**Setup notes**

**Use GCC 6 by**

brew link gcc@6

Takes about an hour or so… Be patient, don’t CTRL-C it.

Ignore the newt test all, will get errors and warnings. You can deprecate errors by removing –Werror in your config file.

**Compiler.yml**

compiler.flags.base: >

-m32 -Wall **–Werror** -ggdb

(remove –Werror)

# OS X.

compiler.path.cc.DARWIN.OVERWRITE: "gcc-6"

compiler.path.as.DARWIN.OVERWRITE: "gcc-6"

**SHELL**

PATH=/usr/local/Cellar:${PATH}

This forces it to use GCC 6, instead of the default.

**OPENOCD**

**Tar –xf openocd-bin-0.10.0-MacOS.tgz /usr/local/Cellar/**

**Download QMK Toolbox. (https://qmk.fm/toolbox/)**

**Copy osx/libusb-0.1.4.dylib to** /usr/local/Cellar/libusb-compat/0.1.4/libusb-0.1.4.dylib

ln –s /usr/local/Cellar/libusb-compat/0.1.4/libusb-0.1.4.dylib /usr/local/lib/libusb-0.1.4.dylib

Don’t do brew install libusb-compat (doesn’t work with Mojave)

**NEWT**

cd myproj/

newt install

newt target create ble\_temp\_sensor

newt target set ble\_temp\_sensor app=apps/ble\_temp\_sensor

newt target set ble\_temp\_sensor bsp=@apache-mynewt-core/hw/bsp/rb-nano2

newt target set ble\_temp\_sensor build\_profile=debug

newt build ble\_temp\_sensor

newt create-image ble\_temp\_sensor 1.0.1

chans-admin:myproj test$ newt build ble\_temp\_sensor

chans-admin:myproj test$ newt run ble\_temp\_sensor

2019/01/25 17:08:30.439 [WARNING] Transient package @apache-mynewt-core/net/nimble/controller used, update configuration to use linked package instead (@apache-mynewt-nimble/nimble/controller)

2019/01/25 17:08:30.439 [WARNING] Transient package @apache-mynewt-core/net/nimble/host used, update configuration to use linked package instead (@apache-mynewt-nimble/nimble/host)

2019/01/25 17:08:30.439 [WARNING] Transient package @apache-mynewt-core/net/nimble/host/store/config used, update configuration to use linked package instead (@apache-mynewt-nimble/nimble/host/store/config)

2019/01/25 17:08:30.439 [WARNING] Transient package @apache-mynewt-core/net/nimble/host/services/gatt used, update configuration to use linked package instead (@apache-mynewt-nimble/nimble/host/services/gatt)

2019/01/25 17:08:30.439 [WARNING] Transient package @apache-mynewt-core/net/nimble/transport/ram used, update configuration to use linked package instead (@apache-mynewt-nimble/nimble/transport/ram)

2019/01/25 17:08:30.439 [WARNING] Transient package @apache-mynewt-core/net/nimble/host/services/gap used, update configuration to use linked package instead (@apache-mynewt-nimble/nimble/host/services/gap)

Enter image version(default 0):

0

App image succesfully generated: /Users/test/proxy/myproj/bin/targets/ble\_temp\_sensor/app/apps/ble\_temp\_sensor/ble\_temp\_sensor.img

Loading app image into slot 1

[/Users/test/proxy/myproj/repos/apache-mynewt-core/hw/bsp/rb-nano2/rb-nano2\_debug.sh /Users/test/proxy/myproj/repos/apache-mynewt-core/hw/bsp/rb-nano2 bin/targets/ble\_temp\_sensor/app/apps/ble\_temp\_sensor/ble\_temp\_sensor]

; nrf52.cpu configure -event gdb-detach {if {[nrf52.cpu curstate] eq "halted"} resume;shutdown}

GNU gdb (GNU Tools for ARM Embedded Processors) 7.8.0.20150604-cvs

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There is NO WARRANTY, to the extent permitted by law. Type "show copying"

and "show warranty" for details.

This GDB was configured as "--host=x86\_64-apple-darwin10 --target=arm-none-eabi".

Type "show configuration" for configuration details.

For bug reporting instructions, please see:

<http://www.gnu.org/software/gdb/bugs/>.

Find the GDB manual and other documentation resources online at:

<http://www.gnu.org/software/gdb/documentation/>.

For help, type "help".

Type "apropos word" to search for commands related to "word"...

Reading symbols from bin/targets/ble\_temp\_sensor/app/apps/ble\_temp\_sensor/ble\_temp\_sensor.elf...done.

0x000001fa in ?? ()

target halted due to debug-request, current mode: Thread

xPSR: 0x01000000 pc: 0x000000d8 msp: 0x20010000

(gdb) continue

Continuing.

**Code modification: gatt\_svr.c**

static int

gatt\_svr\_chr\_cb(

uint16\_t conn\_handle,

uint16\_t attr\_handle,

struct ble\_gatt\_access\_ctxt \*ctxt, void \*arg)

{

int rc;

int16\_t temp;

//# ===================================

//# CHAN ADDED

//# Loop of 10 temperature readings

//# ===================================

int a;

for (a = 0; a<10; a=a+1){

temp = get\_temp\_measurement();

LOG(INFO, "read value=%i\n", temp);

rc = os\_mbuf\_append(ctxt->om, &temp, sizeof(temp));

//# Delay of 100ms

os\_cputime\_delay\_usecs(100000);

}

return rc;

}

**RESOURCES:**

<https://mynewt.apache.org>

<https://mynewt.apache.org/latest/tutorials/blinky/blinky_console.html#modify-main-c> (FOR ENABLING SERIAL OUTPUT DEBUG)

minicom or screen for serial console output