

# Getting Started with Robot Virtual Worlds

## Step One - Download ROBOTC 3.0

Robot Virtual World software only works with ROBOTC 3.0. You can download a 30 day trial at [www.robotc.net/rvw](http://www.robotc.net/rvw). Two example RVWs are included in the ROBOTC 3.0; the Classic Table and the Grand Challenge. You can download all RVW software examples at the same site.

### Required Downloads (Robot Virtual Worlds "Engine")

If you do not have ROBOTC 3.0 installed, you must download one of the following required Robot Virtual Worlds installers.



Download Robot Virtual Worlds  
for LEGO MINDSTORMS



Download Robot Virtual  
Worlds for CORTEX & PIC

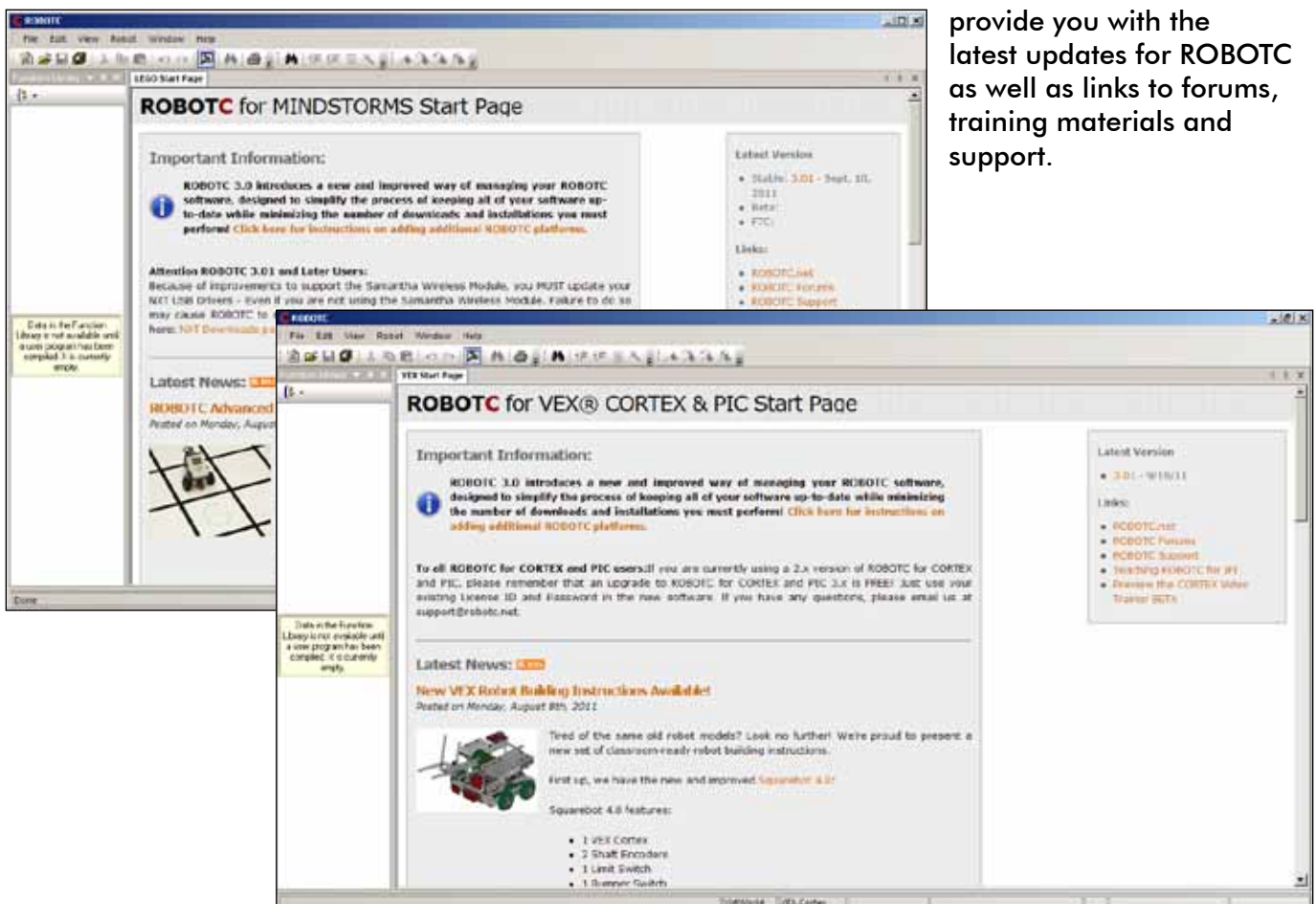
Already have ROBOTC 3.0 installed?

DO NOT install any of these downloads. [Click here for more instructions >>](#)

## Step Two - Install and Open ROBOTC 3.0

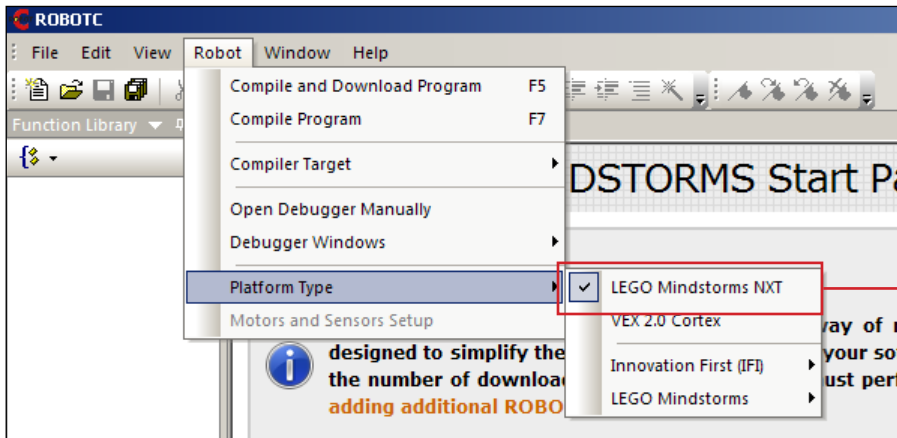
Pictured below are the opening screens for ROBOTC for Mindstorms and ROBOTC for VEX CORTEX and PIC Start Pages. If your computer is connected to the Internet the start pages will

provide you with the latest updates for ROBOTC as well as links to forums, training materials and support.

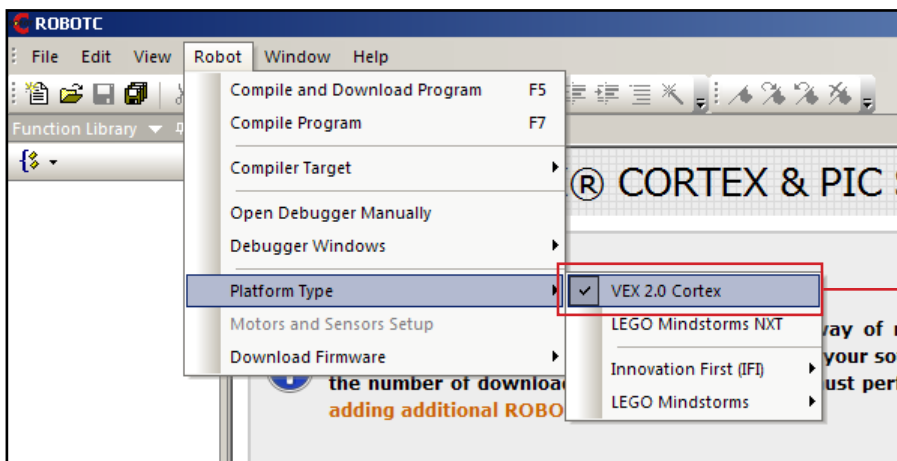


## Step Three - Select your robot Platform Type

ROBOTC works on multiple platforms and needs to know what platform that it will target.



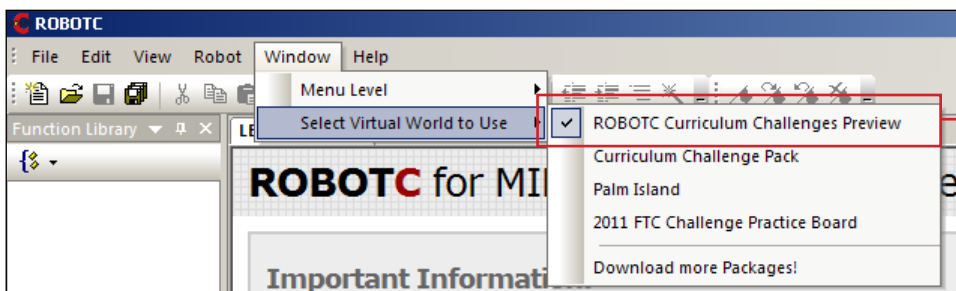
The checkmark at the left shows that the LEGO MINDSTORMS NXT platform has been selected.



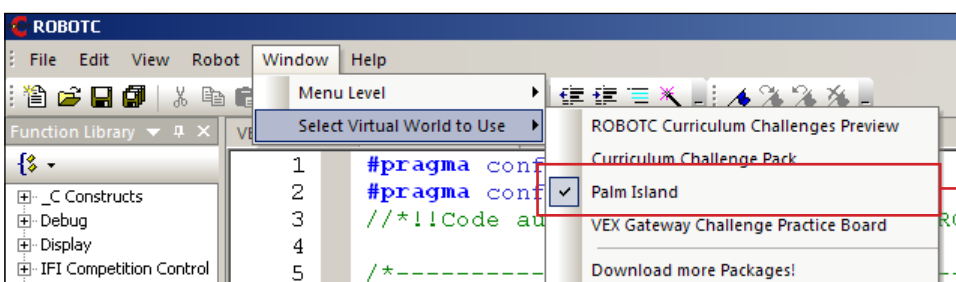
The checkmark at the left shows that the VEX 2.0 Cortex platform has been selected.

## Step Four - Select the Robot Virtual World

With our initial release you have access to over 40 RVW programming challenges. When you download the new RVW "Level Pack" ROBOTC will automatically add the new RVW into the "Select Virtual World" menu.



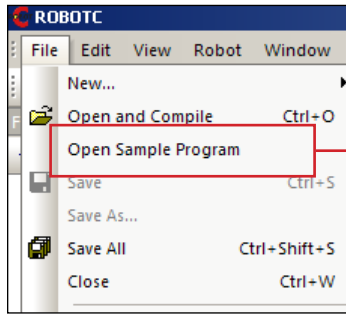
The checkmark at the left shows that the ROBOTC Curriculum Challenge Preview has been selected.



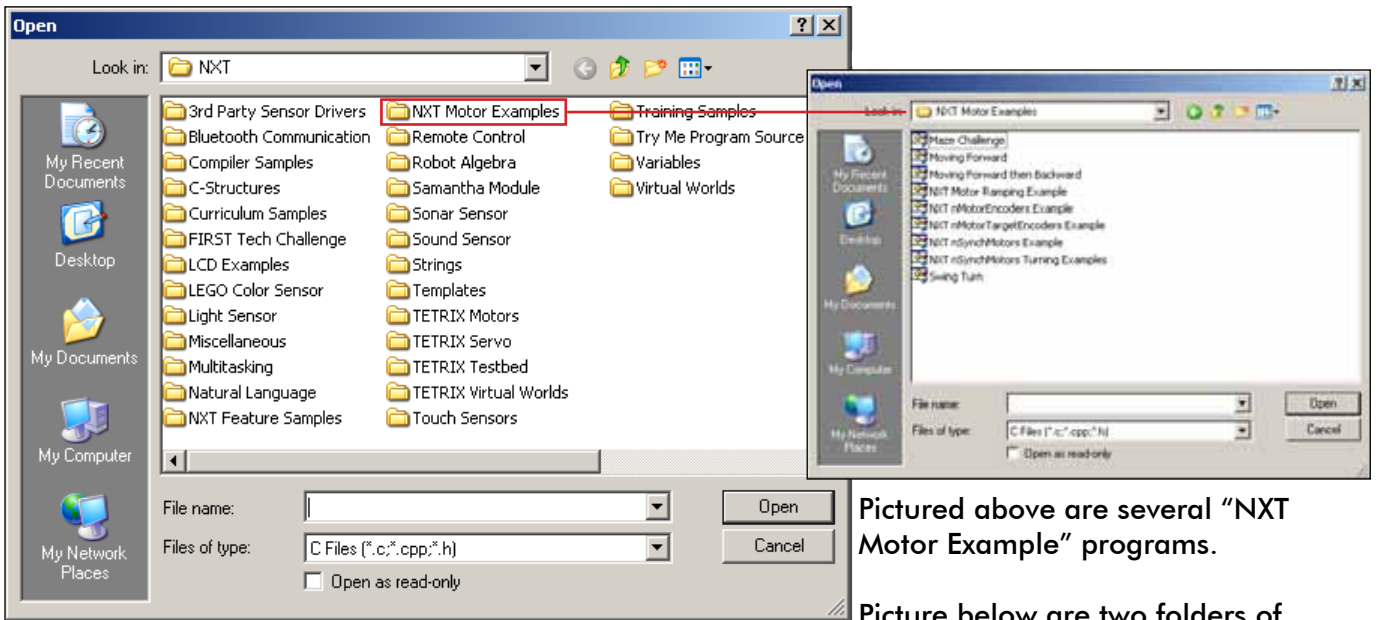
The checkmark at the left shows that Palm Island has been selected.

# Step Five - Open a Sample Program

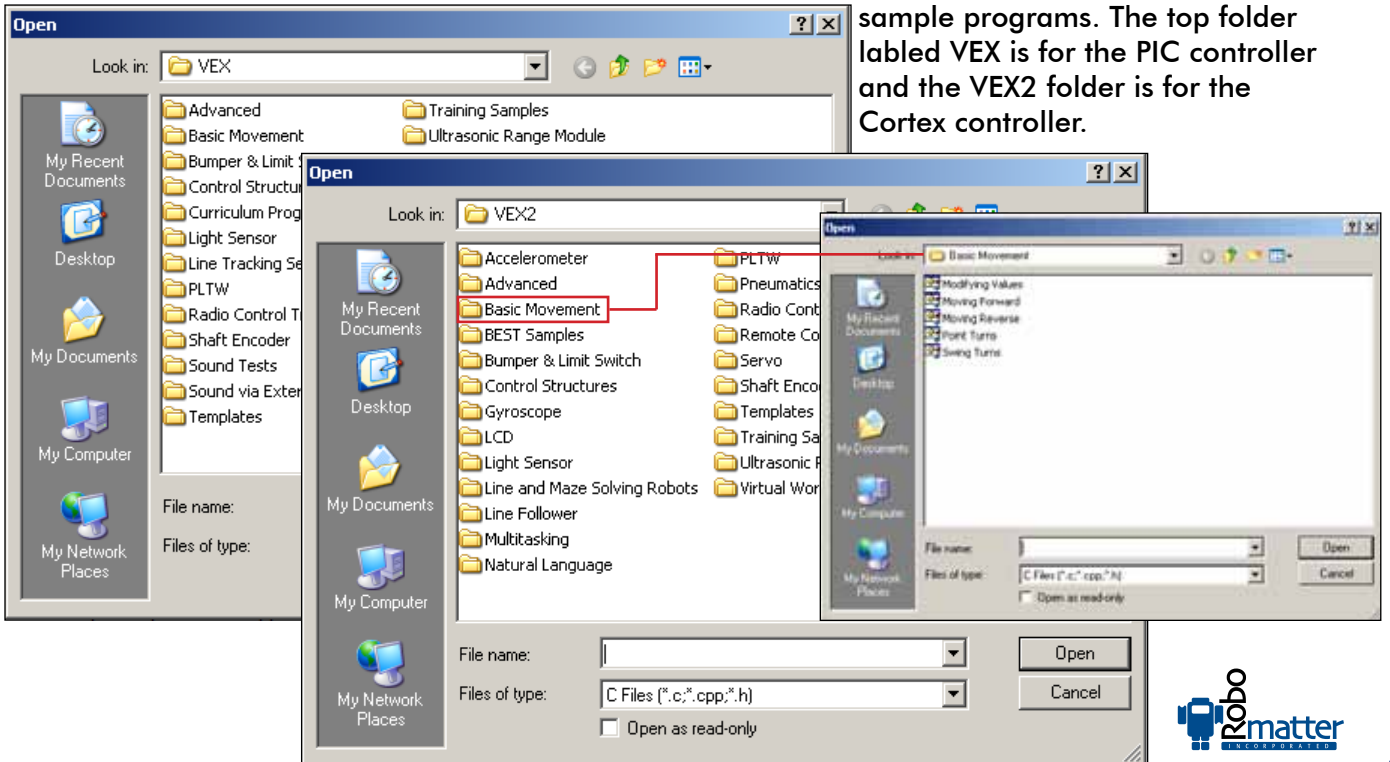
ROBOTC 3.0 contains over 100 fully commented example programs enabling you to begin programming the RVW immediately.



Select Open Sample Program and a menu with folders will open like what is shown below. Each folder contains fully commented sample programs.



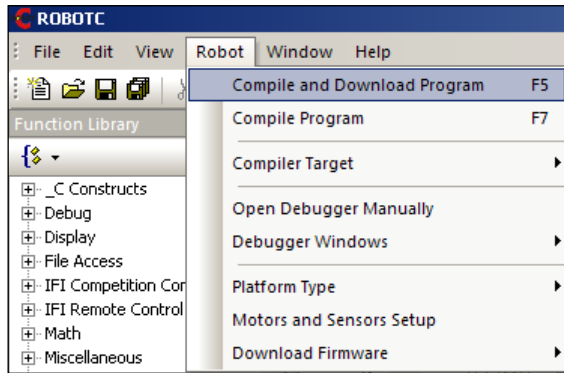
Pictured above are several "NXT Motor Example" programs.



Picture below are two folders of sample programs. The top folder labeled VEX is for the PIC controller and the VEX2 folder is for the Cortex controller.

# Step Six - Download the program to the Virtual Robot

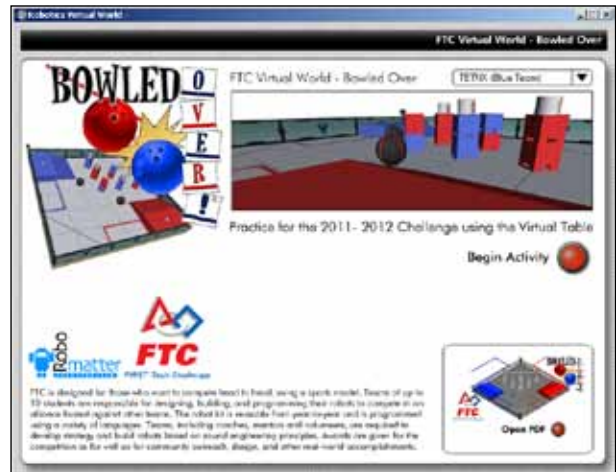
Select Robot/Compile and Download Program or press F5 to upload the software to the robot.



ROBOTC Curriculum Challenges Preview - contains two sample RVWs.



ROBOTC Curriculum Challenges Pack - 30 programming challenges that align with the challenges in the ROBOTC curriculum.



Above - Bowled Over 2011 FTC Robotics Challenge  
Below - VEX Gateway Challenge

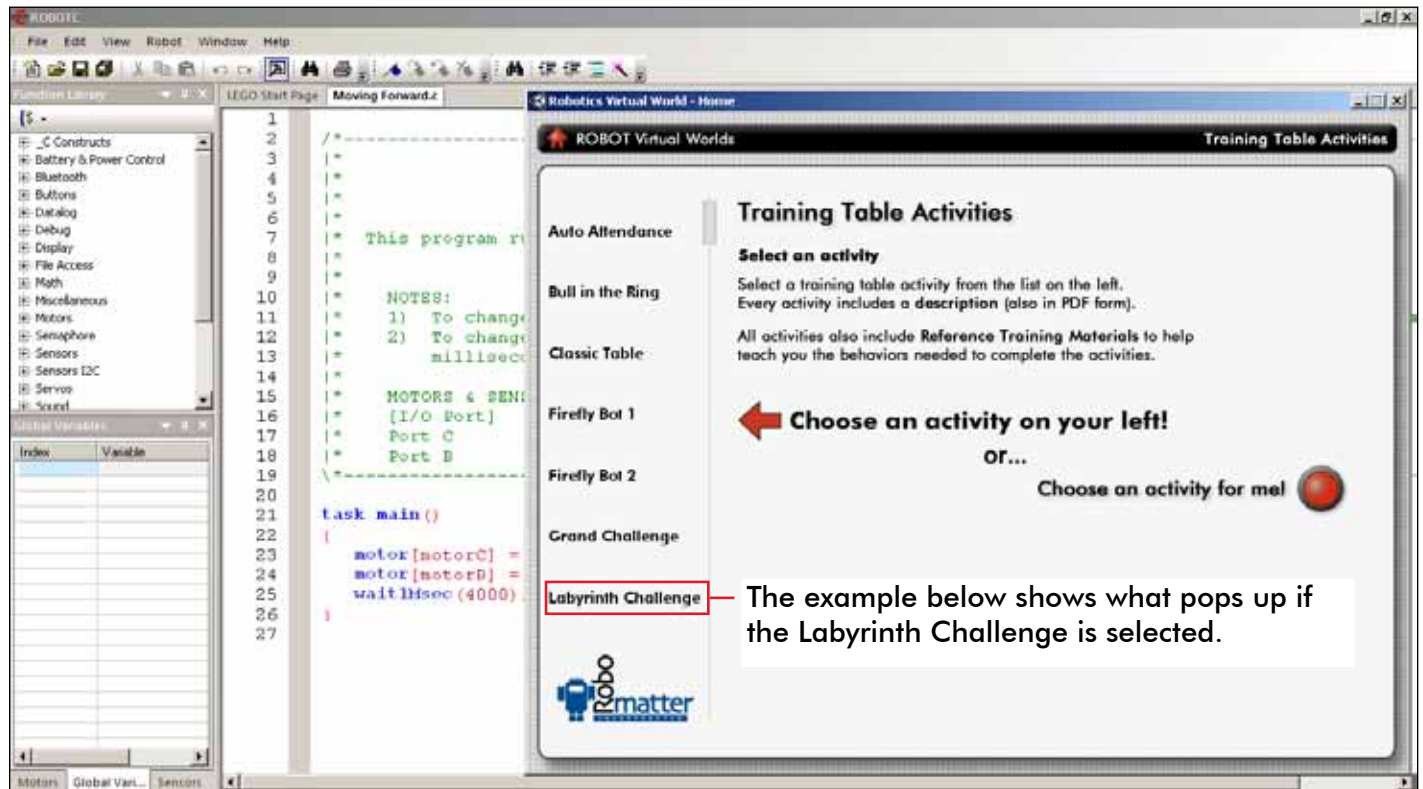


Palm Island - the first of six island challenges that will be released this year. Other challenges that we've modeled and release include an Ice World, Desert World, Cave World, Underwater World, Future World, and Planet H99.

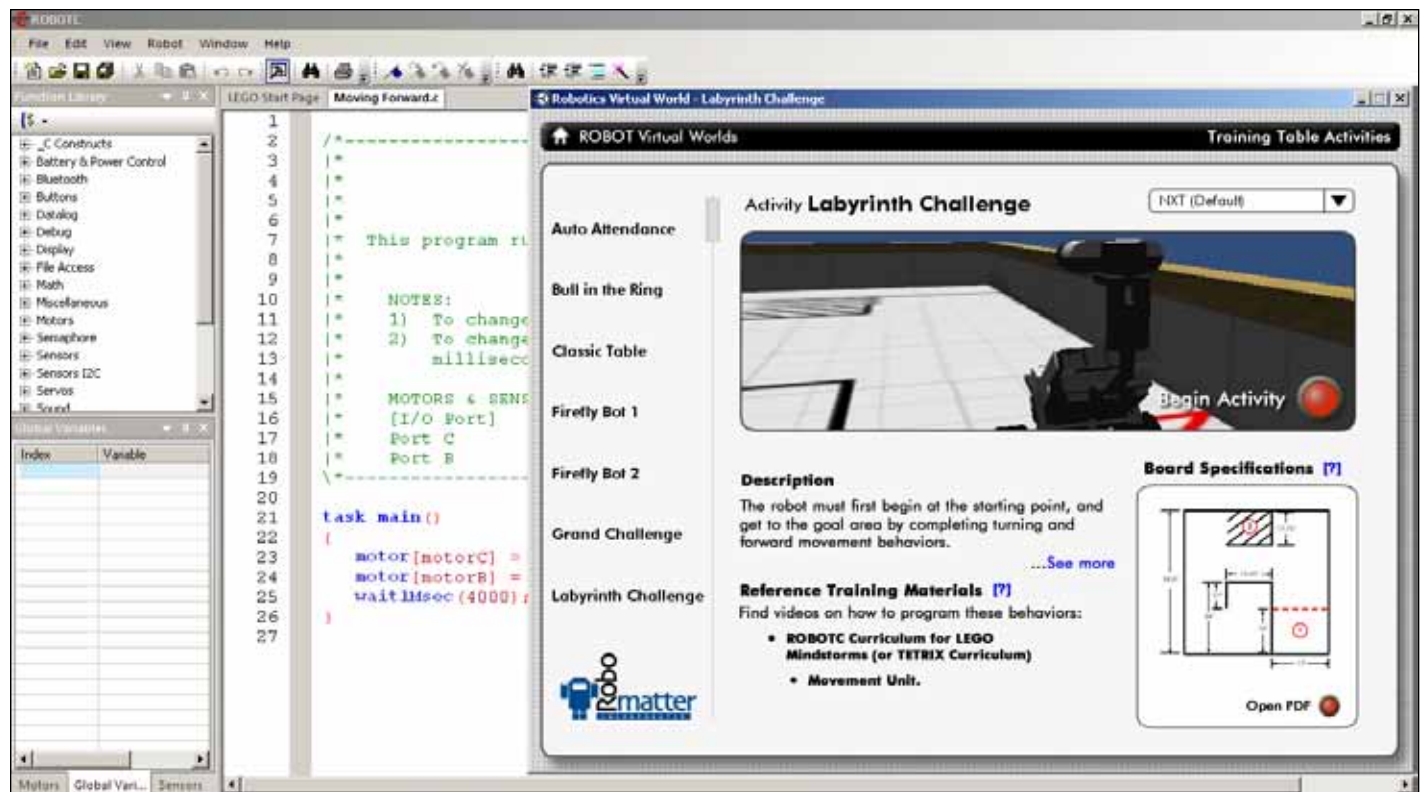


## Step Seven - Select the RVW that you want to challenge

Pictured directly below is a screen shot of ROBOTC 3.0 and the new RVW interface. If ROBOTC is configured correctly then the RVW automatically pops to the front of ROBOTC as shown below allowing students to test their robots using the RVW simulator.

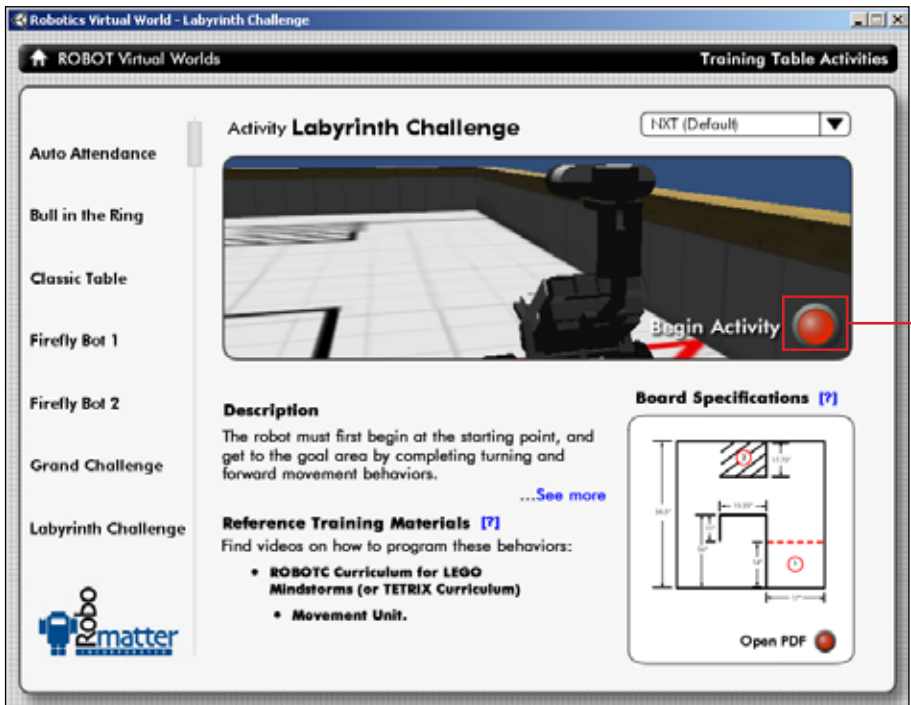


Once the challenge is selected the user will find a picture that shows a part of the challenge, a description of the challenge, where to find reference materials, and a link to a PDF that describes the challenge.

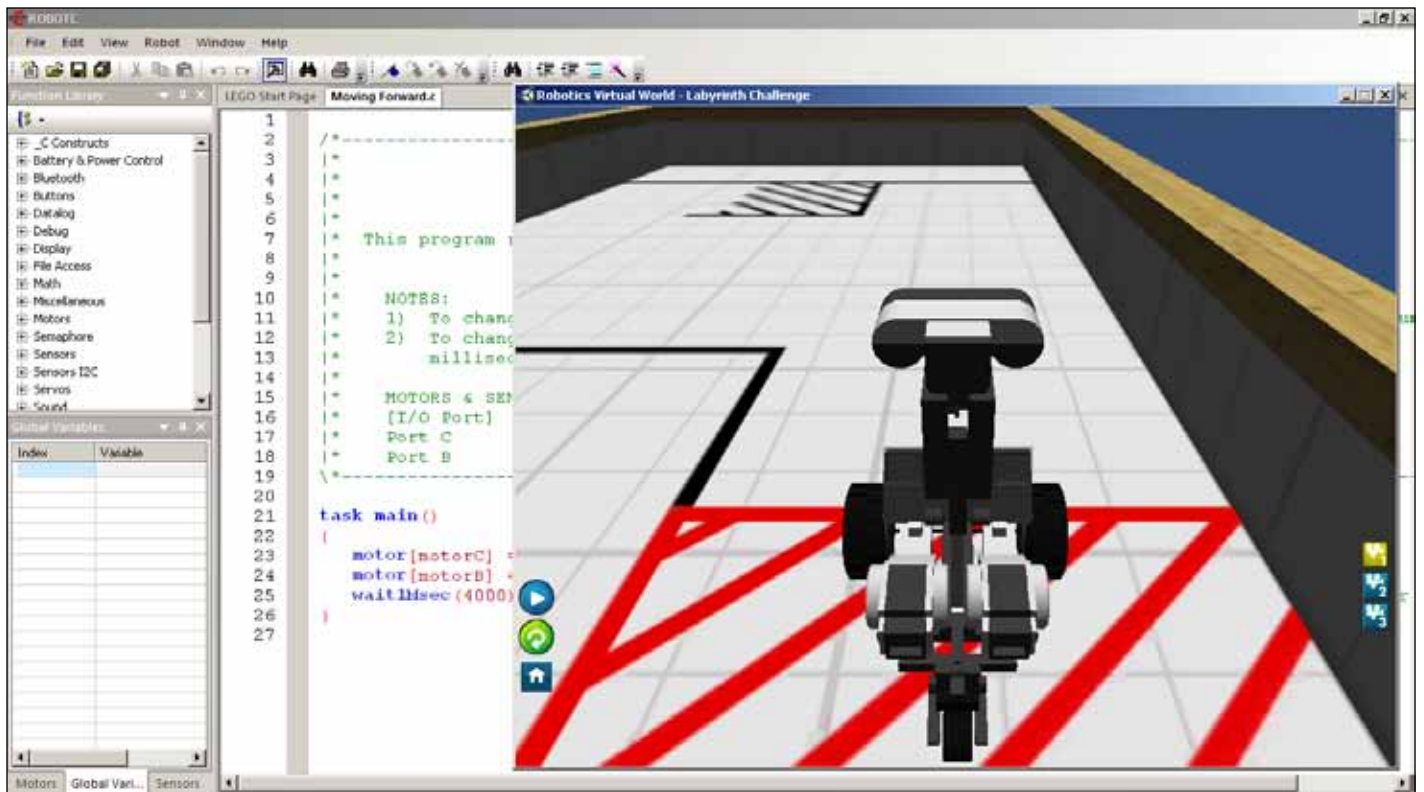


# Step Eight - Select Begin Activity

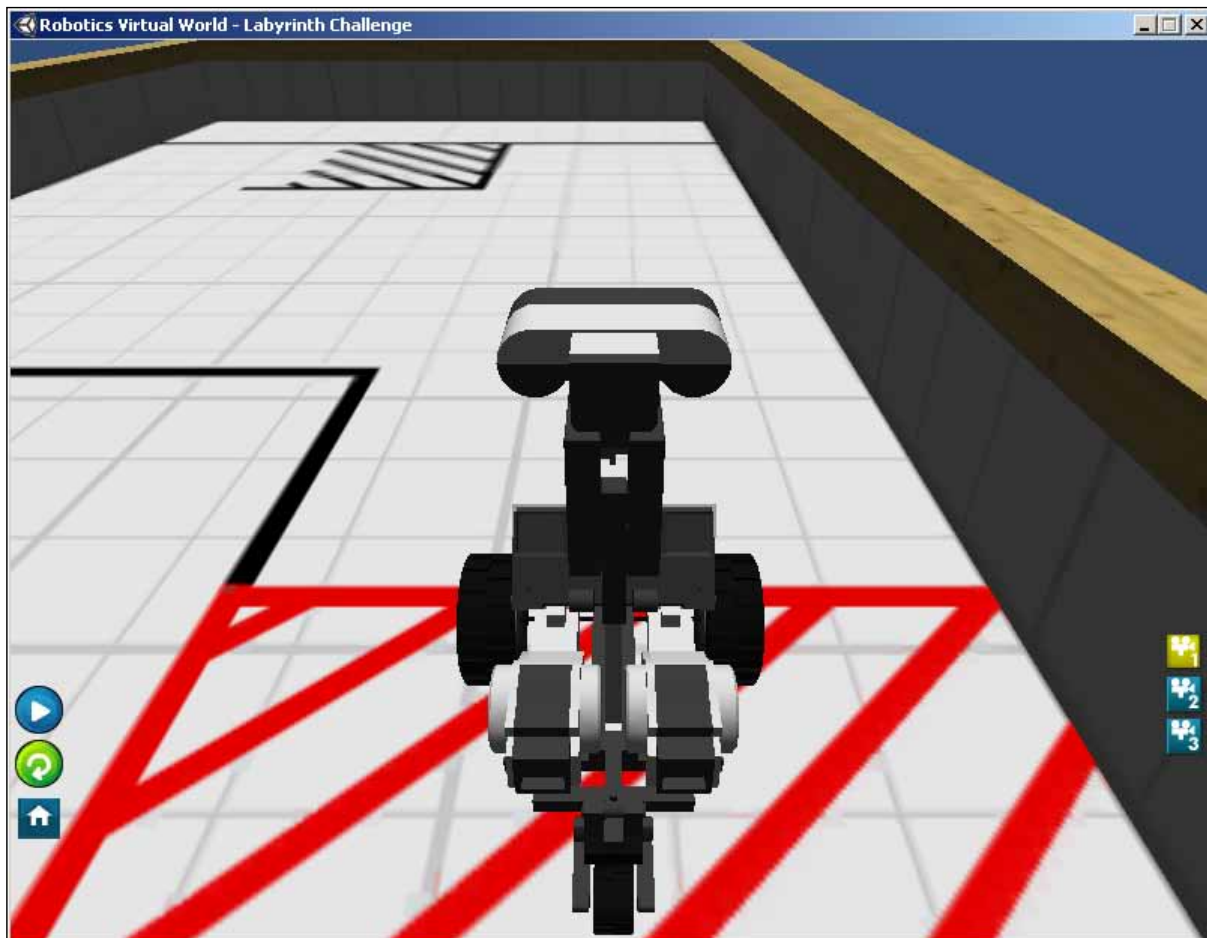
To run the code select Begin Activity. Shown below is the RVW simulation screen.









Select Begin Activity



## Step Nine - Using the RVW Simulator Interface



-  — Press the blue arrow button to execute the code.
-  — Press the "Green Return" button to restart the robot.
-  — Select the "Home" button to return to the challenge selection menu.

-  — Camera 1 Over the robot's shoulder, use mouse to adjust.
-  — Camera 2, Top down fixed view.
-  — Camera 3, User defined by scrolling the mouse.