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2.2 ESP32 Arduino Core

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2.7 Espalexa

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<https://github.com/JChristensen/Timezone>

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Jack Christensen Mar 2012

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2.12 Ws2812fx

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Version 3, 29 June 2007

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```
{project} Copyright (C) {year} {fullname}  
This program comes with ABSOLUTELY NO WARRANTY; for details type `show w'.  
This is free software, and you are welcome to redistribute it  
under certain conditions; type `show c' for details.
```

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, your program's commands might be different; for a GUI interface, you would use an "about box".

You should also get your employer (if you work as a programmer) or school, if any, to sign a "copyright disclaimer" for the program, if necessary. For more information on this, and how to apply and follow the GNU GPL, see <<http://www.gnu.org/licenses/>>.

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2.14 AsyncTCP

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Version 3, 29 June 2007

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2.15 ESPAsyncWebServer

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2.17 IRremoteESP8266

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2.18 LittleFS_esp32

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2.19 NeoPixelBus

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2.20 MPU6050

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2.21 OneWire

Copyright (c) 2007, Jim Studt (original old version - many contributors since)

The latest version of this library may be found at:

http://www.pjrc.com/teensy/td_libs_OneWire.html

OneWire has been maintained by Paul Stoffregen (paul@pjrc.com) since January 2010.

DO NOT EMAIL for technical support, especially not for ESP chips!
All project support questions must be posted on public forums relevant to the board or chips used. If using Arduino, post on Arduino's forum. If using ESP, post on the ESP community forums.
There is ABSOLUTELY NO TECH SUPPORT BY PRIVATE EMAIL!

Github's issue tracker for OneWire should be used only to report specific bugs. DO NOT request project support via Github. All project and tech support questions must be posted on forums, not github issues. If you experience a problem and you are not absolutely sure it's an issue with the library, ask on a forum first. Only use github to report issues after experts have confirmed the issue is with OneWire rather than your project.

Back in 2010, OneWire was in need of many bug fixes, but had been abandoned the original author (Jim Studt). None of the known contributors were interested in maintaining OneWire. Paul typically works on OneWire every 6 to 12 months. Patches usually wait that long. If anyone is interested in more actively maintaining OneWire, please contact Paul (this is pretty much the only reason to use private email about OneWire).

OneWire is now very mature code. No changes other than adding definitions for newer hardware support are anticipated.

Version 2.3:

Unknown chip fallback mode, Roger Clark
Teensy-LC compatibility, Paul Stoffregen
Search bug fix, Love Nystrom

Version 2.2:

Teensy 3.0 compatibility, Paul Stoffregen, paul@pjrc.com
Arduino Due compatibility, <http://arduino.cc/forum/index.php?topic=141030>
Fix DS18B20 example negative temperature
Fix DS18B20 example's low res modes, Ken Butcher
Improve reset timing, Mark Tillotson
Add const qualifiers, Bertrik Sikken
Add initial value input to crc16, Bertrik Sikken
Add target_search() function, Scott Roberts

Version 2.1:

Arduino 1.0 compatibility, Paul Stoffregen
Improve temperature example, Paul Stoffregen
DS250x_PROM example, Guillermo Lovato
PIC32 (chipKit) compatibility, Jason Dangel, dangel.jason AT gmail.com
Improvements from Glenn Trewitt:
- crc16() now works
- check_crc16() does all of calculation/checking work.
- Added read_bytes() and write_bytes(), to reduce tedious loops.
- Added ds2408 example.
Delete very old, out-of-date readme file (info is here)

Version 2.0: Modifications by Paul Stoffregen, January 2010:

http://www.pjrc.com/teensy/td_libs_OneWire.html
Search fix from Robin James
<http://www.arduino.cc/cgi-bin/yabb2/YaBB.pl?num=1238032295/27#27>
Use direct optimized I/O in all cases
Disable interrupts during timing critical sections
(this solves many random communication errors)
Disable interrupts during read-modify-write I/O
Reduce RAM consumption by eliminating unnecessary
variables and trimming many to 8 bits
Optimize both crc8 - table version moved to flash

Modified to work with larger numbers of devices - avoids loop.

Tested in Arduino 11 alpha with 12 sensors.

26 Sept 2008 -- Robin James

<http://www.arduino.cc/cgi-bin/yabb2/YaBB.pl?num=1238032295/27#27>

Updated to work with arduino-0008 and to include skip() as of
2007/07/06. --RJL20

Modified to calculate the 8-bit CRC directly, avoiding the need for
the 256-byte lookup table to be loaded in RAM. Tested in arduino-0010
-- Tom Pollard, Jan 23, 2008

Jim Studt's original library was modified by Josh Larios.

Tom Pollard, pollard@alum.mit.edu, contributed around May 20, 2008

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Much of the code was inspired by Derek Yerger's code, though I don't think much of that remains. In any event that was..

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The CRC code was excerpted and inspired by the Dallas Semiconductor sample code bearing this copyright.

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2.22 U8g2

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See

<https://github.com/olikraus/u8g2/wiki/fntgrp>

for detailed information on the licensing conditions for each font.

The example code in `sys/raspi_gpio/hal` will use the `bcm2835` lib from Mike McCauley which is licensed under GPL V3: <http://www.airspayce.com/mikem/bcm2835/>

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Universal 8bit Graphics Library (<http://code.google.com/p/u8g2/>)

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