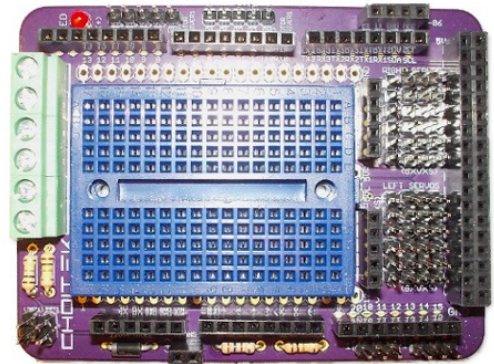
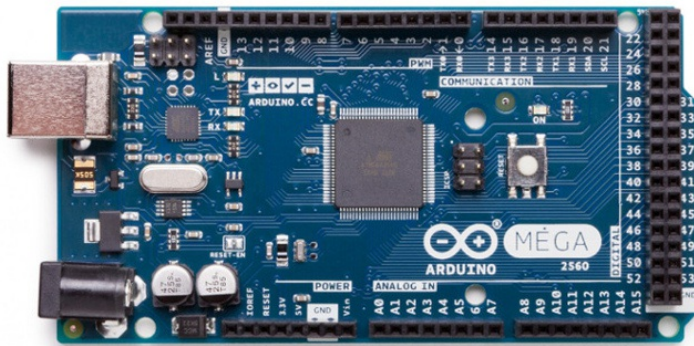


Megamark Arduino Setup Guide

At its core, the Choitek Megamark is controlled by an Arduino Mega 2560 paired with a Robot Controller Shield on top. This tutorial will show you how to set up core Arduino software and the Megamark Libraries to work with the Choitek Megamark Robot Platform.



This is an official Arduino Mega 2560 Rev3 board pictured on the left with an official Choitek Robot Controller Shield pictured on the right.

Downloading the Arduino Software and Megamark Libraries

Step 1: First, install the latest Arduino IDE from the official Arduino website and choose your operating system:



 [SIGN IN](#) 

Download the Arduino IDE



ARDUINO 1.8.4

The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. It runs on Windows, Mac OS X, and Linux. The environment is written in Java and based on Processing and other open-source software.

This software can be used with any Arduino board. Refer to the [Getting Started](#) page for Installation instructions.

Windows Installer
Windows ZIP file for non admin install

Windows app 

Mac OS X 10.7 Lion or newer

Linux 32 bits
Linux 64 bits
Linux ARM

[Release Notes](#)
[Source Code](#)
[Checksums \(sha512\)](#)

If you are stuck with any of the steps, the Arduino organization has thoroughly documented any trouble shooting steps you may encounter with the Arduino IDE.

Step 2: Second, download the `Megamark.zip` Library for Arduino, which can be found on [Github](#) or the main [Choitek website](#). Extract it and place the extracted `Megamark` folder into Arduino's Libraries directory in Documents. Normally, this would be located in

`C:\Users\Username\Documents\Arduino\libraries.`

The screenshot shows the GitHub interface for the repository 'Choitek / Choitek-Megamark'. The repository has 1 watch, 0 stars, and 0 forks. The 'Code' tab is selected, showing the file structure. The file 'Megamark.zip' is highlighted, with a commit message 'Fixed Line endings for Megamark Arduino Library' and a commit hash '69d1ae2' from 2 hours ago. The footer of the page includes copyright information for GitHub, Inc. and Choitek LLC, along with links to Terms, Privacy, Security, Status, Help, Contact GitHub, API, Training, Shop, Blog, and About.

This repository Search Pull requests Issues Marketplace Explore

Choitek / Choitek-Megamark Unwatch 1 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Settings Insights

Branch: master Choitek-Megamark / Libraries / Megamark Arduino / Create new file Upload files Find file History

johnchoi313 Fixed Line endings for Megamark Arduino Library Latest commit 69d1ae2 2 hours ago

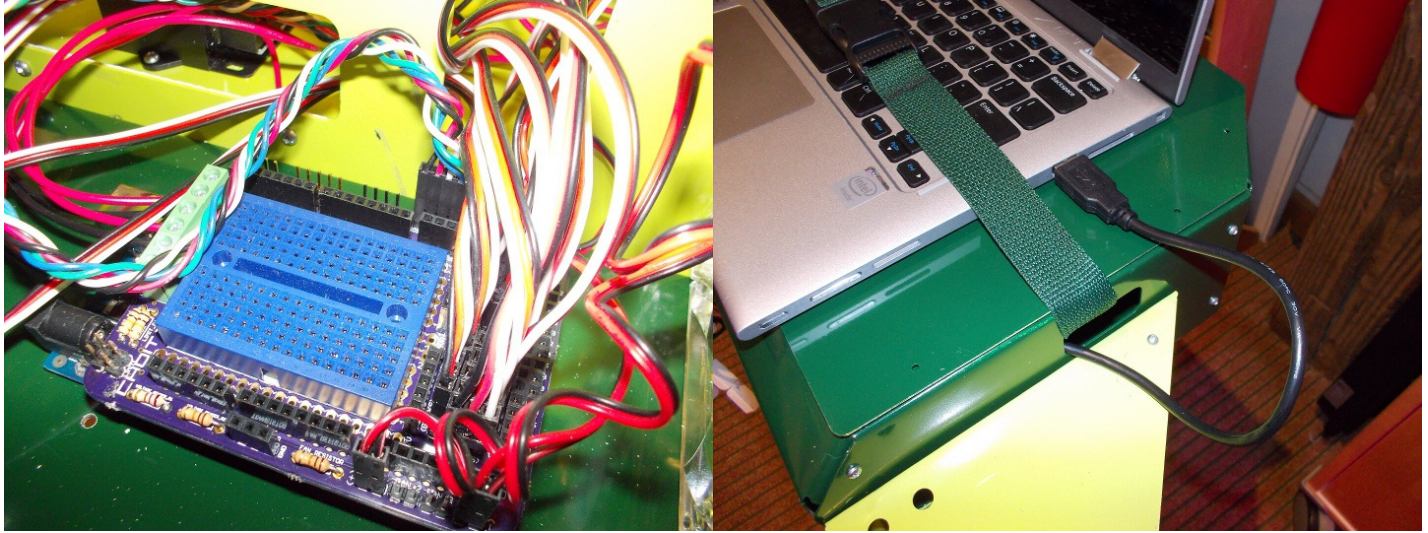
..

Megamark.zip Fixed Line endings for Megamark Arduino Library 2 hours ago

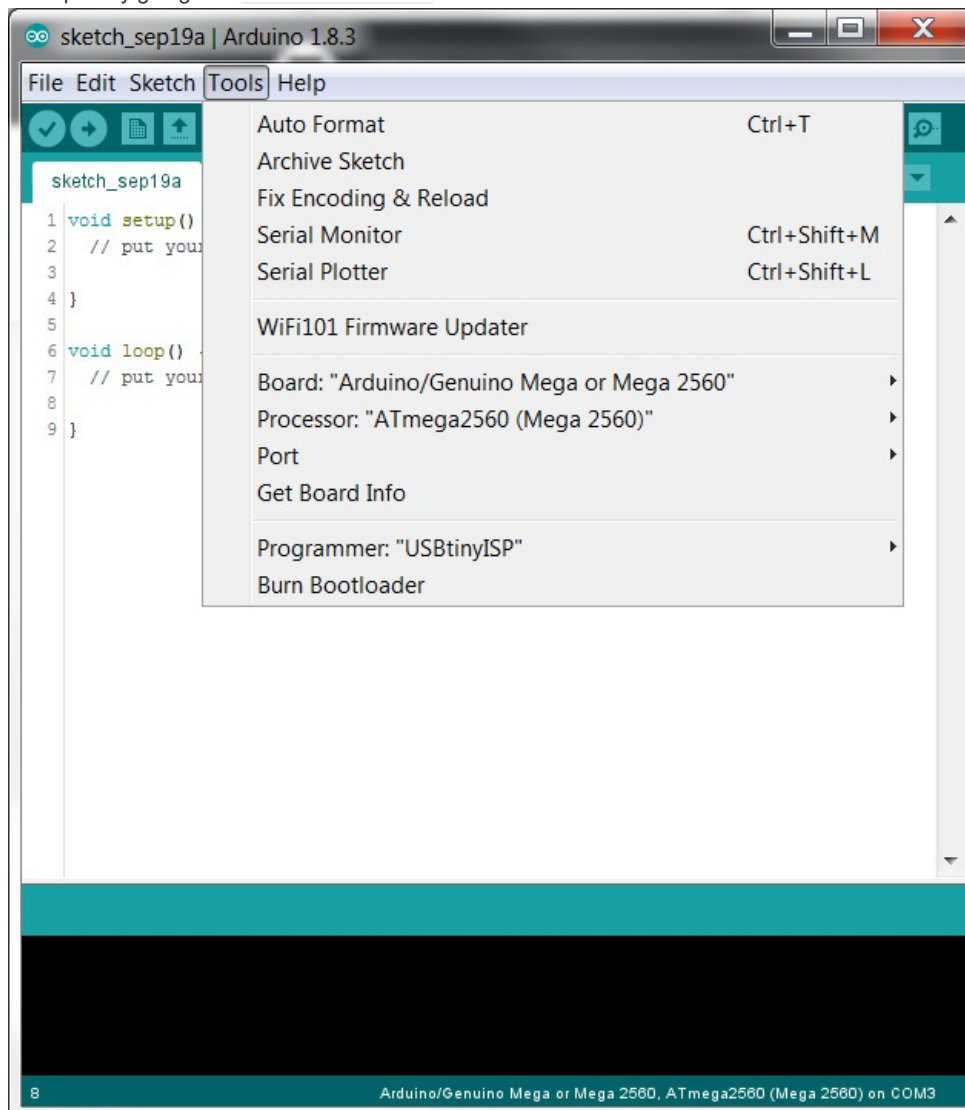
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Testing the Arduino Software and Megamark Libraries

Step 3: Next, plug the robot's internal Arduino Mega 2560 onto your laptop via USB Serial.

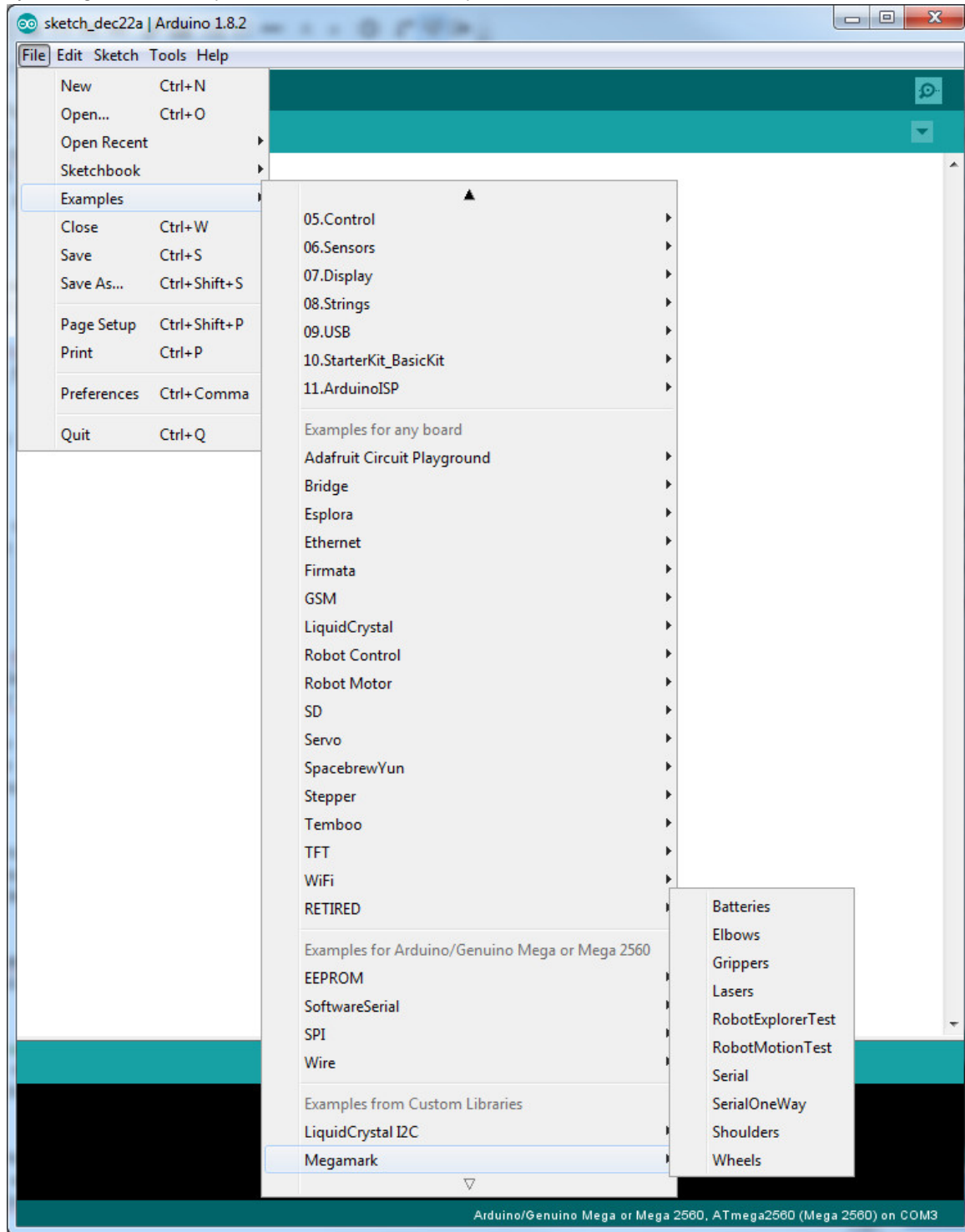


Step 4: Fire up the newly installed Arduino IDE. Set your board type by going into `Tools->Board->Arduino/Genuino Mega or Mega 2560`. Set your COM port by going into `Tools->Port->COM##`.



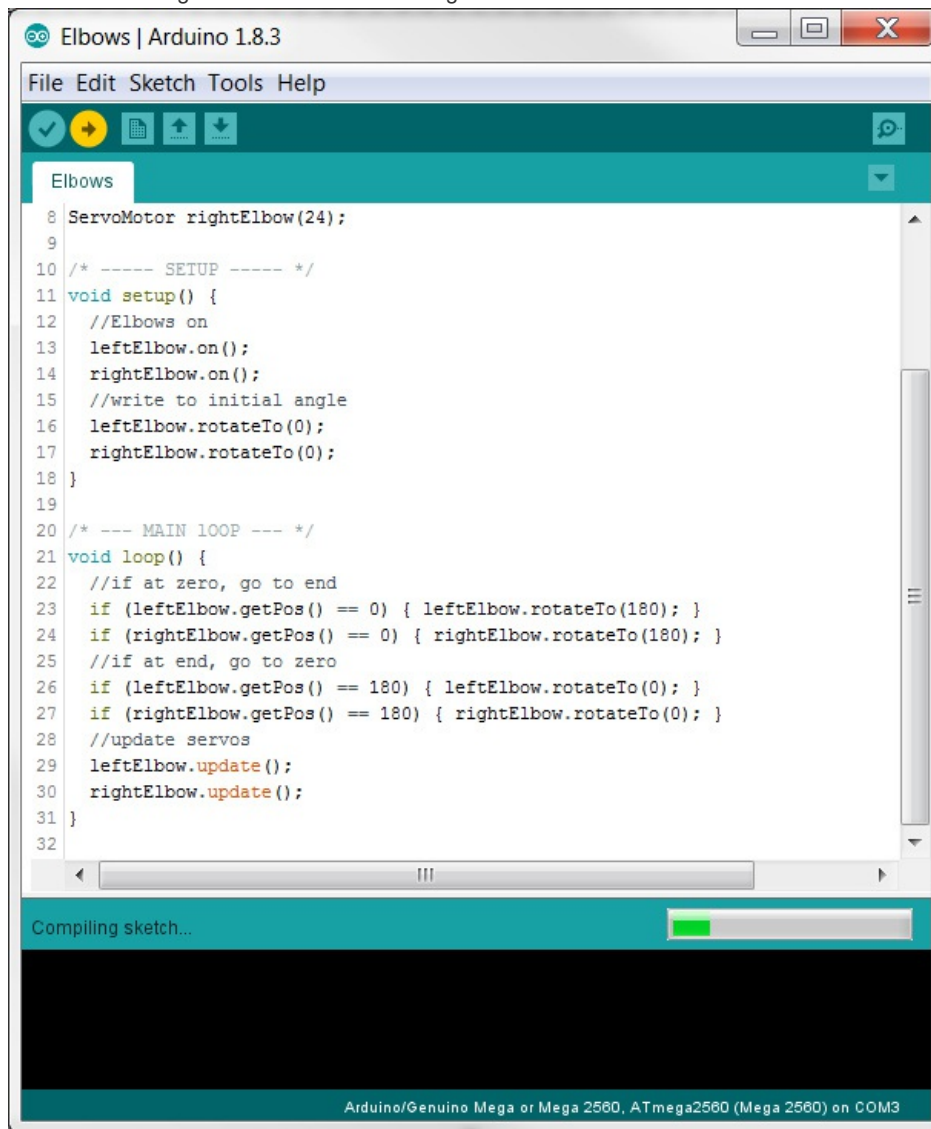
Some versions of the Choitek Megamark run on an Arduino Mega 1280 for legacy compatibility reasons. If this applies to your Megamark robot, you will also need to change `Tools->Processor->Board->ATmega1280`.

Step 5: Now, once the Arduino software has been correctly installed and configured with the correct settings, you should be able to use the Megamark Arduino Library. Go over to `File->Examples->Megamark->Elbows`. This is a simple example that tests the Megamark robot's elbow motors by rotating both of them up and down in a continuous loop.



The Megamark Library is just one of the many add-ons to increase the functionality of the Arduino platform. Check out the [full list of Arduino Libraries](#), which can be used to extend the functionality of the Megamark platform as well!

Step 6: Once the example file has been loaded, press the `Upload` button (shaped liked an arrow in the upper left corner of the screen) to load the code onto the Megamark Robot's Arduino Mega.



The `Verify` button shaped like a checkmark directly to the left of the `Upload` button will compile your code and make sure you have no simple syntax errors, but does not push code the Arduino.

Step 7: 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 sense of how to use the Megamark Library for Arduino. Once you are ready to move on to a higher level language like Python 2.7 or Unity, upload the example `File->Examples->Megamark->Serial`, which will make the Choitek Megamark robot ready to receive commands directly via real-time USB Serial communication.



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!