Megamark RobotC Setup Guide

ROBOTC is a cross-robotics-platform programming language for popular educational robotics systems. This tutorial will show you how to set up core RobotC for Arduino software to program the Choitek Megamark Robot Platform.



NOTE: Unlike the other software libraries, using RobotC to program the Choitek Megamark robot requires use of a special kind of Arduino, specifically the **Arduino Mega 1280**, shown below:



Keep in mind that the standard, newer Arduino Mega 2560 is not compatible with RobotC due to the fact that it does not have an onboard **FTDI converter, which RobotC requires.** Although the Arduino Mega 1280 is deprecated and is no longer manufactured by the official Arduino organization, other sources produce clones for the Arduino Mega 1280 board which are still available.



Downloading and Installing ROBOTC for Arduino





(If you have not done so already, it is highly recommended that you also install the latest version of the Arduino IDE as well according to the steps in the **Megamark Arduino Setup Guide**.)

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Running ROBOTC for Arduino to control the Megamark

Step 3: Go ahead and download the Megamark Library for ROBOTC, which can be found on Github or the main Choitek website. Extract it and place the examples in your desired location.

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Step 4. Go to File->Open and Compile and open elbows.c from the Megamark RobotC examples.

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Step 5. Select the Board type by going to Robot->Platform Type->Arduino Types->Standard Arduino->Arduino Mega:

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Step 6. Attach your Megamark robot via USB to your computer and select the COM Port by going to View->Select Communication Port:

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Step 7. Flash the RobotC firmware by going to Robot->Download Firmware->Standard File (Arduino_Mega_0968.hex):

(Note: You only need to do this once.)

Step 8. Compile and download the program by going to Robot->Compile and Download Program:

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(Note: Make sure all of your code syntax is correct! If not, the program will fail to load onto the Arduino Mega.)

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Step 9. Finally, run the program by clicking on the Start button in the Program Debug dialog that pops up:

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Step 10: Your robot will now play the RobotC script continuously until the script closes. If you were running the <u>elbows.c</u> script, the robot should now be happily moving its elbows in a continuous up and down motion! Be sure to try out the other examples to get a more comprehensive sense of how to program the Megamark robot using RobotC.



That was pretty easy wasn't it? Now go out there and make some code of your own like the awesome robotics engineer you know you are!

