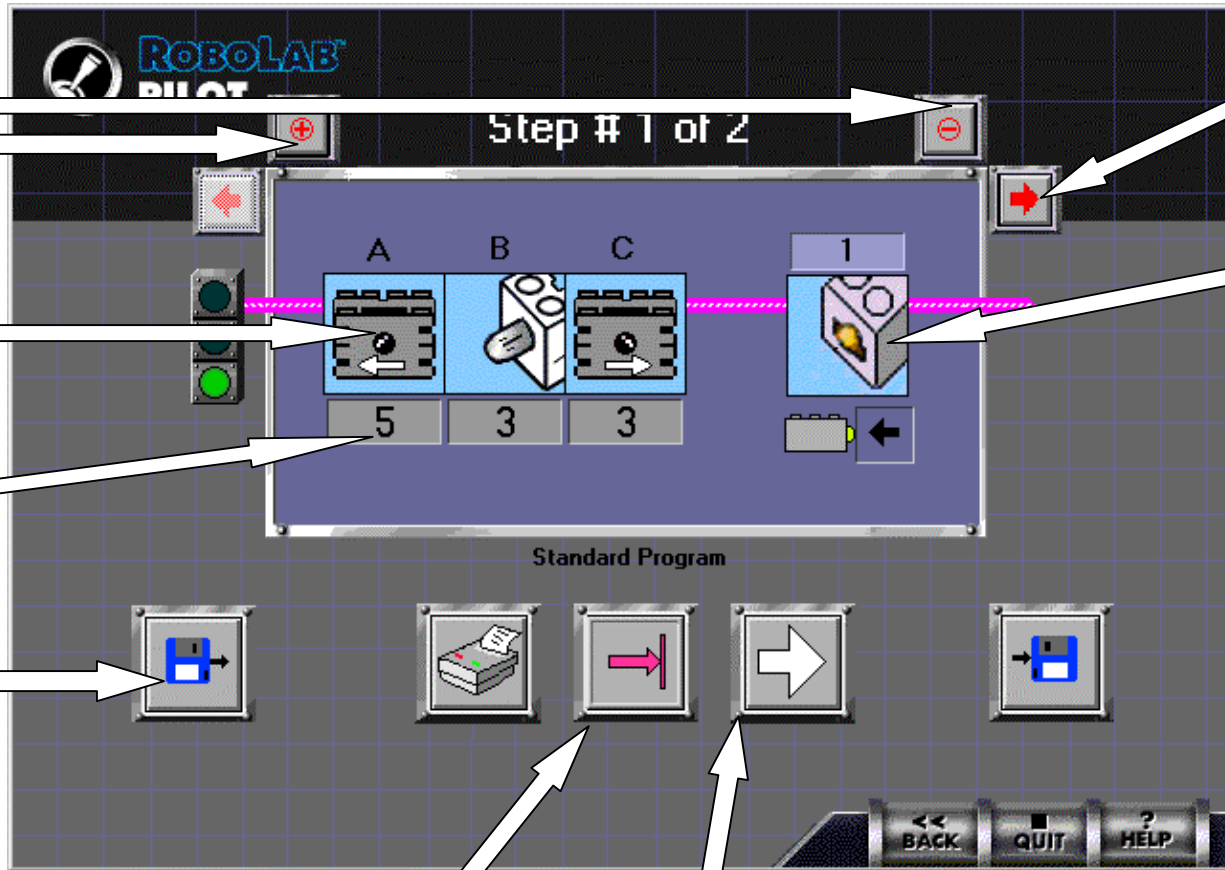
You can control lights or the direction of motors, as well as their power, on any of the three output ports, in as many program steps as you need

You can control the power of a motor here. 1 is low power, 5 is high power.

You can load and save programs using the floppy disk icons

Choose whether the program runs through each step and then stops or whether it loops back to the beginning of the program and starts again each time the final step is completed

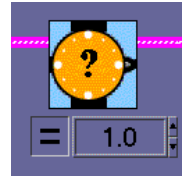
Pilot Level 4 allows you to write a program with as many program steps as you require. In each step, you can control any or all of the RCX outputs. A step ends when a particular event happens, such as a touch sensor being pressed, a certain amount of time elapsing, or a light sensor reading passing a particular threshold value.



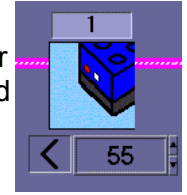
Move on to view the next step

Wait until something happens before moving on to the next step. For example, wait either:

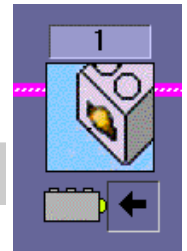
- a random or specified period of time



- until a light sensor reading is greater or less than a specified percentage



- until a touch sensor is released or pressed



Click here to download the program to the RCX brick - make sure the brick is turned on and facing the tower.

Exercises

Make a two wheeled robot, with a separate motor driving each wheel, and a bumper on the front of the robot that activates a touch sensor. See if you can write a program which drives the robot forwards until it bumps into something, and then drives it backwards for 2 seconds. Now add another step so that after reversing, the robot turns for 2 seconds. Set up your program so that the steps continually repeat. Does your robot do what you expected?

Change the program so that the robot turns for a random amount of time.

Finally, write a program with eight steps that gets your robot to do a little dance. Try to think about what you want your robot to do before you write the program.