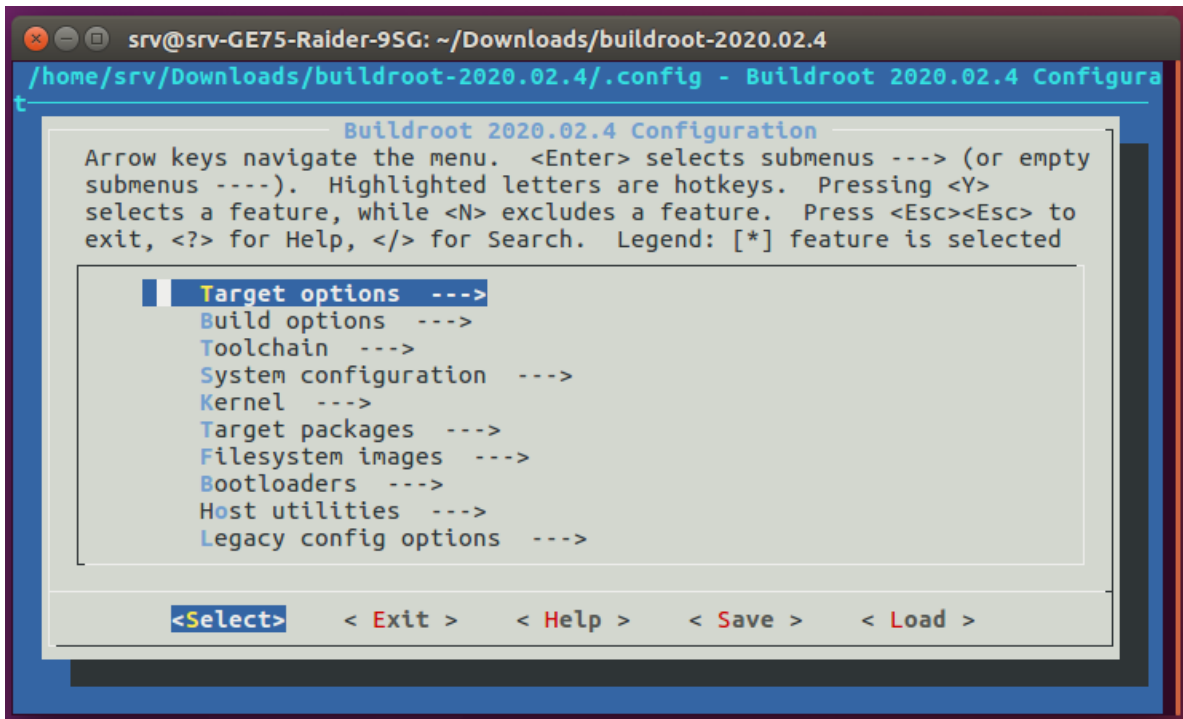


Buildroot Configuration Steps

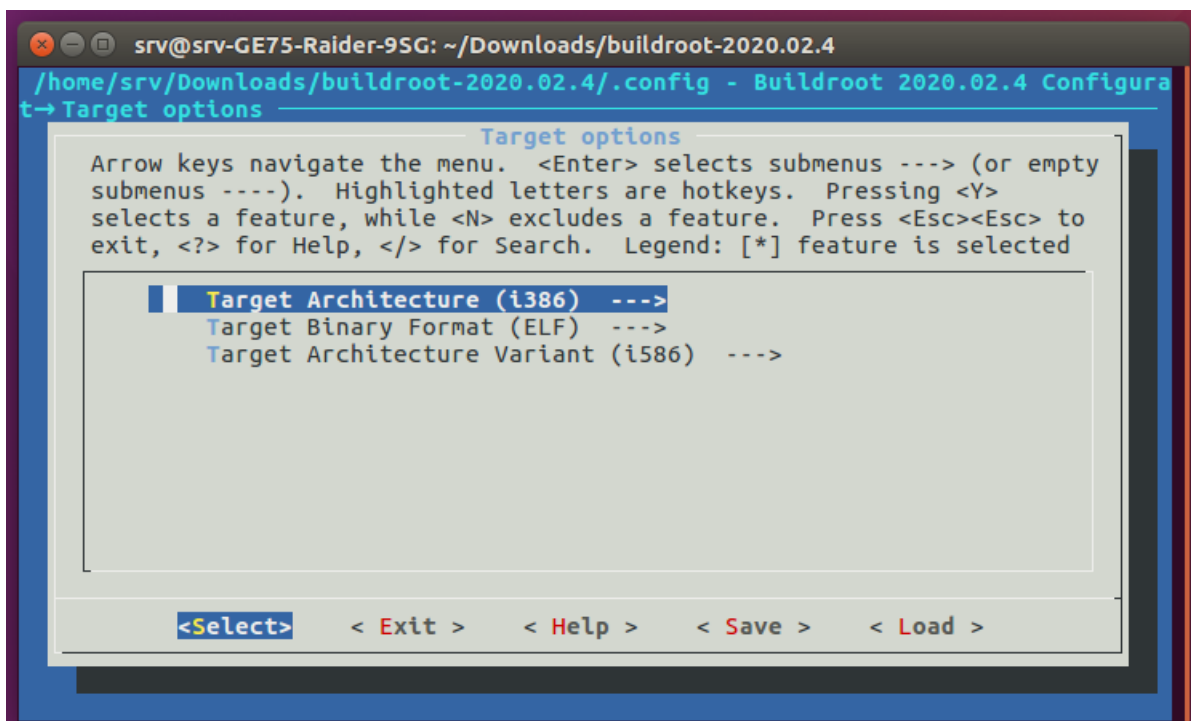
Step1

Choose the target options as highlighted below and enter.



Step 2

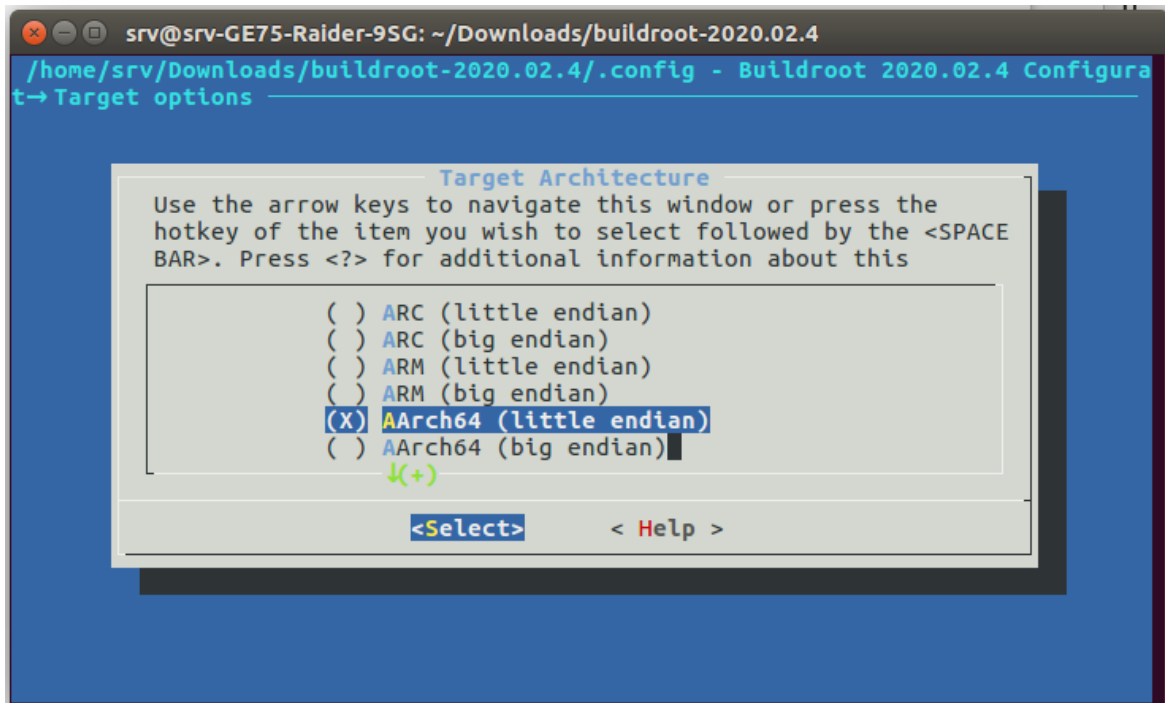
Choose "Target Architecture (i386)" and enter



Buildroot Configuration Steps

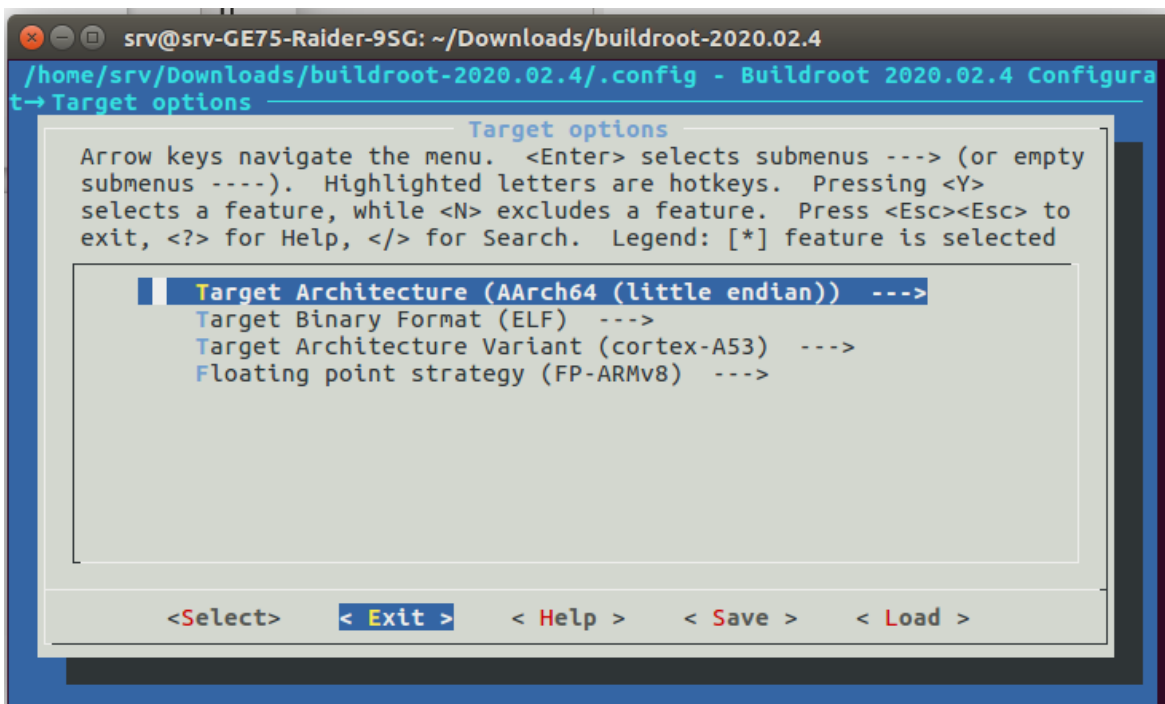
Step 3

Scroll down and select "AArch64 (little endian)" as highlighted below. Use "space bar" to choose the option and hit enter.



Step 4

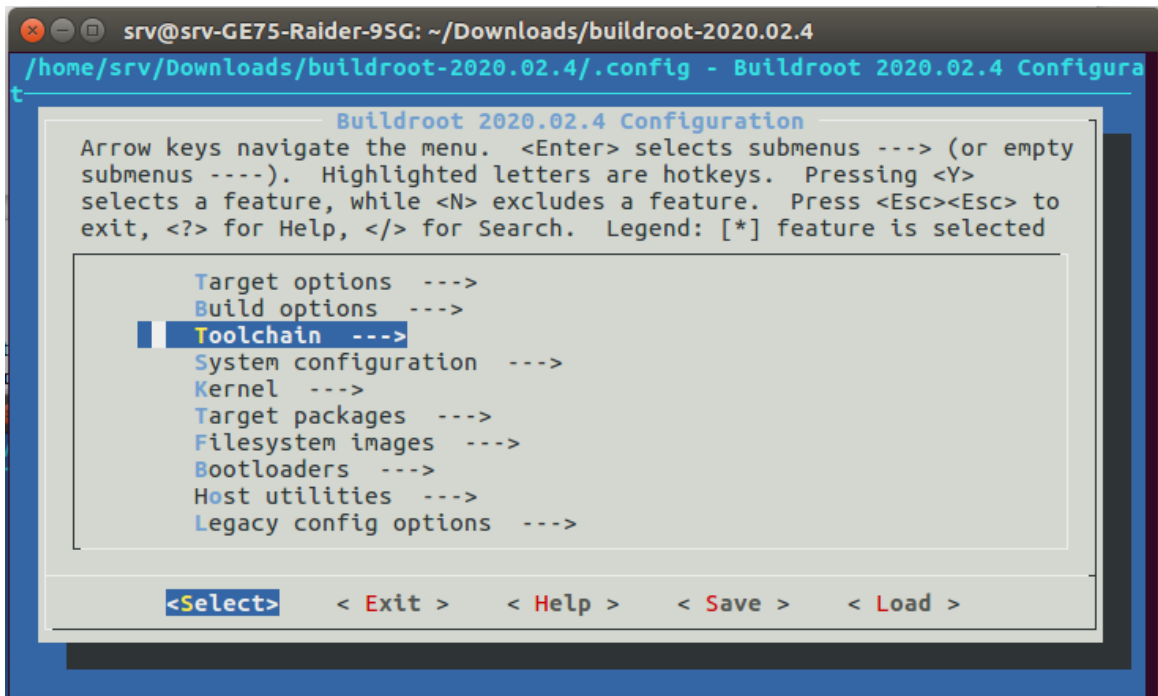
You will see this page. Here you should choose <Exit> to go back to main menu



Buildroot Configuration Steps

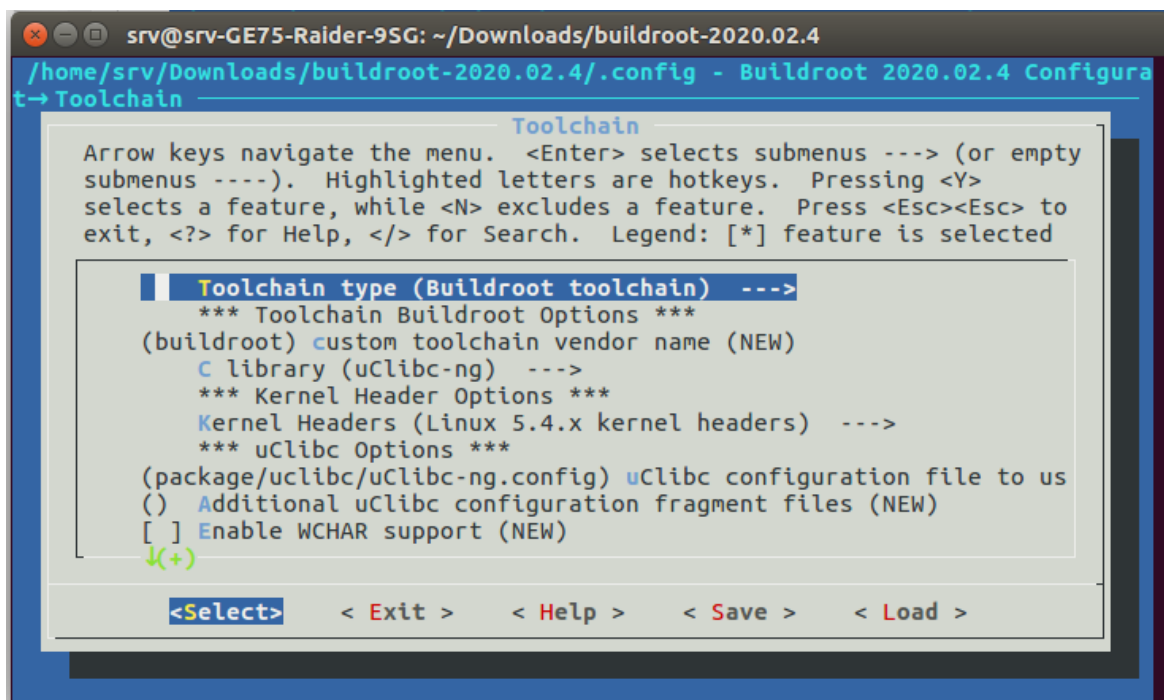
Step 5

You will be back to the main menu. Now go to “Toolchain section” (hit enter on Toolchain)



Step 6

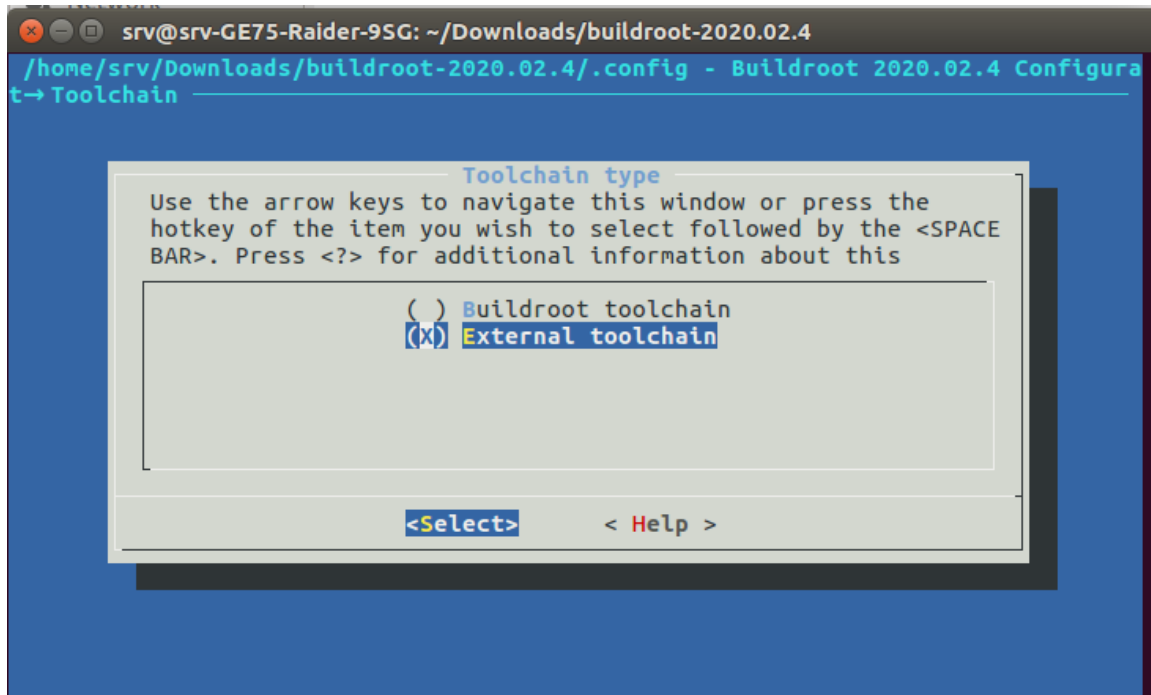
You will see the tool chain menu like the below image. Hit enter on the “Toolchain type” as highlighted below



Buildroot Configuration Steps

Step 7:

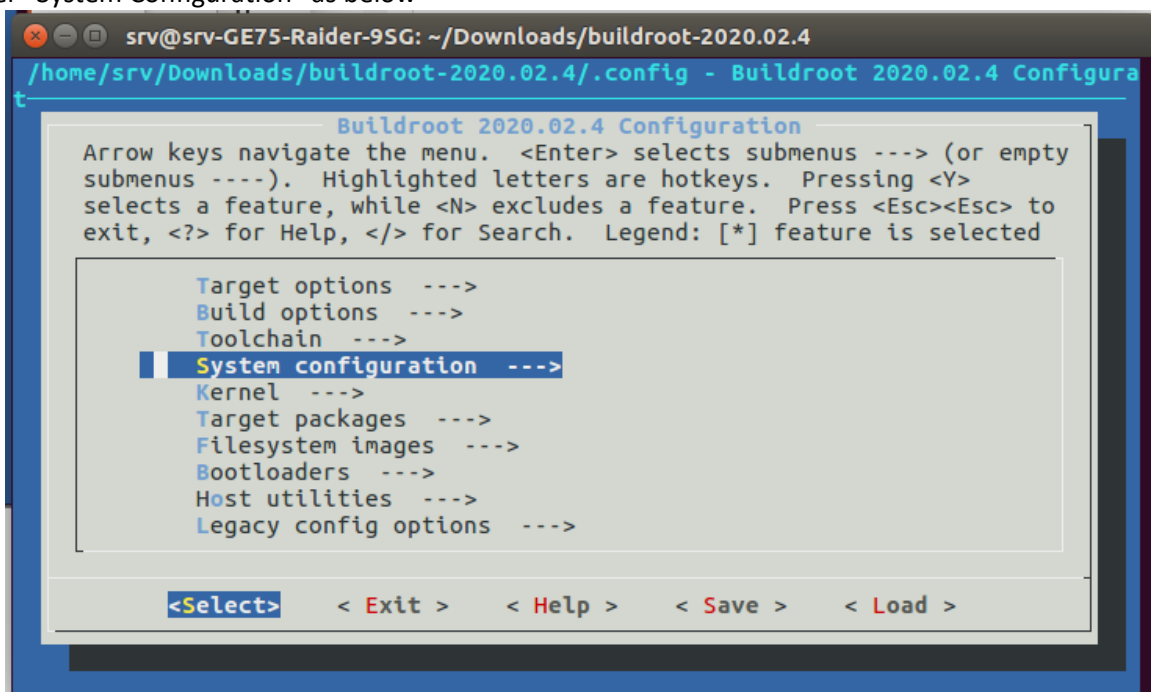
Now you will see the following options. Choose “External toolchain” (use arrow to move the cursor and hit “space bar” to select: the ‘x’ mark should move to the option External toolchain).



After this, come back to the main menu (use exit)

Step 8

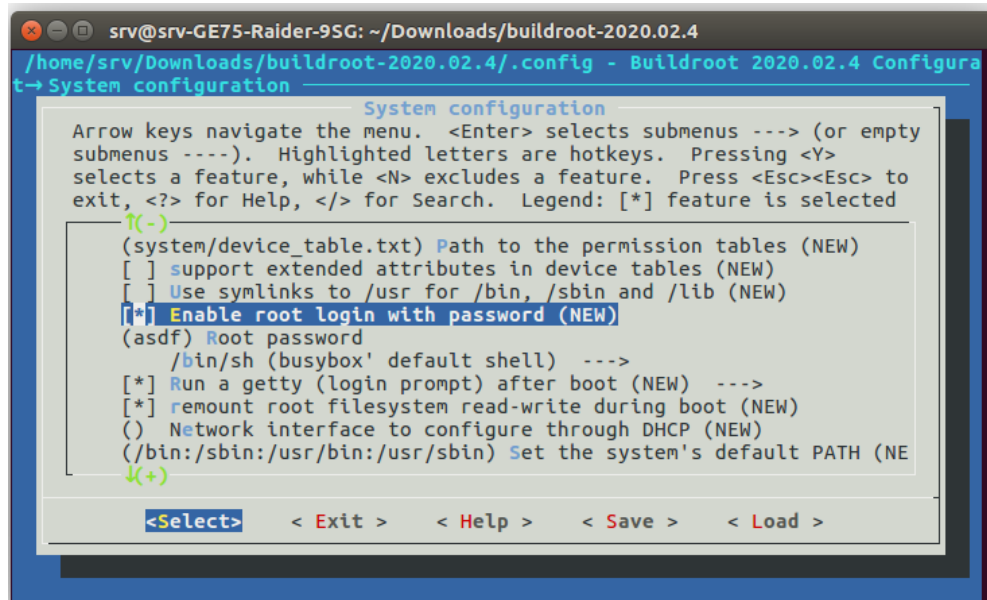
Enter “System Configuration” as below



Buildroot Configuration Steps

Step 9

After entering system configuration, scroll down until you see the “Enable root login with password (NEW)” line item as below:



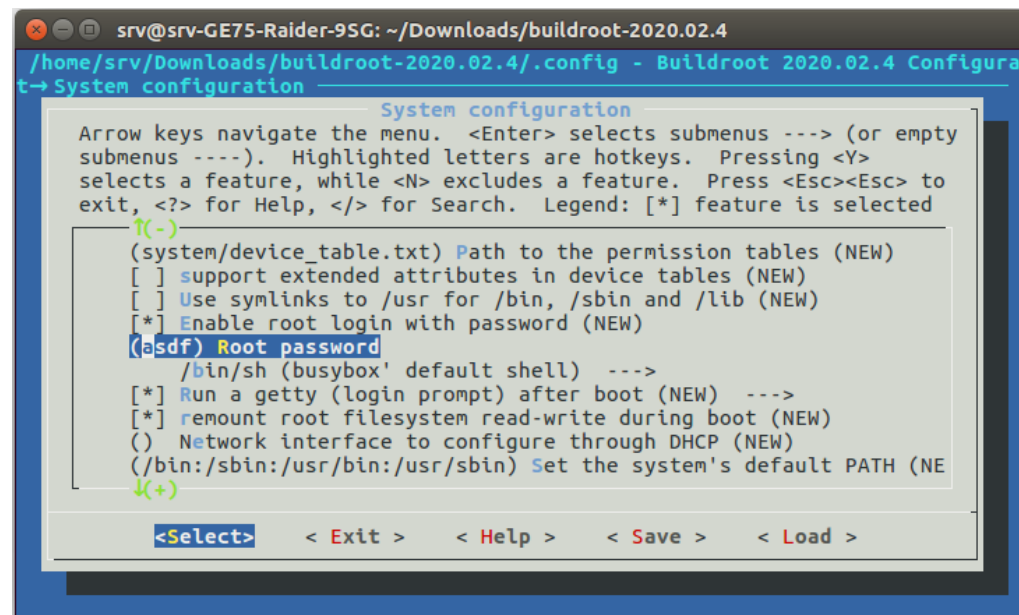
```
srv@srv-GE75-Raider-9SG: ~/Downloads/buildroot-2020.02.4
/home/srv/Downloads/buildroot-2020.02.4/.config - Buildroot 2020.02.4 Configura
t→System configuration

System configuration
Arrow keys navigate the menu. <Enter> selects submenus ---> (or empty
submenu ----). Highlighted letters are hotkeys. Pressing <Y>
selects a feature, while <N> excludes a feature. Press <Esc><Esc> to
exit, <?> for Help, </> for Search. Legend: [*] feature is selected

↑(-)
(system/device_table.txt) Path to the permission tables (NEW)
[ ] support extended attributes in device tables (NEW)
[ ] Use symlinks to /usr for /bin, /sbin and /lib (NEW)
[*] Enable root login with password (NEW)
(asdf) Root password
/bin/sh (busybox' default shell) --->
[*] Run a getty (login prompt) after boot (NEW) --->
[*] remount root filesystem read-write during boot (NEW)
() Network interface to configure through DHCP (NEW)
(/bin:/sbin:/usr/bin:/usr/sbin) Set the system's default PATH (NE
↓(+)
```

Step 10

Hit enter on the “(asdf) Root password” and change your password.

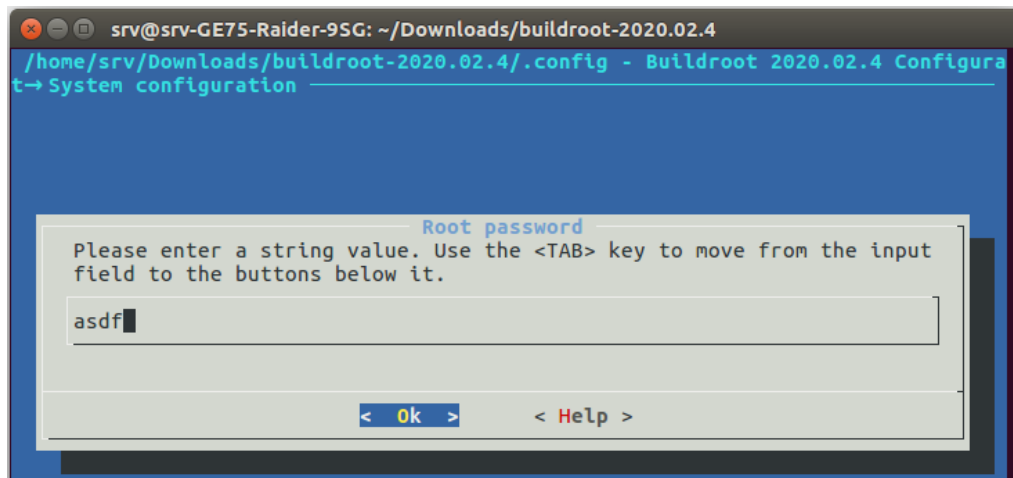


```
srv@srv-GE75-Raider-9SG: ~/Downloads/buildroot-2020.02.4
/home/srv/Downloads/buildroot-2020.02.4/.config - Buildroot 2020.02.4 Configura
t→System configuration

System configuration
Arrow keys navigate the menu. <Enter> selects submenus ---> (or empty
submenu ----). Highlighted letters are hotkeys. Pressing <Y>
selects a feature, while <N> excludes a feature. Press <Esc><Esc> to
exit, <?> for Help, </> for Search. Legend: [*] feature is selected

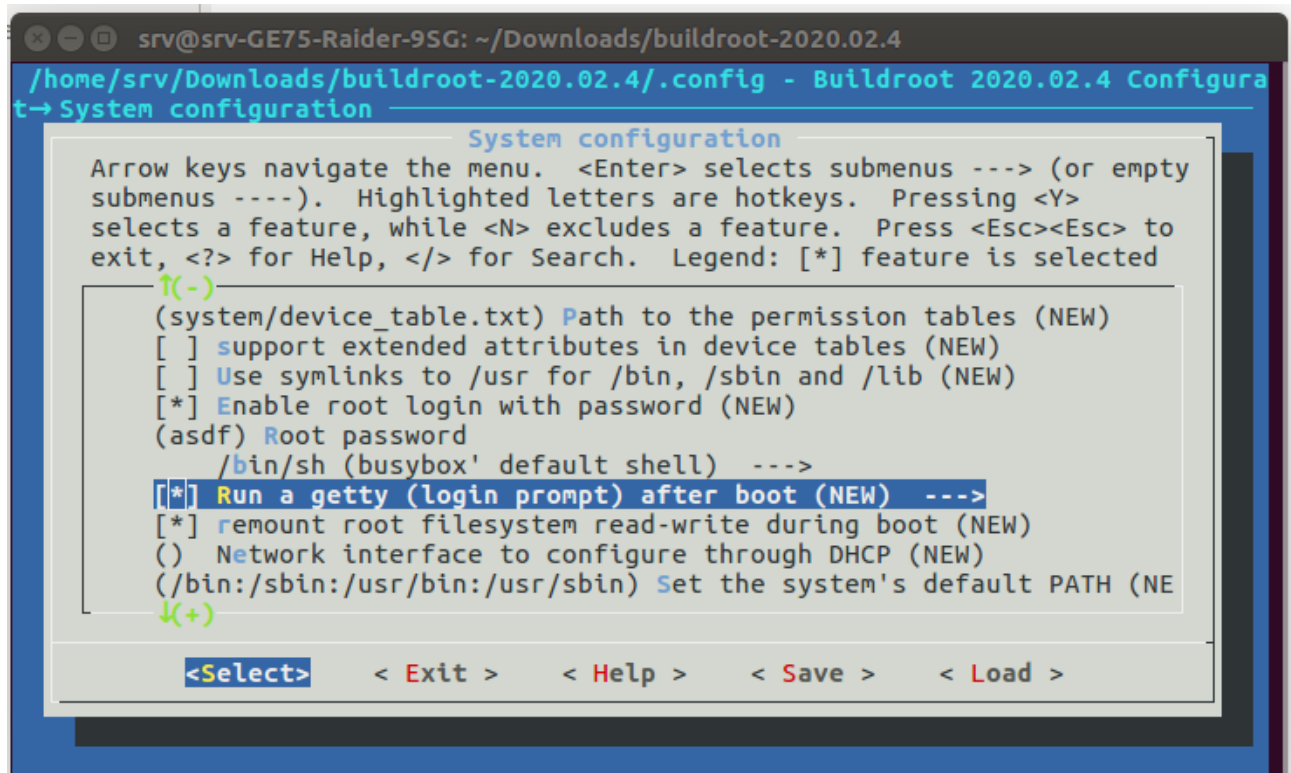
↑(-)
(system/device_table.txt) Path to the permission tables (NEW)
[ ] support extended attributes in device tables (NEW)
[ ] Use symlinks to /usr for /bin, /sbin and /lib (NEW)
[*] Enable root login with password (NEW)
(asdf) Root password
/bin/sh (busybox' default shell) --->
[*] Run a getty (login prompt) after boot (NEW) --->
[*] remount root filesystem read-write during boot (NEW)
() Network interface to configure through DHCP (NEW)
(/bin:/sbin:/usr/bin:/usr/sbin) Set the system's default PATH (NE
↓(+)
```

Buildroot Configuration Steps



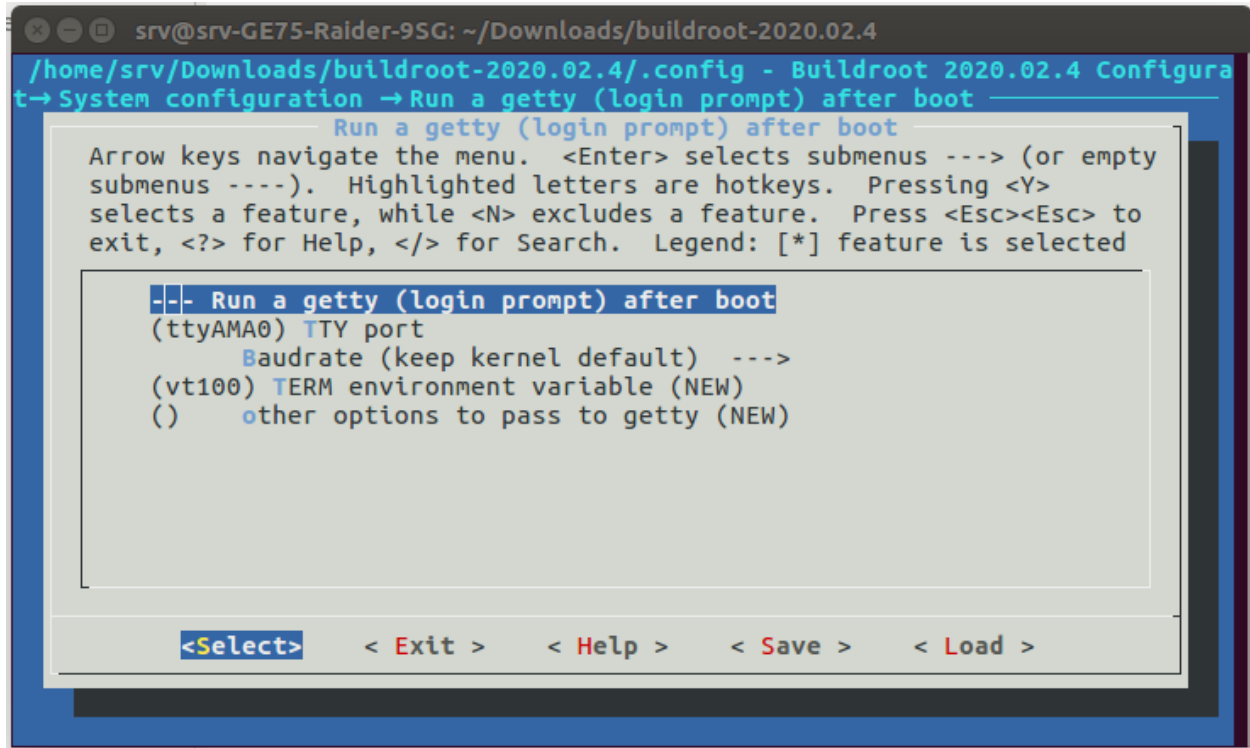
Step 11

After changing the password. Scroll down in the menu and hit enter on the line item "Run a getty (login prompt) after boot (NEW)" as shown below



This will show the following menu

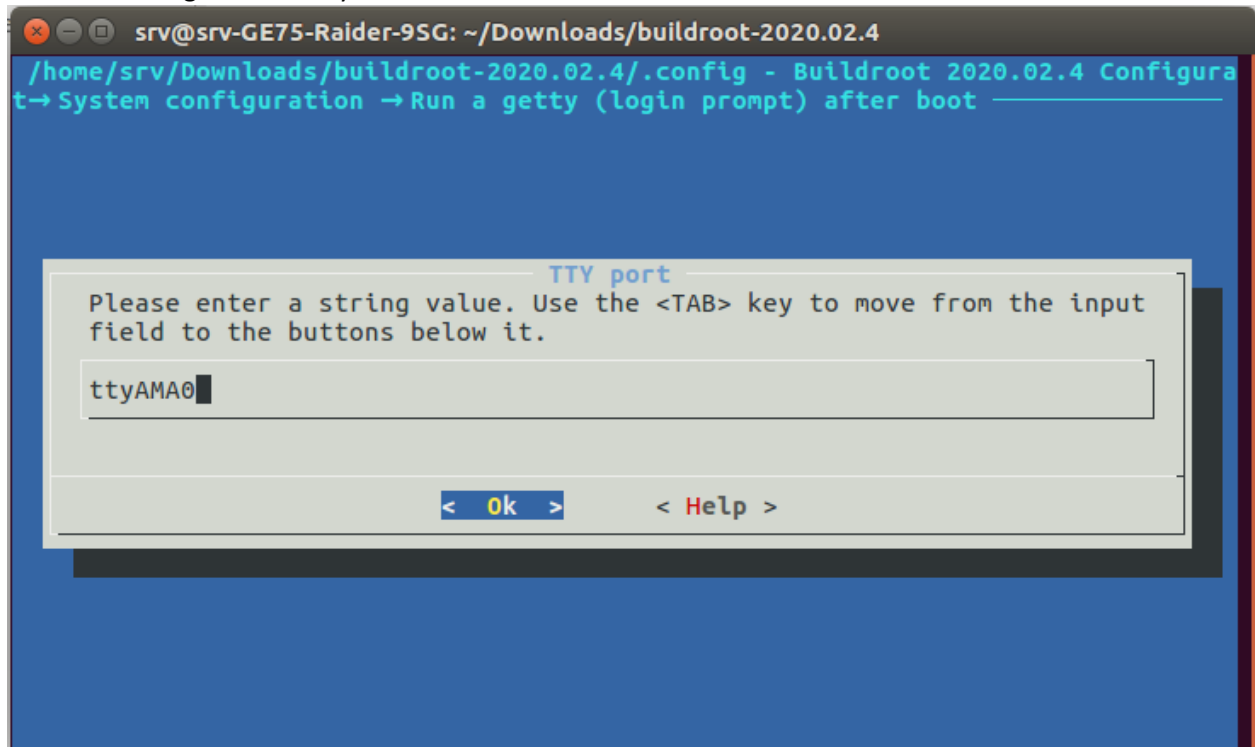
Buildroot Configuration Steps



Step 12

Scroll down and hit enter on "TTY port". You will see the following page.

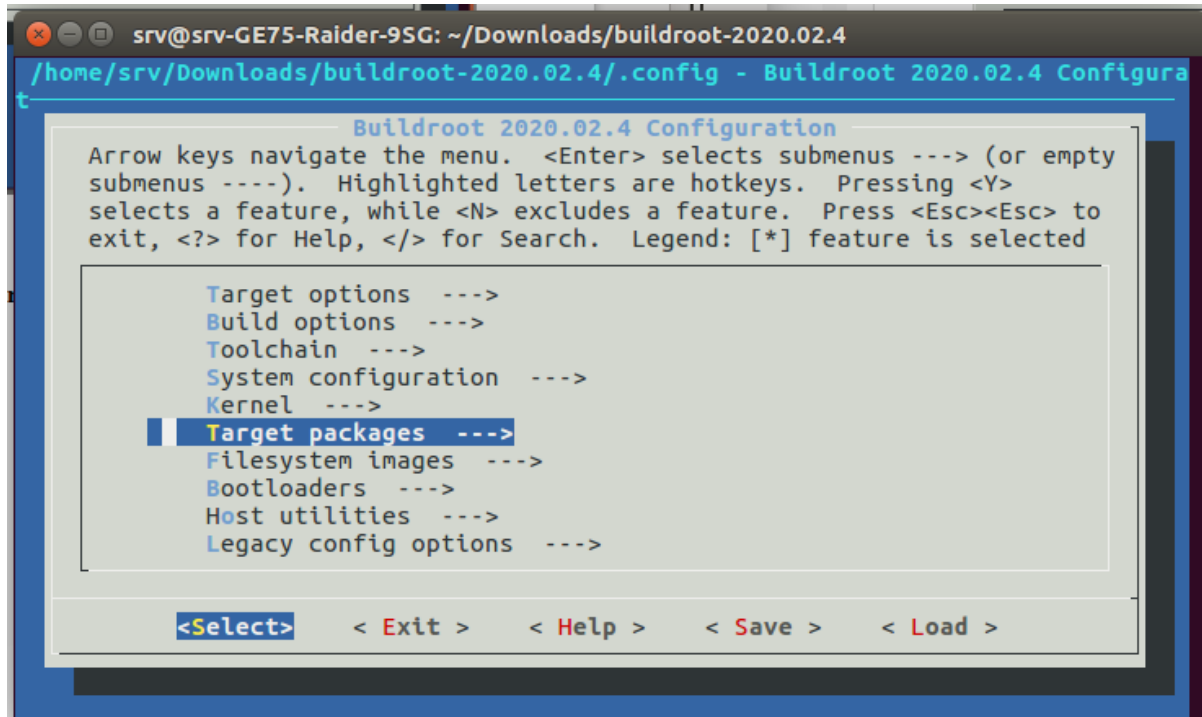
Enter the string value as "ttyAMA0"



Buildroot Configuration Steps

Step 13

Go back to the main menu (use exit) and enter the Target packages as below



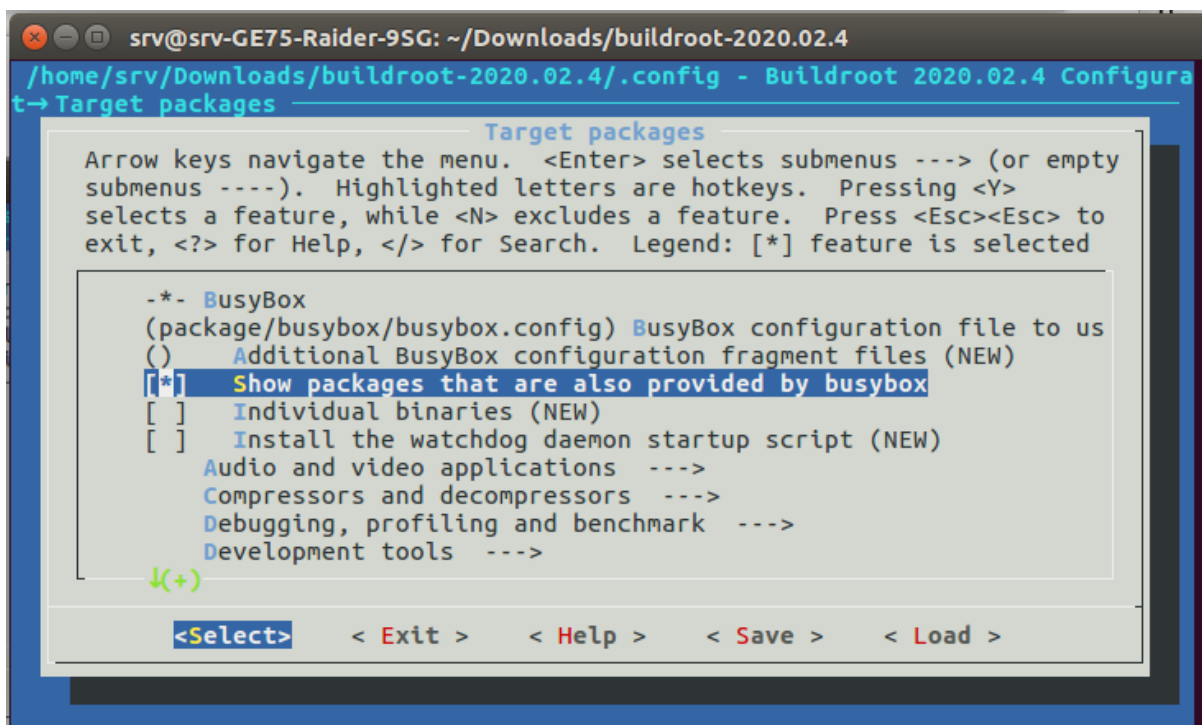
```
srv@srv-GE75-Raider-9SG: ~/Downloads/buildroot-2020.02.4
/home/srv/Downloads/buildroot-2020.02.4/.config - Buildroot 2020.02.4 Configuration

Buildroot 2020.02.4 Configuration
Arrow keys navigate the menu. <Enter> selects submenus ---> (or empty submenus ----). Highlighted letters are hotkeys. Pressing <Y> selects a feature, while <N> excludes a feature. Press <Esc><Esc> to exit, <?> for Help, </> for Search. Legend: [*] feature is selected

Target options --->
Build options --->
Toolchain --->
System configuration --->
Kernel --->
Target packages --->
Filesystem images --->
Bootloaders --->
Host utilities --->
Legacy config options --->

<Select> <Exit> <Help> <Save> <Load>
```

You will see the following menu. Scroll down and choose “Show packages that are also provided by busybox” (Use “space bar” to choose the option)



```
srv@srv-GE75-Raider-9SG: ~/Downloads/buildroot-2020.02.4
/home/srv/Downloads/buildroot-2020.02.4/.config - Buildroot 2020.02.4 Configuration
t→ Target packages

Target packages
Arrow keys navigate the menu. <Enter> selects submenus ---> (or empty submenus ----). Highlighted letters are hotkeys. Pressing <Y> selects a feature, while <N> excludes a feature. Press <Esc><Esc> to exit, <?> for Help, </> for Search. Legend: [*] feature is selected

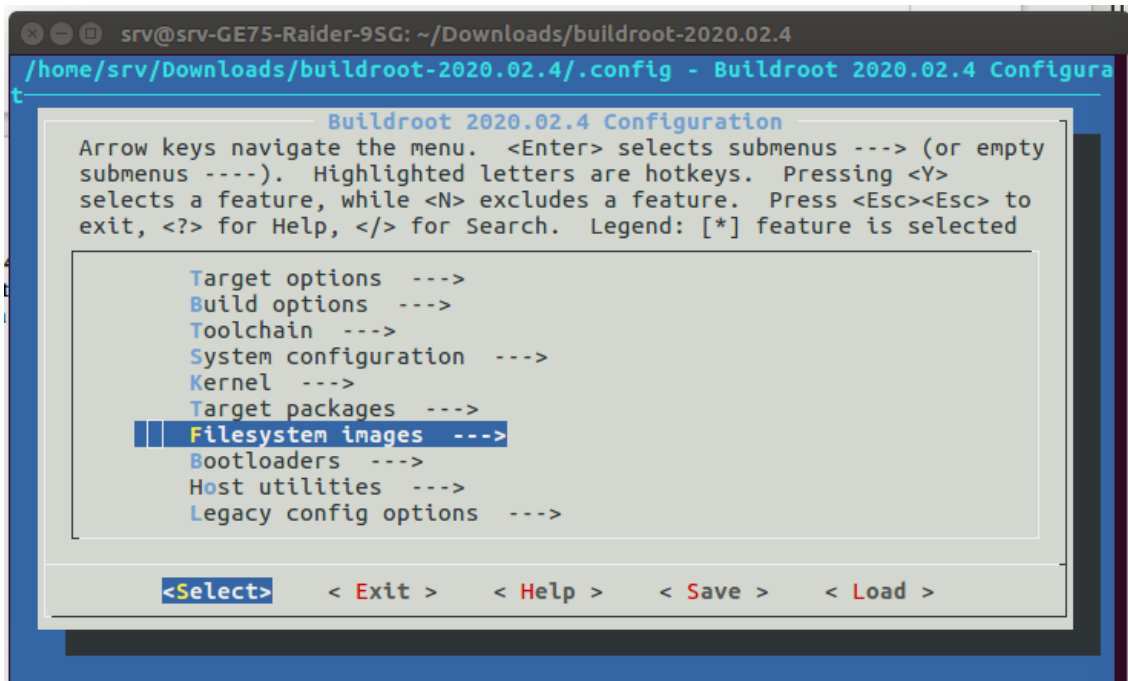
-* BusyBox
(package/busybox/busybox.config) BusyBox configuration file to us
() Additional BusyBox configuration fragment files (NEW)
[*] Show packages that are also provided by busybox
[ ] Individual binaries (NEW)
[ ] Install the watchdog daemon startup script (NEW)
Audio and video applications --->
Compressors and decompressors --->
Debugging, profiling and benchmark --->
Development tools --->

↓(+)
```

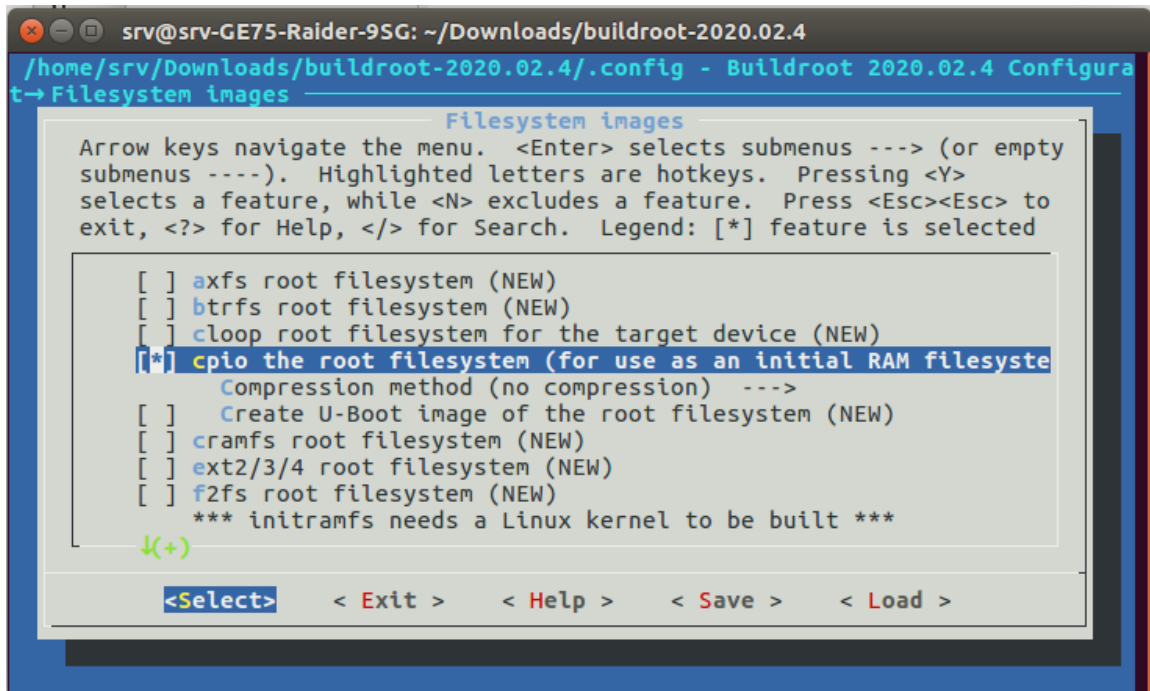

Buildroot Configuration Steps

Step 14

After the above step, exit and navigate back to the main menu. Choose “Filesystem Images” as shown below.



You will see the following menu. Scroll down and choose the “cpio the root filesystem” option as shown below



Buildroot Configuration Steps

Step 15

Exit the menu all the way out. Save the configuration during exit.

You will see the following in the terminal

```
srv@srv-GE75-Raider-9SG:~/Downloads/buildroot-2020.02.4$ make menuconfig
configuration written to /home/srv/Downloads/buildroot-2020.02.4/.config

*** End of the configuration.
*** Execute 'make' to start the build or try 'make help'.

srv@srv-GE75-Raider-9SG:~/Downloads/buildroot-2020.02.4$
```

Step 16

Run “make” here and the output file will be saved to output/images.

```
srv@srv-GE75-Raider-9SG: ~/Downloads/buildroot-2020.02.4/output/images
fakeroot
PATH="/home/srv/Downloads/buildroot-2020.02.4/output/host/bin:/home/srv/Downloads/buildroot-2020.02.4/output/host/sbin:/home/srv/.pyenv/plugins/pyenv-virtualenv/shims:/home/srv/.pyenv/shims:/home/srv/.pyenv/bin:/home/srv/.pyenv/plugins/pyenv-virtualenv/shims:/home/srv/.pyenv/shims:/home/srv/.pyenv/bin:/home/srv/autoware/rosl/install/sick_ldmrs_driver/bin:/opt/ros/kinetic/bin:/home/srv/bin:/home/srv/.local/bin:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin:/usr/local/cuda/bin" FAKEROOTDONTTRYCHOWN=1 /home/srv/Downloads/buildroot-2020.02.4/output/host/bin/fakeroot -- /home/srv/Downloads/buildroot-2020.02.4/output/build/buildroot-fs/tar/fakeroot
rootdir=/home/srv/Downloads/buildroot-2020.02.4/output/build/buildroot-fs/tar/target
table='/home/srv/Downloads/buildroot-2020.02.4/output/build/buildroot-fs/full_devices_table.txt'
ln -snf /home/srv/Downloads/buildroot-2020.02.4/output/host/aarch64-buildroot-linux-gnu/sysroot /home/srv/Downloads/buildroot-2020.02.4/output/staging
srv@srv-GE75-Raider-9SG:~/Downloads/buildroot-2020.02.4$ ls
arch      Config.in      DEVELOPERS     linux          package        toolchain
board     Config.in.legacy  dl             Makefile       README         utils
boot      configs        docs           Makefile.legacy  support
CHANGES  COPYING        fs             output         system
srv@srv-GE75-Raider-9SG:~/Downloads/buildroot-2020.02.4$ cd output/
srv@srv-GE75-Raider-9SG:~/Downloads/buildroot-2020.02.4/output$ ls
build  host  images  staging  target
srv@srv-GE75-Raider-9SG:~/Downloads/buildroot-2020.02.4/output$ cd images/
srv@srv-GE75-Raider-9SG:~/Downloads/buildroot-2020.02.4/output/images$ ls
rootfs.cpio  rootfs.tar
srv@srv-GE75-Raider-9SG:~/Downloads/buildroot-2020.02.4/output/images$
```