

# LAB3

21611668 이현정

실험 내용 : Cross compiler 설치

```
Terminal
root@ubuntu: ~
ux-gnueabi --enable-threads --disable-libmudflap --disable-libssp --disable-libs
tdcxx-pch --enable-extra-sgxxlite-multilibs --with-arch=armv5te --with-gnu-as --
with-gnu-ld --with-specs='%{funwind-tables}|fno-unwind-tables|mabi=*|ffreestandin
g|nostdlib;;-funwind-tables} %02:%{!fno-remove-local-statics: -fremove-local-s
tatics}} %0*:%{0|00|01|02|0s;;%{!fno-remove-local-statics: -fremove-local-stat
ics}}}' --enable-languages=c,c++ --enable-shared --disable-lto --enable-symvers=
gnu --enable-__cxa_atexit --with-pkgversion='Sourcery G++ Lite 2010q1-202' --wit
h-bugurl=https://support.codesourcery.com/GNUToolchain/ --disable-nls --prefix=/
opt/codesourcery --with-sysroot=/opt/codesourcery/arm-none-linux-gnueabi/libc --
with-build-sysroot=/scratch/julian/2010q1-release-linux-lite/install/arm-none-li
nux-gnueabi/libc --with-gmp=/scratch/julian/2010q1-release-linux-lite/obj/host-l
ibs-2010q1-202-arm-none-linux-gnueabi-i686-pc-linux-gnu/usr --with-mpfr=/scratch
/julian/2010q1-release-linux-lite/obj/host-libs-2010q1-202-arm-none-linux-gnueab
i-i686-pc-linux-gnu/usr --with-ppl=/scratch/julian/2010q1-release-linux-lite/obj
/host-libs-2010q1-202-arm-none-linux-gnueabi-i686-pc-linux-gnu/usr --with-host-l
ibstdcxx='-static-libgcc -Wl,-Bstatic,-lstdc++,-Bdynamic -lm' --with-cloog=/scra
tch/julian/2010q1-release-linux-lite/obj/host-libs-2010q1-202-arm-none-linux-gnu
eabi-i686-pc-linux-gnu/usr --disable-libgomp --enable-poison-system-directories
--with-build-time-tools=/scratch/julian/2010q1-release-linux-lite/install/arm-no
ne-linux-gnueabi/bin --with-build-time-tools=/scratch/julian/2010q1-release-linu
x-lite/install/arm-none-linux-gnueabi/bin
Thread model: posix
gcc version 4.4.1 (Sourcery G++ Lite 2010q1-202)
root@ubuntu:~#
```

Toolchain 설치 후, cross compiler를 컴파일 하였다.

```
Terminal
root@ubuntu: ~
No command 'cwd' found, did you mean:
Command 'cwm' from package 'swap-cwm' (universe)
Command 'cdw' from package 'cdw' (universe)
Command 'gwd' from package 'geneweb' (universe)
Command 'cw' from package 'cw' (universe)
Command 'xwd' from package 'x11-apps' (main)
Command 'pwd' from package 'coreutils' (main)
cwd: command not found
root@ubuntu:~# pwd
/root
root@ubuntu:~# ls
Desktop    hello.c    minicom.log  Pictures    Temp        Videos
Documents  helloworld Music        Public      Templates
Downloads  info       myTemp       temp        Temp.tar.gz
root@ubuntu:~# vim hello.c
root@ubuntu:~# arm-none-linux-gnueabi-gcc -o helloworld hello.c
root@ubuntu:~# file ./hello.c
./hello.c: C source, ASCII text
root@ubuntu:~# file ./helloworld
./helloworld: ELF 32-bit LSB executable, ARM, EABI5 version 1 (SYSV), dynamical
ly linked, interpreter /lib, for GNU/Linux 2.6.16, not stripped
root@ubuntu:~# ./helloworld
bash: ./helloworld: cannot execute binary file: Exec format error
root@ubuntu:~#
```

크로스 컴파일러를 이용하여 hello.c를 helloworld로 컴파일 하였다.

하지만 크로스 컴파일러로 컴파일된 파일은 ARM만 읽을수있기 때문에 실행이 불가능하였다.

## **-DISCUSSION-**

리눅스의 세계는 하면할수록 잘 모르겠다.. 잘 할수있을진 모르겠지만 열심히 해보고있다.

더 공부하여 타겟보드에 내가 짠 코드들을 컴파일해보고싶다.