# Day 1: Building Your Robocar

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### Instructions

##### Building the Robot

1. Find out whether you have an NXT 1.0 or NXT 2.0 robot. To do this, look at the tires available for your robot.
   * NXT 1.0 Tires are bumpy:



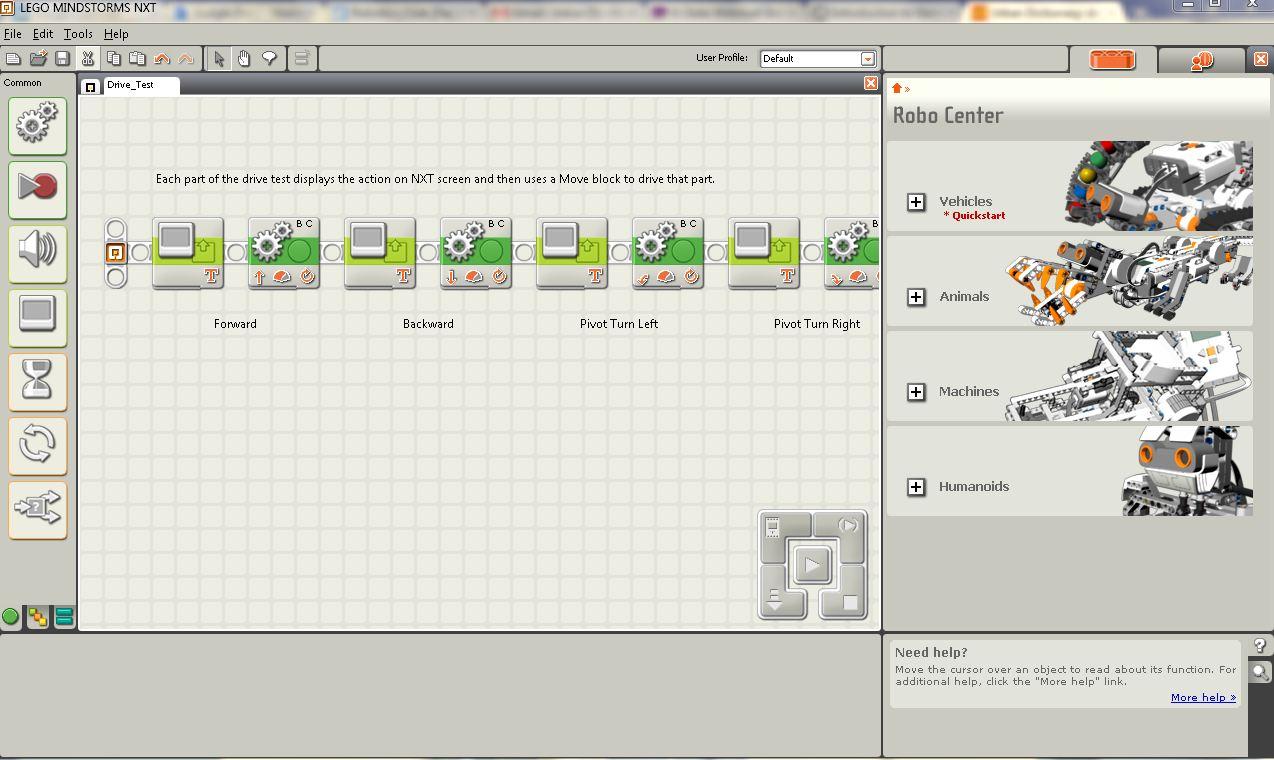
* + NXT 2.0 Tires are flat and smooth:

Image Copyright © chauromano of flickr.com

1. Build you robot using the online instructions below:
   * For NXT 1.0, go to <http://www.nxtprograms.com/five_minute_bot/steps.html> and follow the steps to build the five-minute bot.
   * For NXT 2.0, go to <http://www.nxtprograms.com/NXT2/five_minute_bot/steps.html>and follow the steps built the five-minute bot.

##### Testing the Robot

1. Download the five-minute bot drive test program Drive\_Test.rbt by clicking on this link: <http://www.nxtprograms.com/programs/Drive_Test.rbt> .
2. When Drive\_Test.rbt finishes downloading, click on it to open it using the Lego NXT software.
3. Once the NXT software finishes loading, your screen should look like this:



1. Next, Plug your robot into the computer using the USB cable.



1. Turn on the robot by pressing the big orange button on the robot.



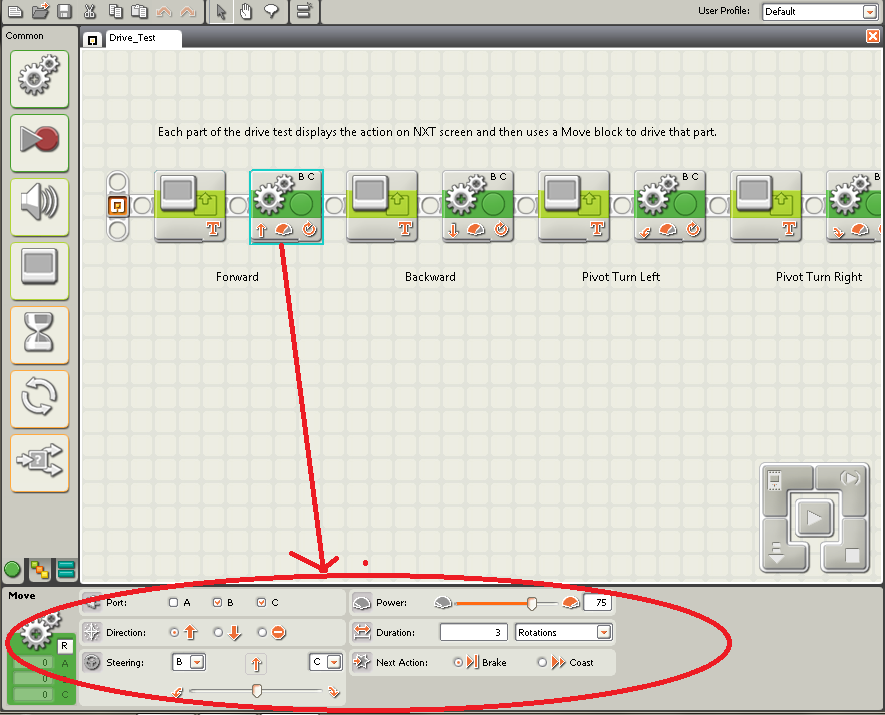
1. Press the download button in the NXT software to download Drive\_Test.rbt to your robot.

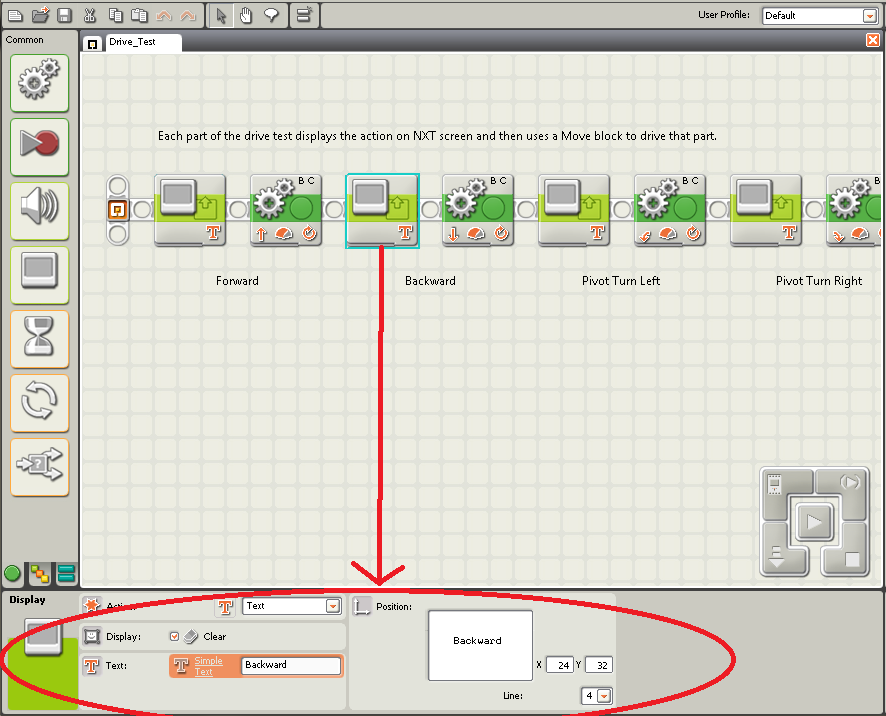


1. Unplug your robot from the computer and set in on the floor.
2. On your NXT robot, use the buttons to go to My Files > Software Files > Drive\_Test and then run Drive\_Test.
3. Your robot should automatically move forward, backward, left, and right.
4. You are done, but there is extra fun below.

##### Extra Fun

1. If you finish before the end of class, try changing different things in Drive\_Test.rbt and re-running the program to see what happens. (See the pictures below for ideas on what can be changed)





### Trouble Shooting

##### Trouble Downloading to the Robot

If you are having trouble downloading to the robot, trying turning the robot off and then turning it back on again.

##### Deleting a Command Block

To delete a block, select the block and press the Delete key.

##### Not Enough Room To Add More Block

Use the arrow keys to scroll left or right for more room.



##### 

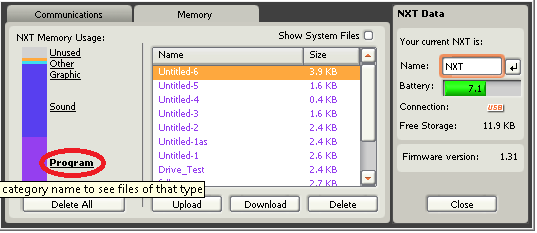
##### Out of Memory Error

To fix the “The NXT device is out of memory” error:

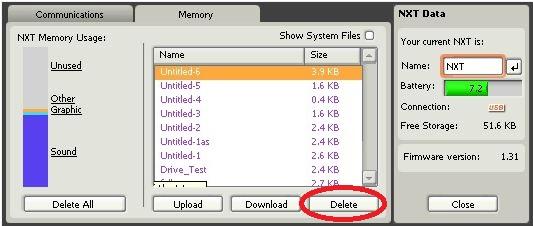
1. Click the Manage Files button.



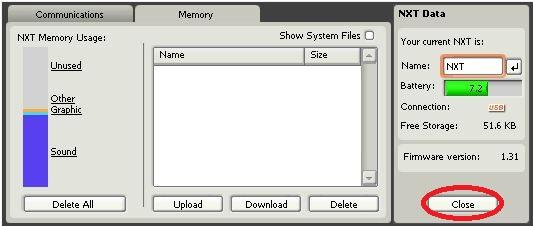
1. Click on Program.



1. Use the Delete button to delete all the unneeded programs



1. Close the box



1. Everything should work fine now