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JPL | jpl.nasa.gov

BeagleBone Black Rev C Setup

Windows 10

Step 1 - Navigate your self to the link provided below

- <https://beagleboard.org/getting-started/>

Step 2 - Install the “Flasher” Debian image from the link below

- <https://beagleboard.org/latest-images>

Buster IoT (without graphical desktop) for BeagleBone on-board eMMC flashing via microSD card

- ▶ [AM3358 Debian 10.3 2020-04-06 4GB eMMC IoT Flasher](#)

image for BeagleBone, BeagleBone Black, BeagleBone Black Wireless, BeagleBone Blue, SeeedStudio BeagleBone Green, SeeedStudio BeagleBone Green Wireless, SanCloud BeagleBone Enhanced, element14 BeagleBone Black Industrial, Arrow BeagleBone Black Industrial and MentorI BeagleBone uSomIQ - more info - sha256sum: e339459077b83f6458cb3432494954582aedad897b9f3b62fa390dfdb010a9df

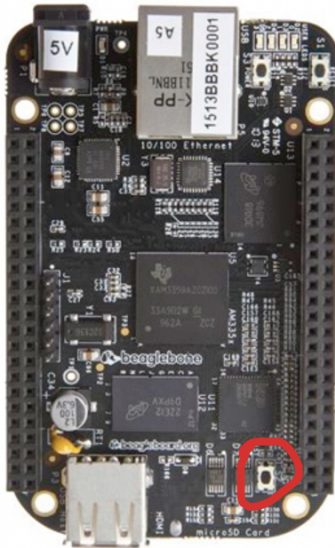
Step 3 - Format your SD Card & place the Debian image from step 2 inside the sd card

Step 4 - In case you need it install the drivers from link bellow

- First plug in your beaglebone black with usb and then install it from the link provided below
- <https://beagleboard.org/static/START.htm>

Step 5 - Make sure to eject the beaglebone black and put the sd card in the beagle bone

Step 6 - First hold the button shown below, then plug the usb in so it will be powered on, which will start the flash process. (This can take anywhere from 30 - 50 minutes).



Note: * You will know its done when the 4 LEDs are turned on

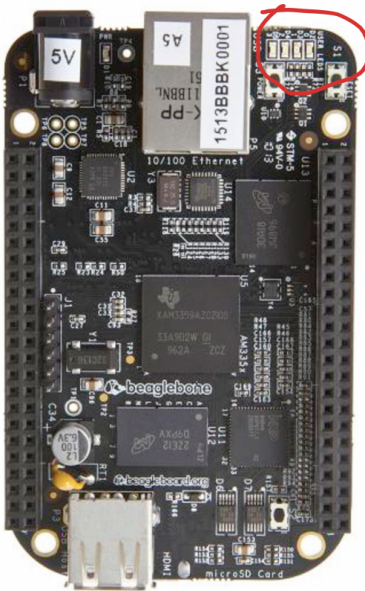


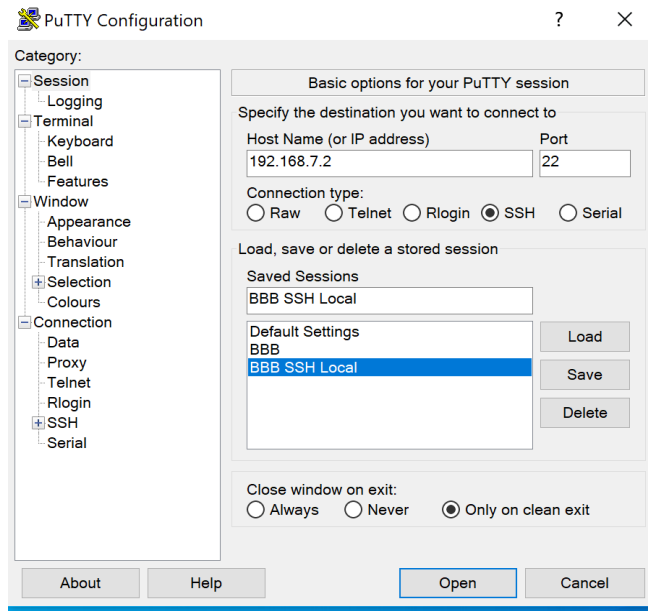
image source: <https://beagleboard.org/black>

Step 7 - Eject the board from the computer, take out the usb, and remove the sd card. This way when you put the usb back and connect it to your computer it wont go through the flash process again.

Step 8 - Install PuTTY from link below

- <https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>

Step 9 - Create a session, save it, and open it. See below



Step 10 - login as: debian, password: temppwd

```
debian@beaglebone: ~  
login as: debian  
Pre-authentication banner message from server:  
Debian GNU/Linux 10  
  
BeagleBoard.org Debian Buster IoT Image 2020-04-06  
  
Support: http://elinux.org/Beagleboard:BeagleBoneBlack\_Debian  
  
default username:password is [debian:temppwd]  
End of banner message from server  
debian@192.168.7.2's password:  
  
The programs included with the Debian GNU/Linux system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*/copyright.  
  
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent  
permitted by applicable law.  
Last login: Mon Apr 6 19:20:40 2020 from 192.168.7.1  
debian@beaglebone:~$
```

Step 11 - Create a helloworld program in C language

```
debian@beaglebone:~$ nano helloworld.c  
  
GNU nano 3.2 helloworld.c  
  
#include <stdio.h>  
int main() {  
    printf("hello world\n");  
    return 0;  
}
```

Step 12 - Compile it using gcc

```
debian@beaglebone:~$ gcc -o hello helloworld.c
```

Step 13 - run it, which the result is shown below

```
debian@beaglebone:~$ ls
bin  hello  helloworld.c  test.py
debian@beaglebone:~$ ./hello
hello world
```

Note:* You should be able to have access to <http://192.168.7.2/> as well, which will open Cloud9 IDE, but the primary focus is the steps above.

Step 14(optional) - Open command prompt and type ssh debian@192.168.7.2

```
C:\Users\ssarkisi>ssh debian@192.168.7.2
Debian GNU/Linux 10

BeagleBoard.org Debian Buster IoT Image 2020-04-06

Support: http://elinux.org/Beagleboard:BeagleBoneBlack_Debian

default username:password is [debian:tempwd]
```

```
debian@beaglebone:~$ ls
bin  hello  helloworld.c  test.py
debian@beaglebone:~$ ./hello
hello world
```

Congratulations!