Arduino not the only game in town. Nov 27, 2016

This lists a few micro-controllers that are just as affordable, and easy to program as the Arduino boards. Some have better specifications, or are in some way better than arduino.

Almost all of are programmed in either the same IDE or a very similar IDE as the Arduino, most only needing small changes to sketches to work. (Thou not all libraries that are made for the Arduino will work).

MBED - online IDE supports many different boards, and has a large user base. It is C based, so the IDE is similar sketches need to rewritten (generally).

<http://www.st.com/en/evaluation-tools/stm32-mcu-nucleo.html?querycriteria=productId=LN1847>

<http://www.cnx-software.com/2014/02/18/stmicro-unveils-10-mbed-enabled-and-arduino-compatible-nucleo-development-boards/>

<http://www.newark.com/stmicroelectronics/nucleo-f411re/dev-board-arduino-mbed-nucleo/dp/55X3031>

TI Launchpad series of boards. The IDE is based on the Arduino IDE, sketches (in general) don’t need much if any changes to work. Libraries however maybe a problem (at least for now).

<http://embeddedcomputing.weebly.com/launchpad-msp432-rtos-for-everyone.html>

<http://www.ti.com/lsds/ti/tools-software/launchpads/overview/overview.page>

<https://store.ti.com/msp-exp432p401r.aspx>

<https://store.ti.com/boostxl-edumkii.aspx>

Arduino IDE compatible boards - This is a small list of boards that were designed to work with the Arduino IDE.

CHIP-KIT Boards (PIC based boards) - the IDE now uses the Arduino IDE, you add the boards with the board manager. Sketches (in general) don’t need much if any changes to work. Libraries may still be a problem.

<http://chipkit.net/wiki/index.php?title=ChipKIT_core>

<http://chipkit.net/>

Wicked Device Wildfire

<https://nathan.chantrell.net/20131130/wicked-device-wildfire-arduino-compatible-with-atmega1284p-and-wifi/>

<http://www.mcmelectronics.com/product/58-17857>

<http://hackerboards.com/dual-core-mcu-arduino-sbc-has-wifi-and-audio/>

Spark.io (now Particle.io) boards. Particle.io is another online IDE mostly compatible with arduino sketches, and libraries - thou the libarires may need to be re-written. They were based on the Arduino IDE, and do have an off-line IDE

There are a few boards built on the Particle platform.

Oak by Digistump (can also be programmed using the Arduino IDE

<http://digistump.com/category/22>

Bluz - a bluetooth micro-controller - This uses your cell phone as a gateway to Particle.io to program it, kind of a neat idea. (There is also a gateway/hub that can be used to program it)

<http://bluz.io/>

In early beta - use a Raspberry PI with Particle.io

Photon - <http://www.mouser.com/Search/m_ProductDetail.aspx?R=PHNTRAYHvirtualkey54650000virtualkey465-PHOTONH-T>

They also have a cellular based microcontroller.

Electric IMP boards - Electric IMP is a IoT company that is geared to making production ready hardware, that being said they do have a few developer board that are in the reasonable price range (when you consider what some dev boards cost). It’s is not really a hobby market - but they don’t turn hobbyist away either. Electric IMP has a web-based IDE that is similar to Arduino (C based), but many changes would need to be made to sketches- so not really sketch compatible.

<https://electricimp.com/platform/ide/>

Other Boards (Signle Board Computers)

Raspberry PI

Orange PI

<http://hackaday.com/2016/11/07/orange-pi-releases-two-boards/>

<https://www.aliexpress.com/item/New-Orange-Pi-Zero-H2-Quad-Core-Open-source-512MB-development-board-beyond-Raspberry-Pi/32761500374.html?spm=2114.01010208.3.30.2gkWJa&ws_ab_test=searchweb0_0,searchweb201602_4_10065_10068_10000007_10084_10083_10080_10082_10081_10060_10061_10062_10056_10055_10054_10059_10099_10078_10079_10073_10097_10100_10096_10070_10052_423_10050_10051_424,searchweb201603_9&btsid=0d0726bf-fafe-4a6f-abd3-57d0c58e1d0b>

<https://liliputing.com/2016/11/orange-pi-zero-7-quad-core-dev-boardmini-pc.html>

Apollo Lake

<http://hackerboards.com/first-apollo-lake-3-5-inch-boards-appear/>

Banana PI, and others based on Raspberry PI

And an often over looked but very surprising low cost SBC

<https://www.pine64.org/> with computers starting at $15.00

Some of AVR chips

<http://www.atmel.com/search.aspx?q=ATtiny85+inmeta:content_type%3DDevices>