1. Check if "make" is installed. Below command will show the version installed in your machine(if there is one).
   $ *dpkg -l make*

```
rudy@rudy-aftershock:~$ dpkg -l make
Desired=Unknown/Install/Remove/Purge/Hold
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend
|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)
||/ Name           Version      Architecture Description
+++-==============-============-============-=================================
ii  make           4.1-9.1ubunt amd64        utility for directing compilation
```

   If make is not yet installed, below command can be used to install it.
   $ *sudo apt-get install make*

2. Check the GNU Tools for ARM
   $ *arm-none-eabi-gcc --version*

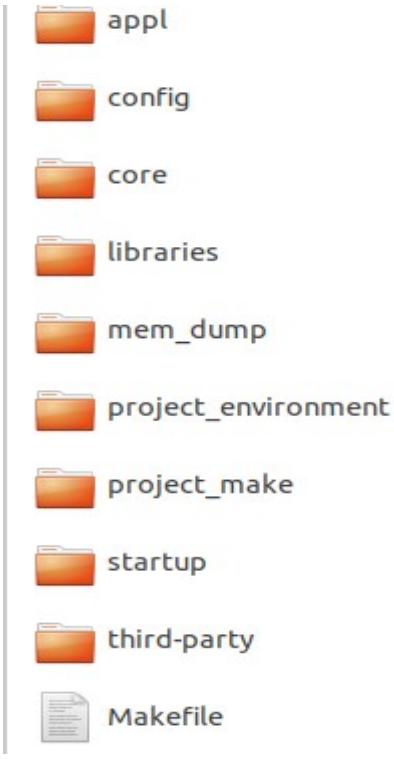
   If toolchain for Arm is installed, it shows the information for GNU Tools for ARM Embedded Processors.

```
rudy@rudy-aftershock:~$ arm-none-eabi-gcc --version
arm-none-eabi-gcc (15:6.3.1+svn253039-1build1) 6.3.1 20170620
Copyright (C) 2016 Free Software Foundation, Inc.
This is free software; see the source for copying conditions.  There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
```

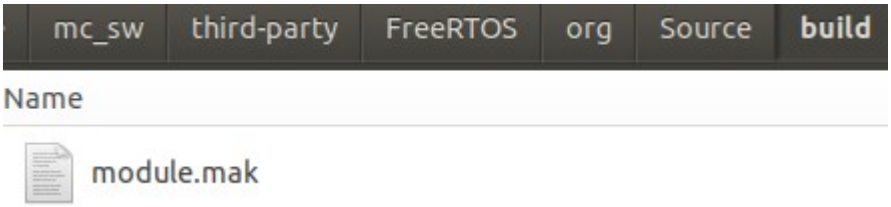
   If not yet installed, install it by simply type following command
   $ *sudo apt install gcc-arm-none-eabi*
   Normally, the installation is located in *usr/bin/arm-none-eabi-gcc*

   Alternatively, if you are installing specific version of gcc-arm, you can place the installation package anywhere you want as long as the path is known by the project.

3. Create makefiles



Feature/file level makefile



In my project, I handled it in this way.
Makefile – contains the high level makefile
main.mak – inside "project_make" folder, contains the project level makefile
bs_xxxxx .mak – inside "project_environment", contains the variant level makefile.
common.mak – present in each folder that has source file. It contains the feature/file level makefile.

4. To build the project

Build with SEGGER

make -j8 BUILDSET="variant_xxxxx"

Build without SEGGER

make -j8 BUILDSET="variant_xxxxx" SYSTEM_VIEW_TOOLS="false"

Clean-up build objects and binaries

make clean -j8 BUILDSET="variant_xxxxx"

where:

variant_xxxxx = bs_4wd , bs_diff_drive

e.g. make -j8 BUILDSET="bs_4wd"