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## Arduino

### Source code for Arduino "firmware"?

Asked 3 years, 3 months ago   Active 1 year, 3 months ago   Viewed 4k times



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I am wondering if anyone here knows where the source code for the Arduino "firmware" is available for reading? I think it must be more than the 'boot loader' but I am not sure. Thanks!

p.s. I assume this kind of question is ok here, even though it's not ok on StackOverflow?



arduino-uno

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asked Jun 6 '17 at 18:21



[pitosalas](#)

161 1 3

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The "firmware" is whatever program a microcontroller runs. On an Arduino, it is typically the program **you** write and upload into the microcontroller's flash memory.

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<https://github.com/arduino/ArduinoCore-avr>

If by "firmware" you mean the bootloader (the small program that runs at reset and will accept the upload of your firmware), is is here:

<https://github.com/arduino/Arduino/tree/master/hardware/arduino/avr/bootloaders/optiboot>

Note that this is valid for the AVR-based Arduinos. The cores and bootloaders used in other architectures are stored in separate repositories, e.g.

<https://github.com/arduino/ArduinoCore-sam>

edited Jun 18 '19 at 20:48



**djvg**

**103** 4

answered Jun 7 '17 at 8:21



**Edgar Bonet**

**33k** 3 28 56

If you are looking for the Flash Firmware, I think the github project documentation is pretty well developed, here:

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<https://github.com/arduino/Arduino>

This is a good introduction to build and flash your Arduino UNO:

<http://angryelectron.com/arduino-firmware/>

And here a good start to build your own Arduino on a breadboard:

<https://www.arduino.cc/en/main/standalone>

answered Jun 6 '17 at 18:29



**Andrew Paes**

**418** 2 7

Thanks. The arduino/arduino github repo looks like java so I think it's for their IDE. Thanks for the other links, I will followup. – **pitosalas** Jun 6 '17 at 18:41

@pitosalas: that GitHub repo also has the source of the AVR core and a few extra libraries. – **Edgar Bonet** Jun 6 '17 at 19:21