

## Setup

## Download Program

Your robot is ready to go! All that's left is for you to tell it what to do by sending it a program. A program is a set of commands that tell the robot what to do and how to react to its environment. Once written, a program must be transferred ("downloaded") to the robot before it can be run.

This is the program you will download onto the NXT.

```

1  task main()
2  {
3
4  motor[motorC] = 100;
5  wait1Msec(3000);
6
7  }

```

**1.** Normally, you would type this program directly into ROBOTC. For your convenience, however, there is an already-completed copy provided in the Sample Programs folder. Follow the steps below to open this program.

**1a. Open Sample Program**  
Select File > Open Sample Program to find the saved program.

**1b. Select Training Samples**  
Open the Training Samples folder to find the "MotorC Forward" saved program.

**1c. Select the program**  
Select the "MotorC Forward" program from the Training Samples Folder.

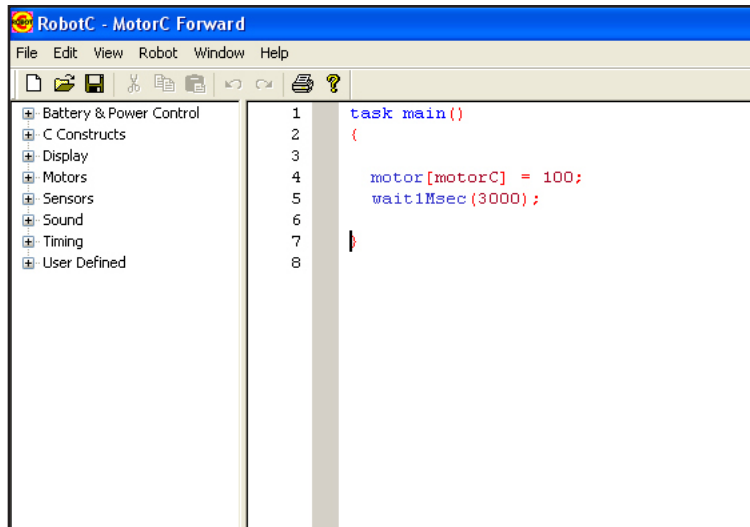
**1d. Open the program**  
Press "Open" to open the saved MotorC Forward program.

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### Checkpoint

The program should appear in the right-hand pane of the window.

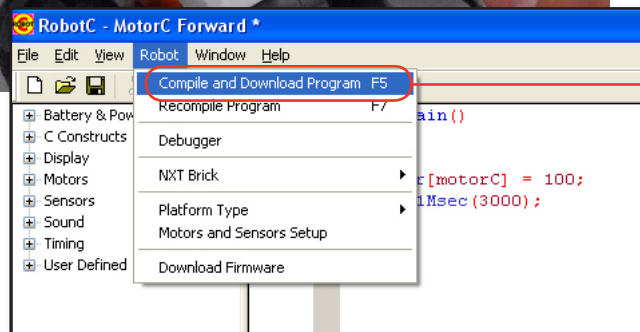


2. Download the program to the robot by first turning it on, then using the "Compile and Download" command from the "Robot" menu.



#### 2a. Turn NXT on

Press the orange square on your NXT brick if it is not already on.



#### 2b. Compile and Download

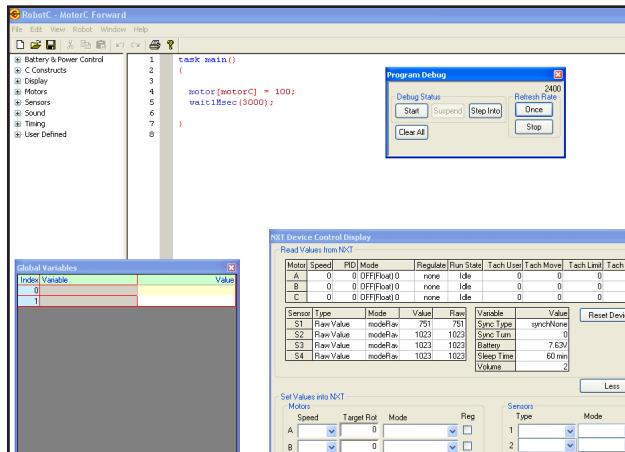
Select Robot > Compile and Download Program to download the MotorC Forward program.

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### Checkpoint

Several new windows should appear. If you get an error, make sure that the robot is turned on and plugged in to the computer with the USB cable, then try again.

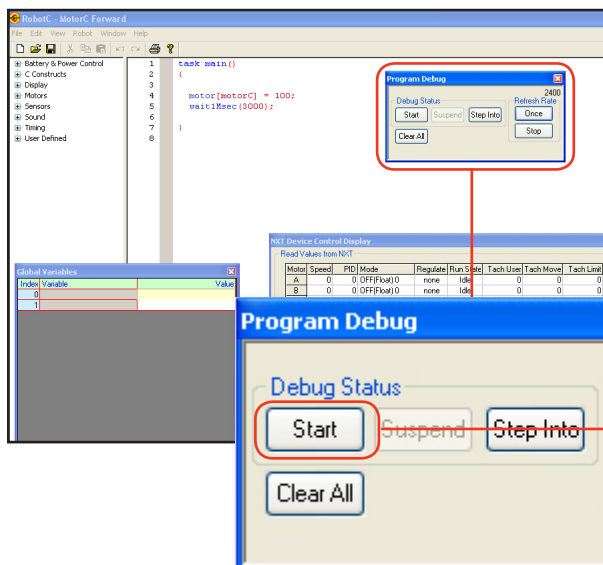


- Place the robot on an open area on the floor or table. In the Program Debug window, press the button labeled "Start". The ROBOTC debug windows appear when the download is complete.



#### 3a. Place robot

Place the robot in an open area, on the floor or table, with the USB cord connected.



#### 3b. Select "Start"

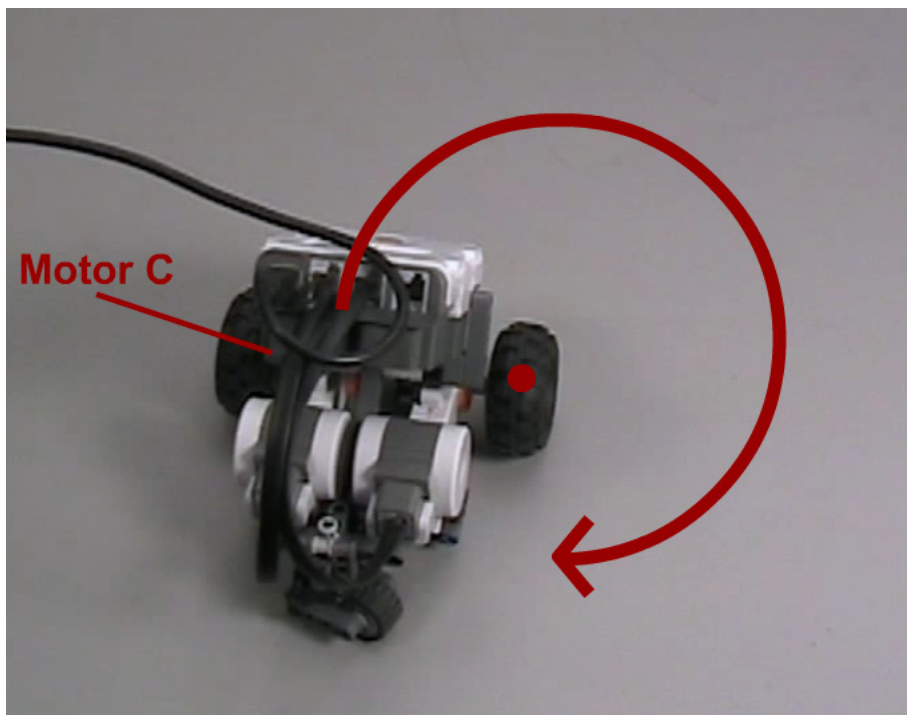
Select the "Start" button to run the MotorC Forward program.

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### Checkpoint

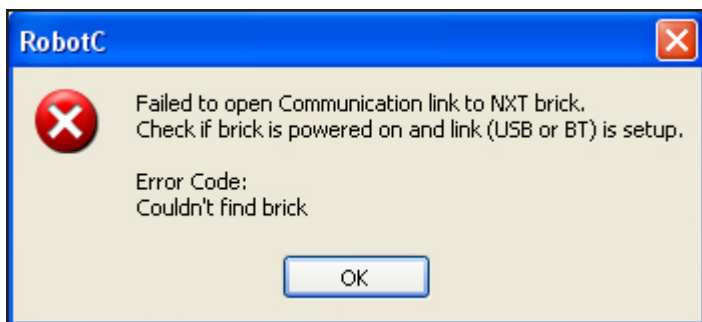
The program we just downloaded told the robot to run one of the motors for three seconds. This causes the robot to move in a circle or perform a pivot turn.



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If you get an error, make sure that the robot is turned on and plugged in to the computer with the USB cable, then try again.



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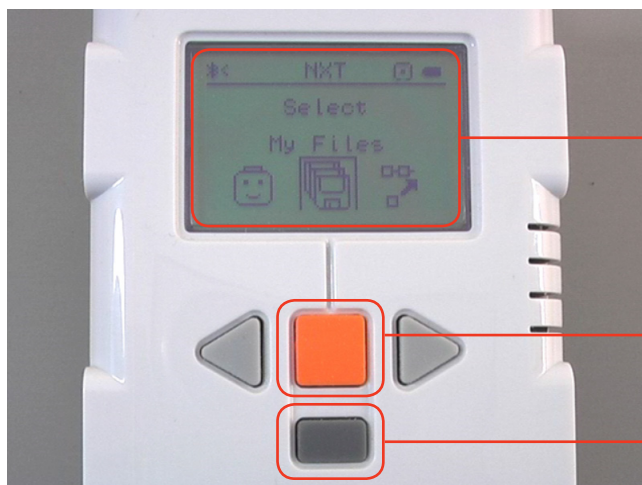
### End of Section.

The program must be loaded onto the robot while it is plugged in to the PC, but it can run either attached, or unattached.

To run it unattached, first unplug the USB cable.



Make sure your NXT is on, and take a look at your robot's screen. You should be seeing the main menu, and "My Files" should be displayed. Press the orange button.



#### **Go to the Main menu**

Highlight "My Files".

#### **Press the orange button**

Press the orange button to go into the "My Files" menu.

#### **Return to the Main menu**

Pressing the dark gray button a few times will take you back to the Main menu.



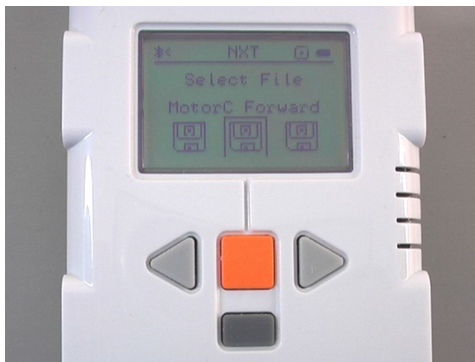
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### Select "Software Files"

Press the orange button again to go into the "Software Files" menu.



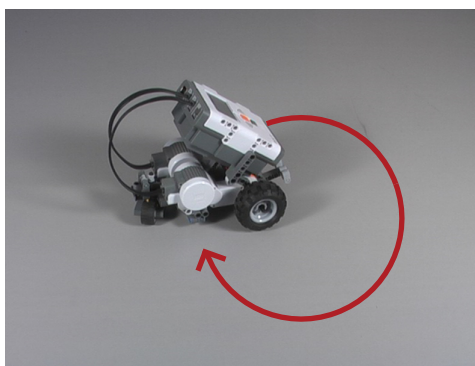
### Select your program

Navigate to your program using the right and left arrow buttons. When you find the name of your program, press the orange button.



### Run the program

Press the orange button one more time to run the program.



### Observe the robot

The robot should now move in a circle.