CPE403 – Advanced Embedded Systems

Design Assignment # 6

DO NOT REMOVE THIS PAGE DURING SUBMISSION:

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Github Repository link (root): https://github.com/jebmarinas/Micro_projects

Youtube Playlist link (root): https://youtu.be/hQtL6oGKNCI

Follow the submission guideline to be awarded points for this Assignment.

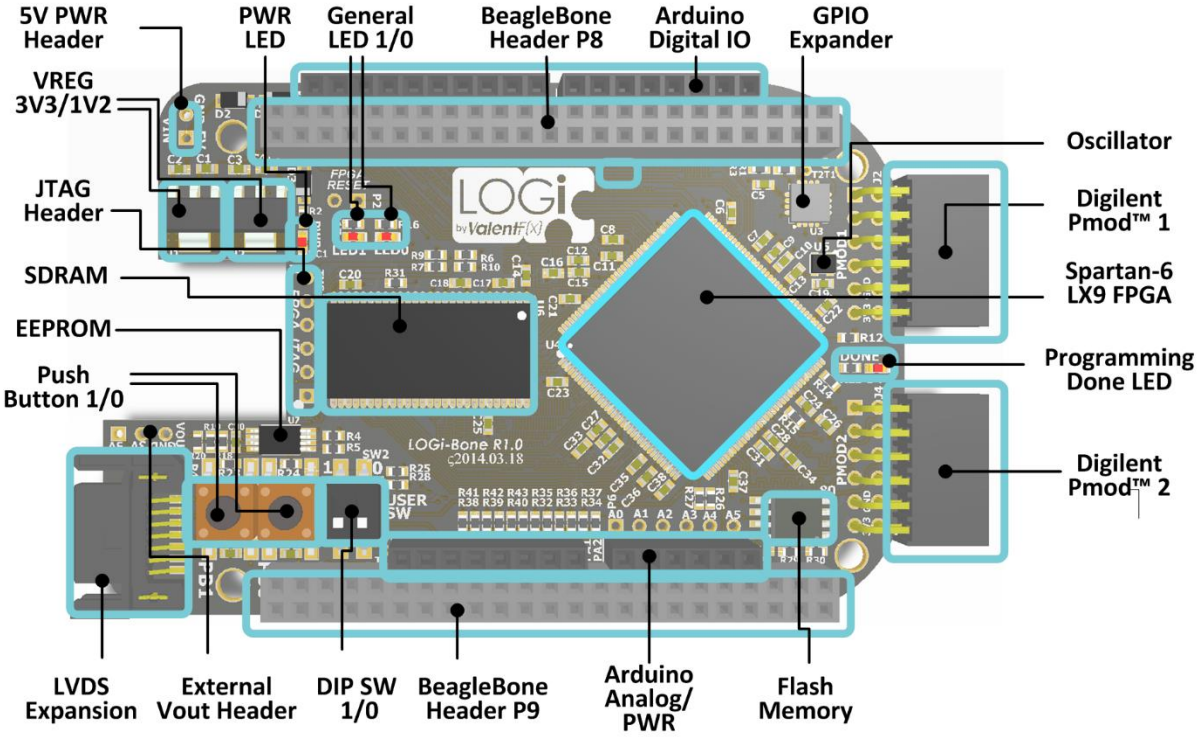
Submit the following for all Assignments:

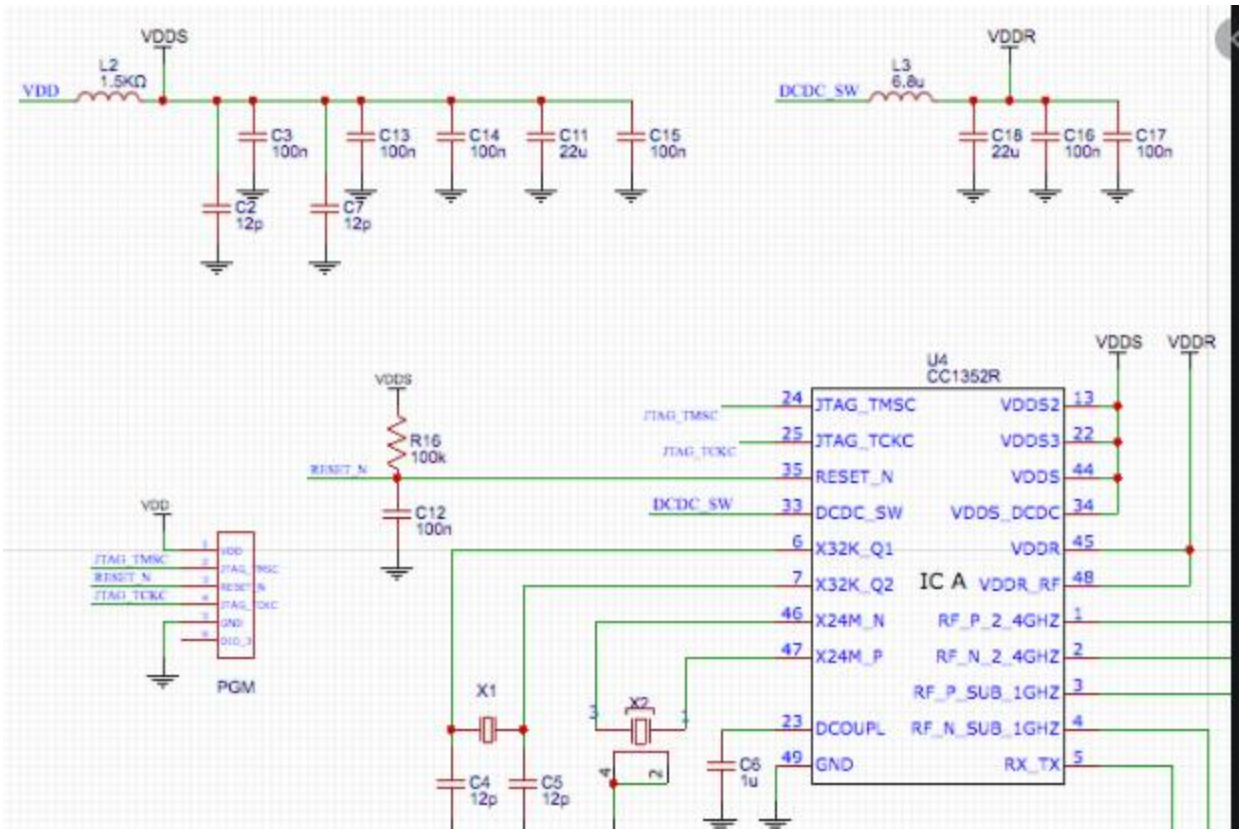
1. In the document, for each task submit the modified or included code (from the base code) with highlights and justifications of the modifications. Also include the comments. If no base code is provided, submit the base code for the first task only.
2. Create a private Github repository with a random name (no CPE/403, Lastname, Firstname). Place all labs under the root folder TIVAC, sub-folder named Assignment1, with one document and one video link file for each lab, place modified c files named as asng_taskxx.c.
3. If multiple c files or other libraries are used, create a folder asng1_t01 and place these files inside the folder.
4. The folder should have a) Word document (see template), b) source code file(s) with startup_ccs.c and other include files, c) text file with youtube video links (see template).
5. Submit the doc file in canvas before the due date. The root folder of the github assignment directory should have the documentation and the text file with youtube video links.
6. Organize your youtube videos as playlist under the name “cpe403”. The playlist should have the video sequence arranged as submission or due dates.
7. Only submit pdf documents. Do not forget to upload this document in the github repository and in the canvas submission portal.

1. Code for Tasks. for each task submit the modified or included code (from the base code) with highlights and justifications of the modifications. Also include the comments. If no base code is provided, submit the base code for the first task only. Use separate page for each task.

-No Code was changed , since we area using old hex , so old files from assignments before

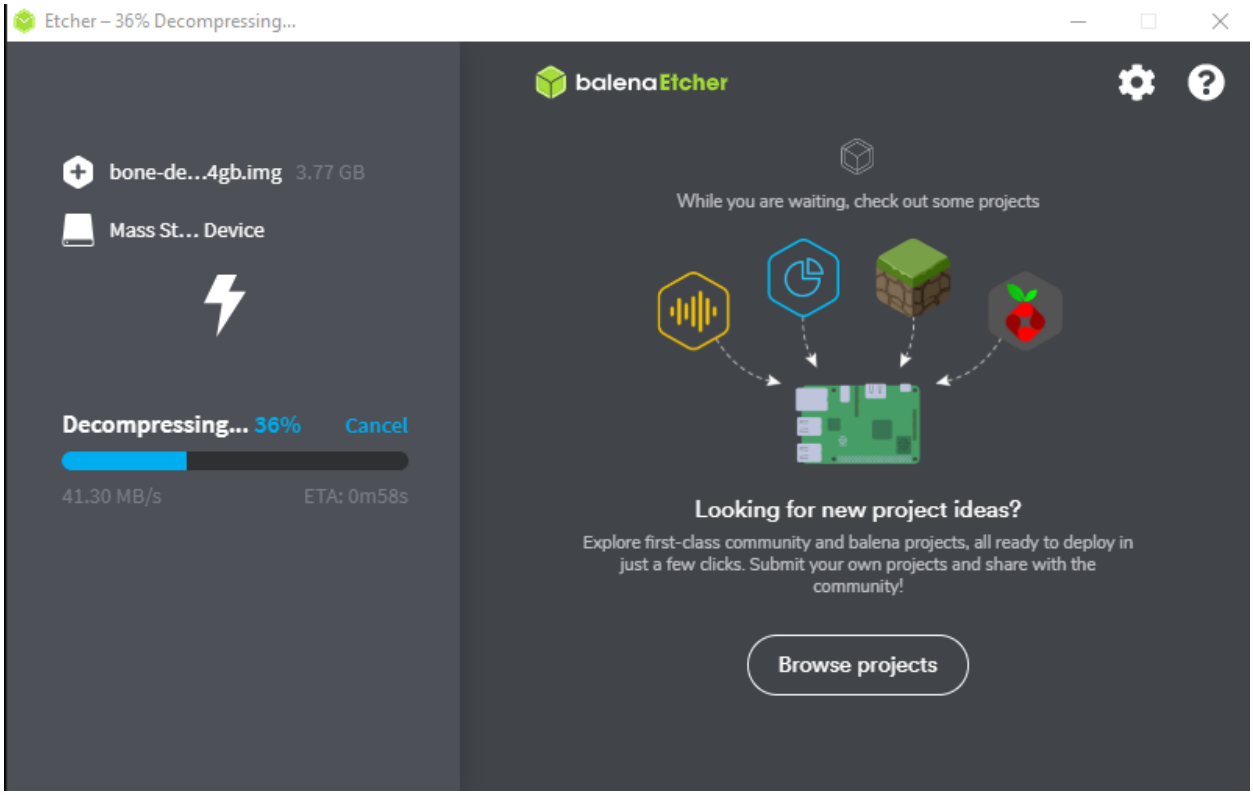
2.Block diagram and/or Schematics showing the components, pins used, and interface.



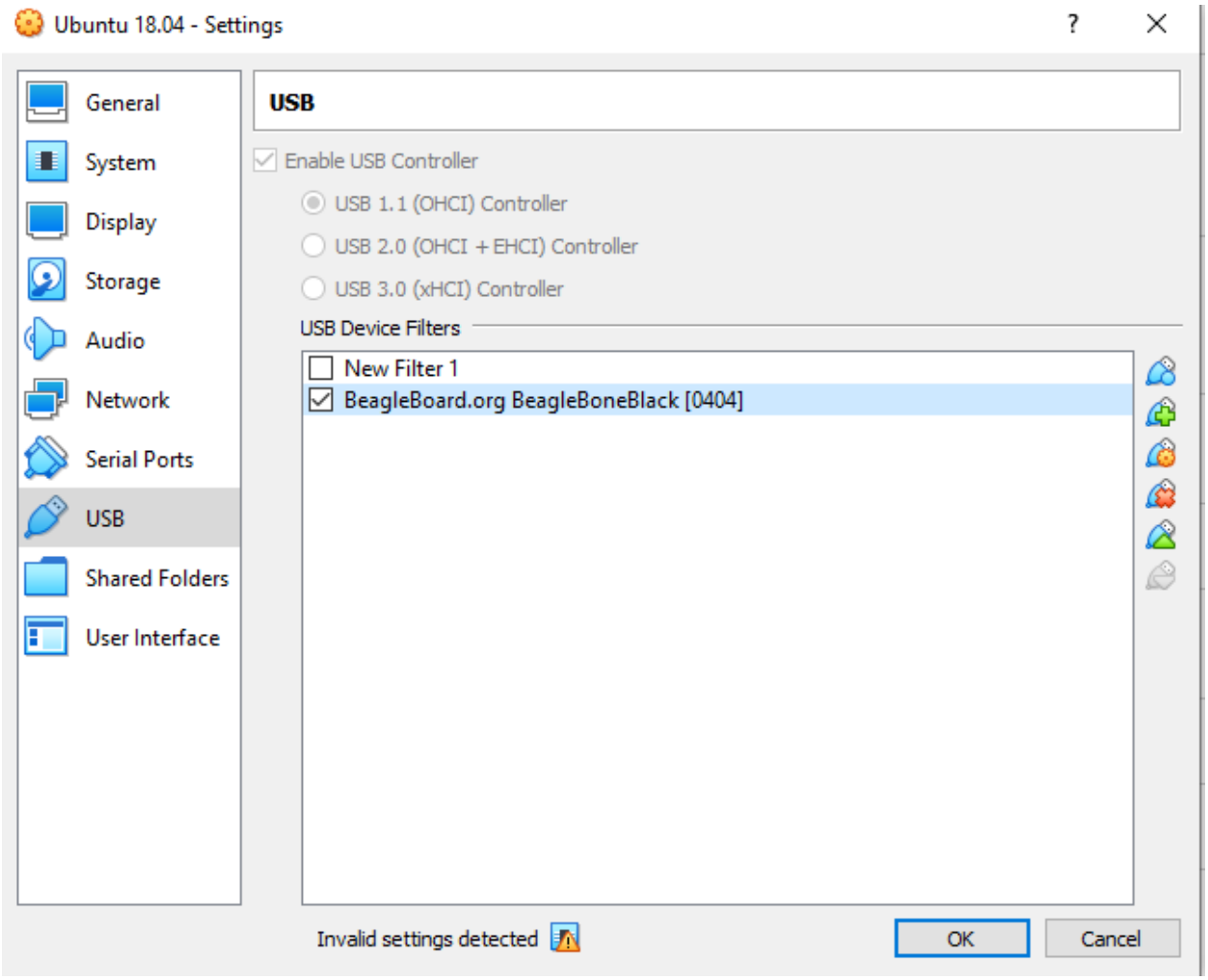

VDDS
VDD
L2
1.5KΩ
C3
100n
C13
100n
C14
100n
C11
22u
C15
100n
C2
12p
C7
12p
VDDR
DCDC_SW
L3
6.8u
C18
22u
C16
100n
C17
100n
U4
CC1352R
JTAG_TMSC
JTAG_TCKC
RESET_N
DCDC_SW
X32K_Q1
X32K_Q2
X24M_N
X24M_P
DCOUPL
GND
VDDS2
VDDS3
VDDS
VDDS_DCDC
VDDR
VDDR_RF
RF_P_2_4GHZ
RF_N_2_4GHZ
RF_P_SUB_1GHZ
RF_N_SUB_1GHZ
RX_TX
IC A
R16
100k
C12
100n
X1
X2
C4
12p
C5
12p
C6
1u
PGM

2. Screenshots of the IDE, physical setup, debugging process - Provide screenshot of successful compilation, screenshots of registers, variables, graphs, etc.

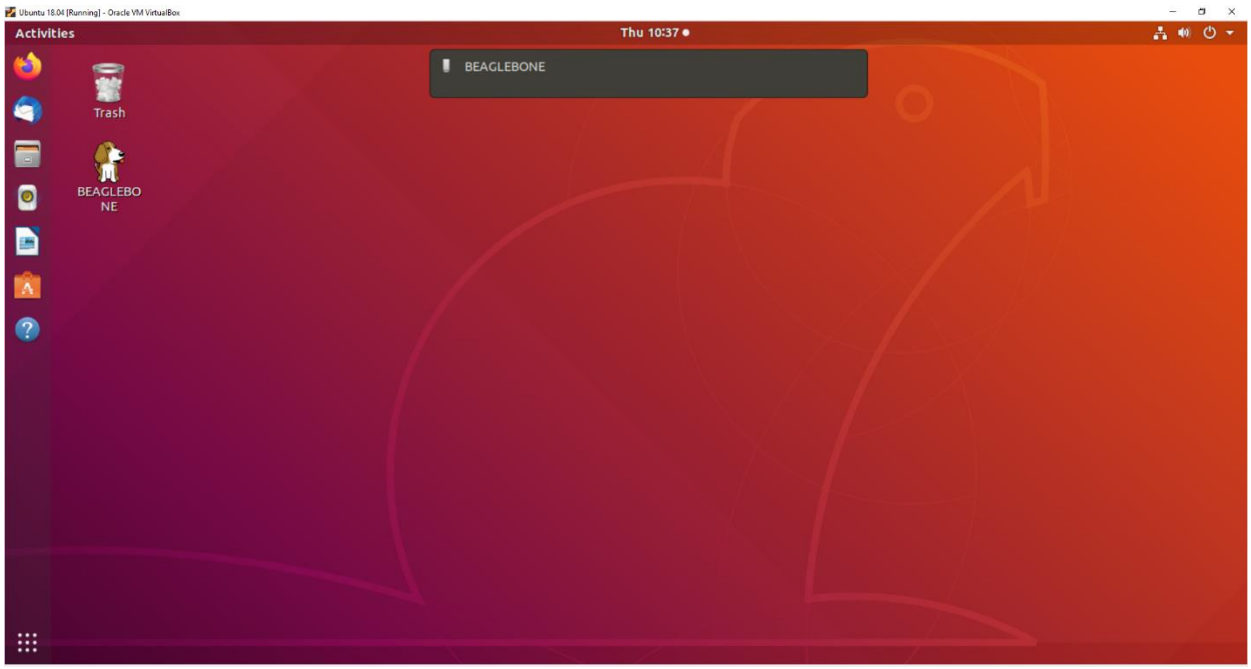
When I successfully downloaded the Debian image.



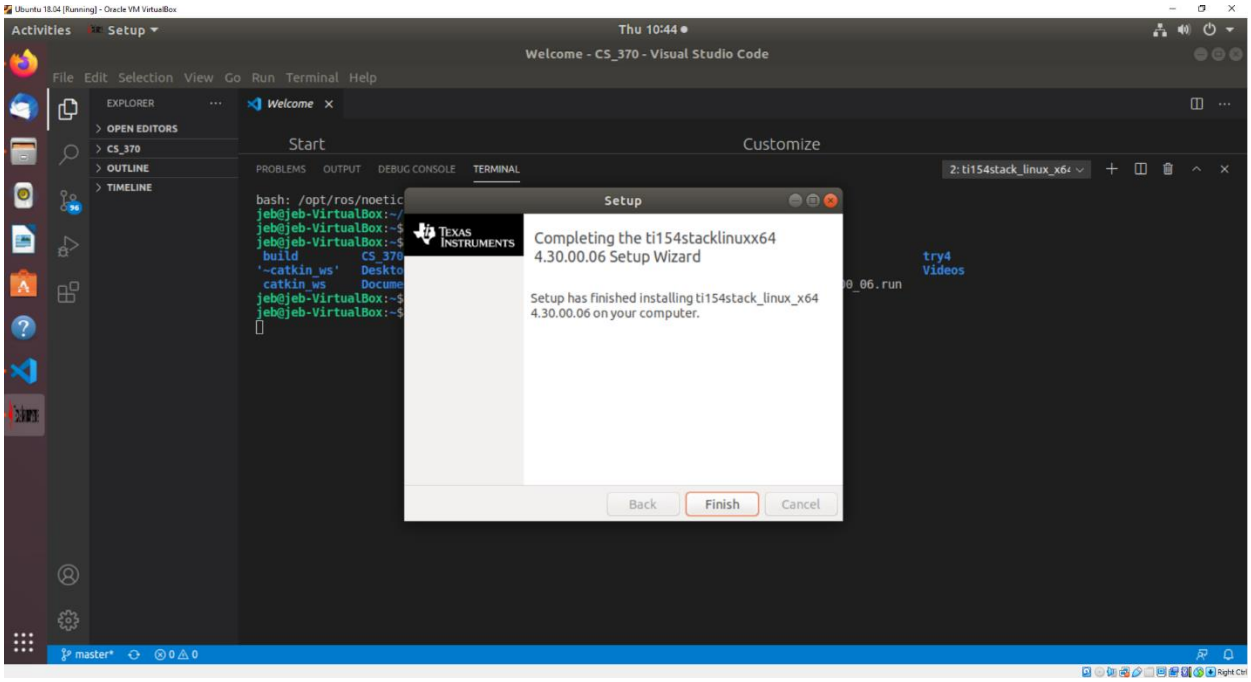
Successfully connecting the board onto my VM device:



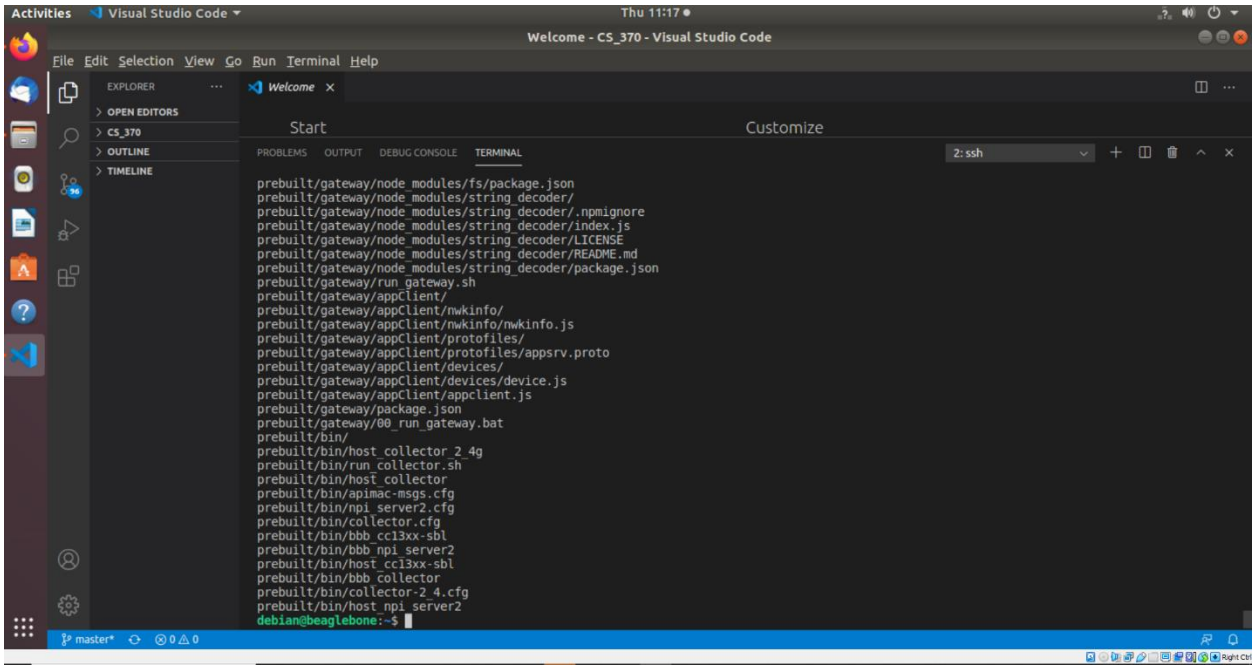
When Beagle Board is being successfully recognized in my Virtual Box:



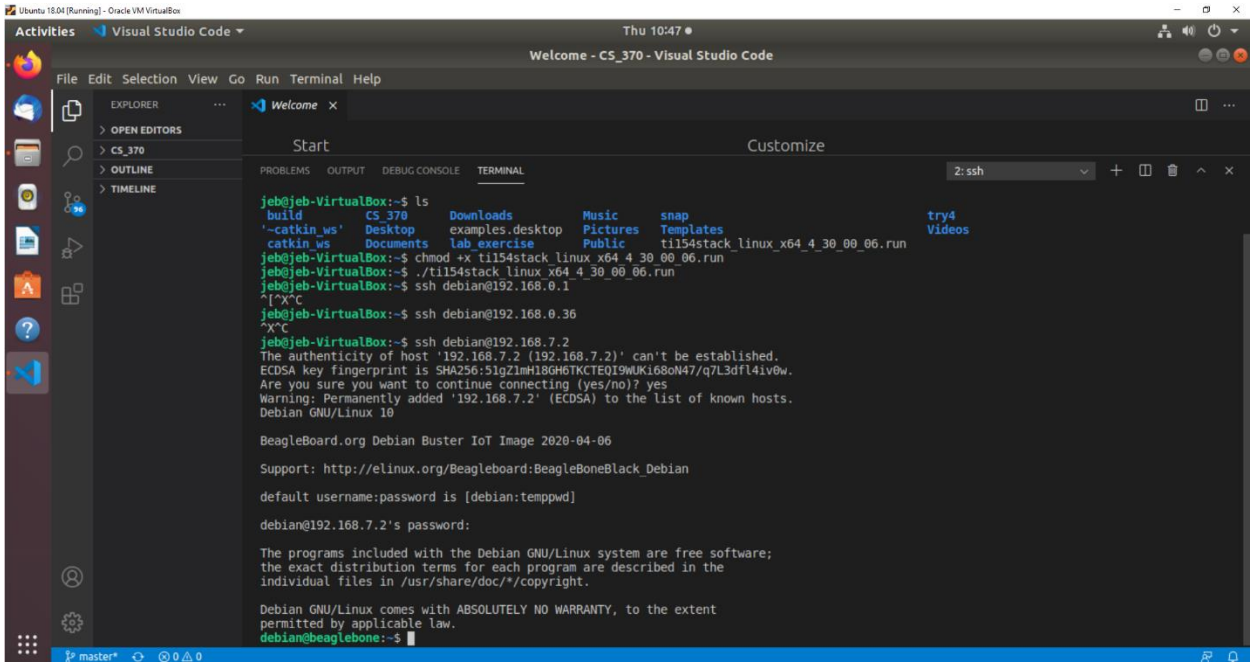
Successful download of TI-54 Linux:



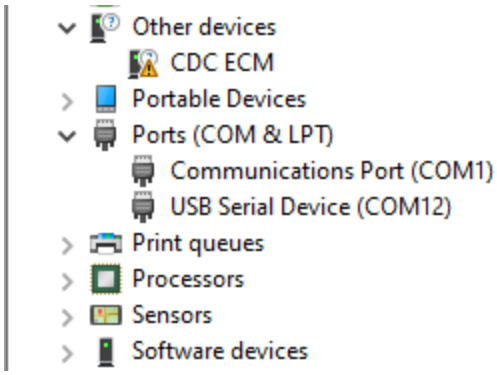
Successful file Extraction:



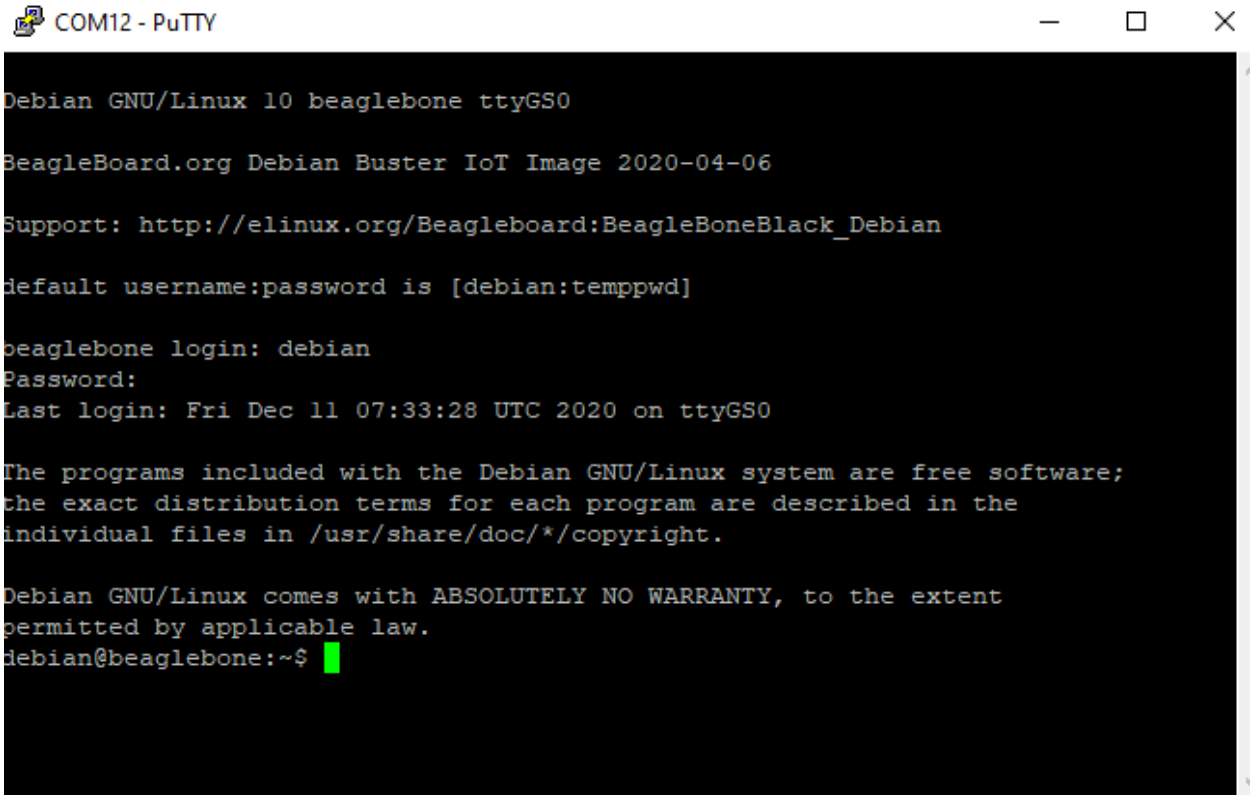
Successful logged in for Beagle Bone through UBUNTU:



Successful port host connection



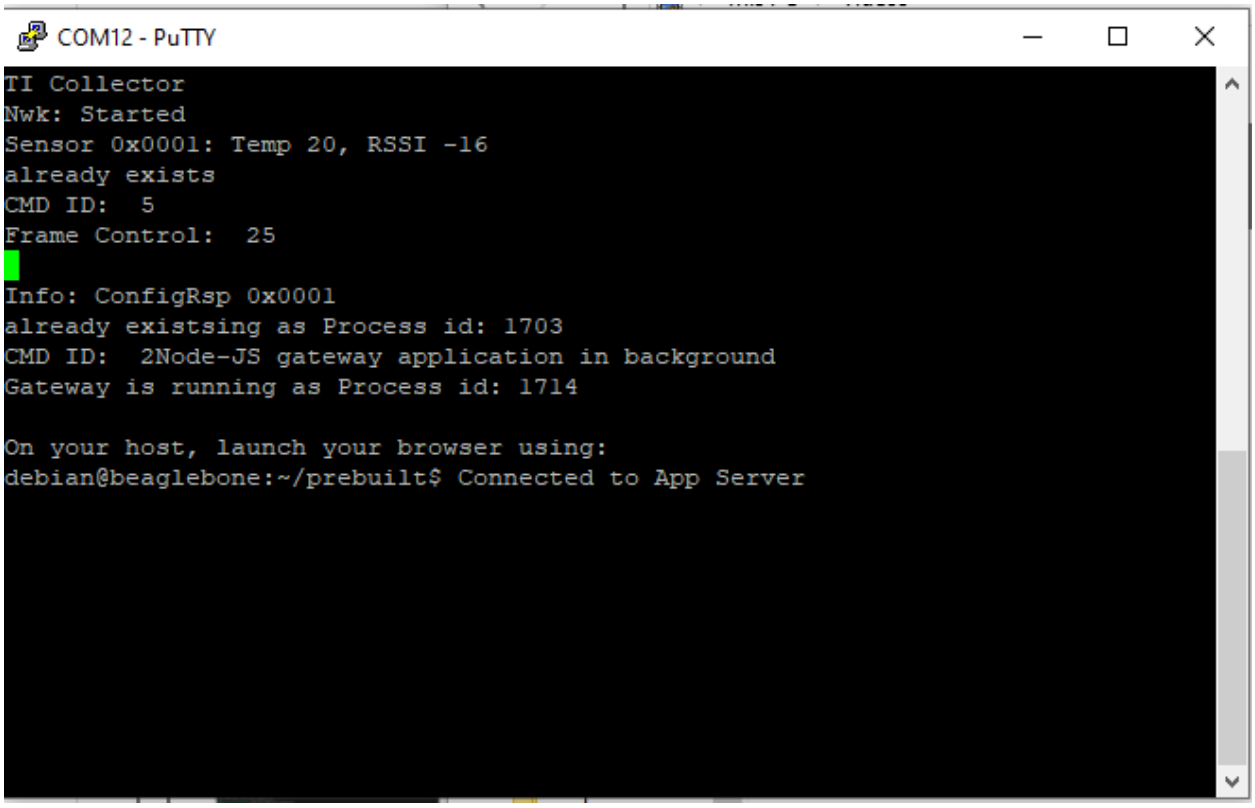
Successful Host log onto Beagle Bone:



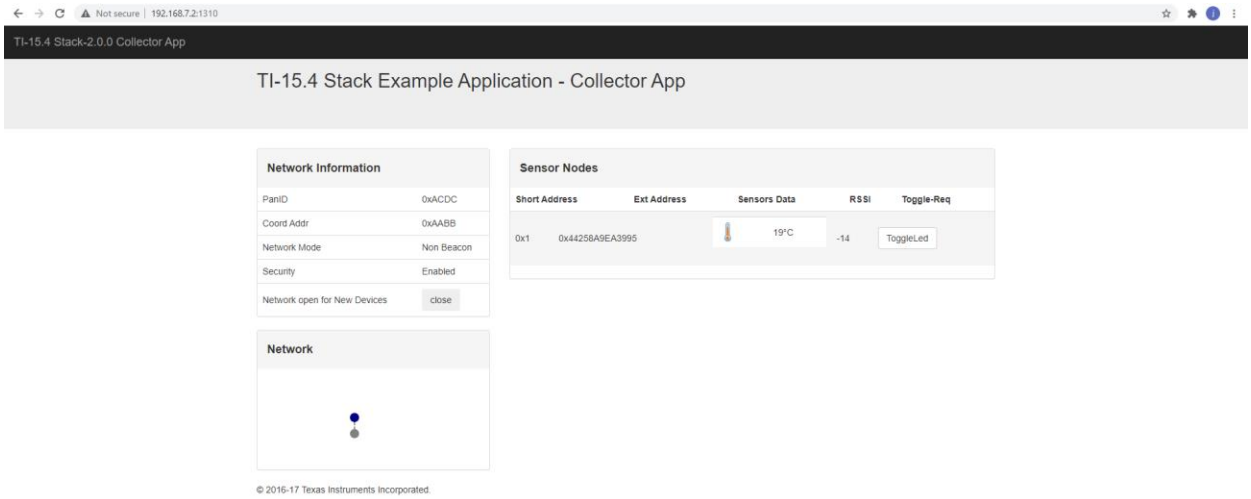
Successful connection through host and the sensor:

```
Debian GNU/Linux 10 beaglebone ttyGS0

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

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

default username:password is [debian:temppwd]

beaglebone login: debian
Password:
Last login: Fri Dec 11 05:18:15 UTC 2020 from 192.168.7.1 on pts/0

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.
debian@beaglebone:~$ ls -l /dev/ttyACM*
crw-rw---- 1 root dialout 166, 0 Dec 11 05:14 /dev/ttyACM0
crw-rw---- 1 root dialout 166, 1 Dec 11 05:14 /dev/ttyACM1
debian@beaglebone:~$
```

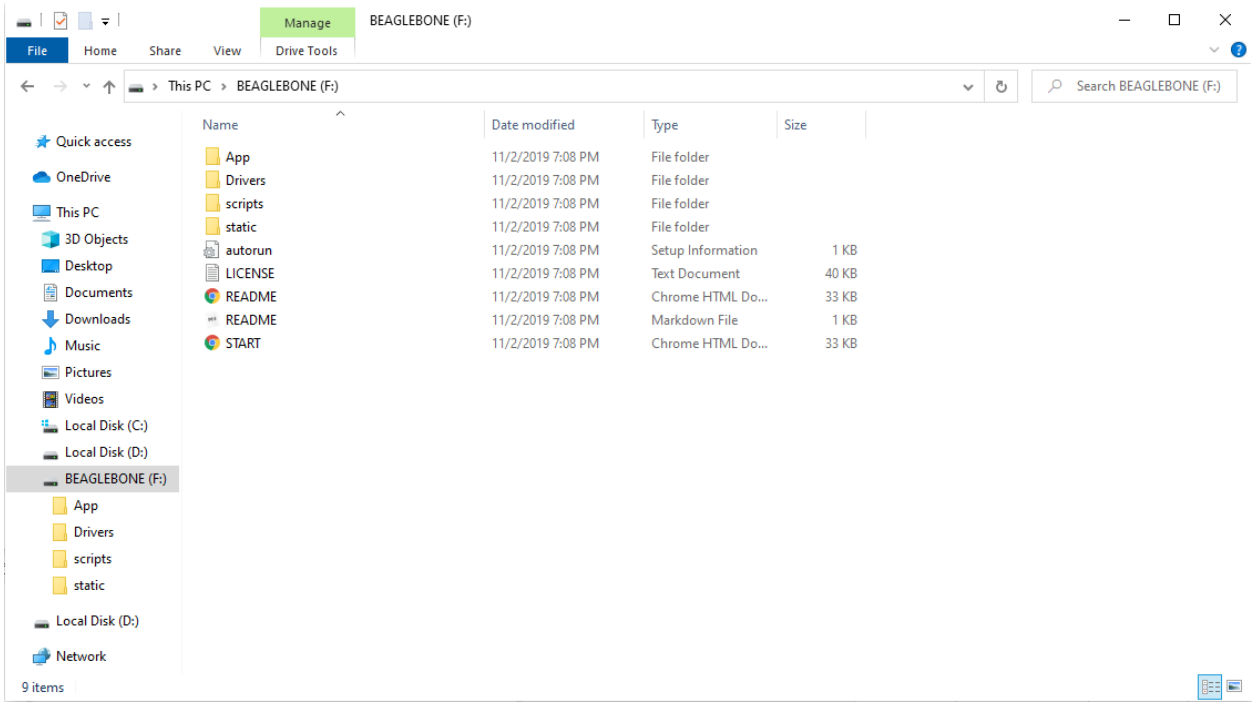
Successful Connection to my TI host:



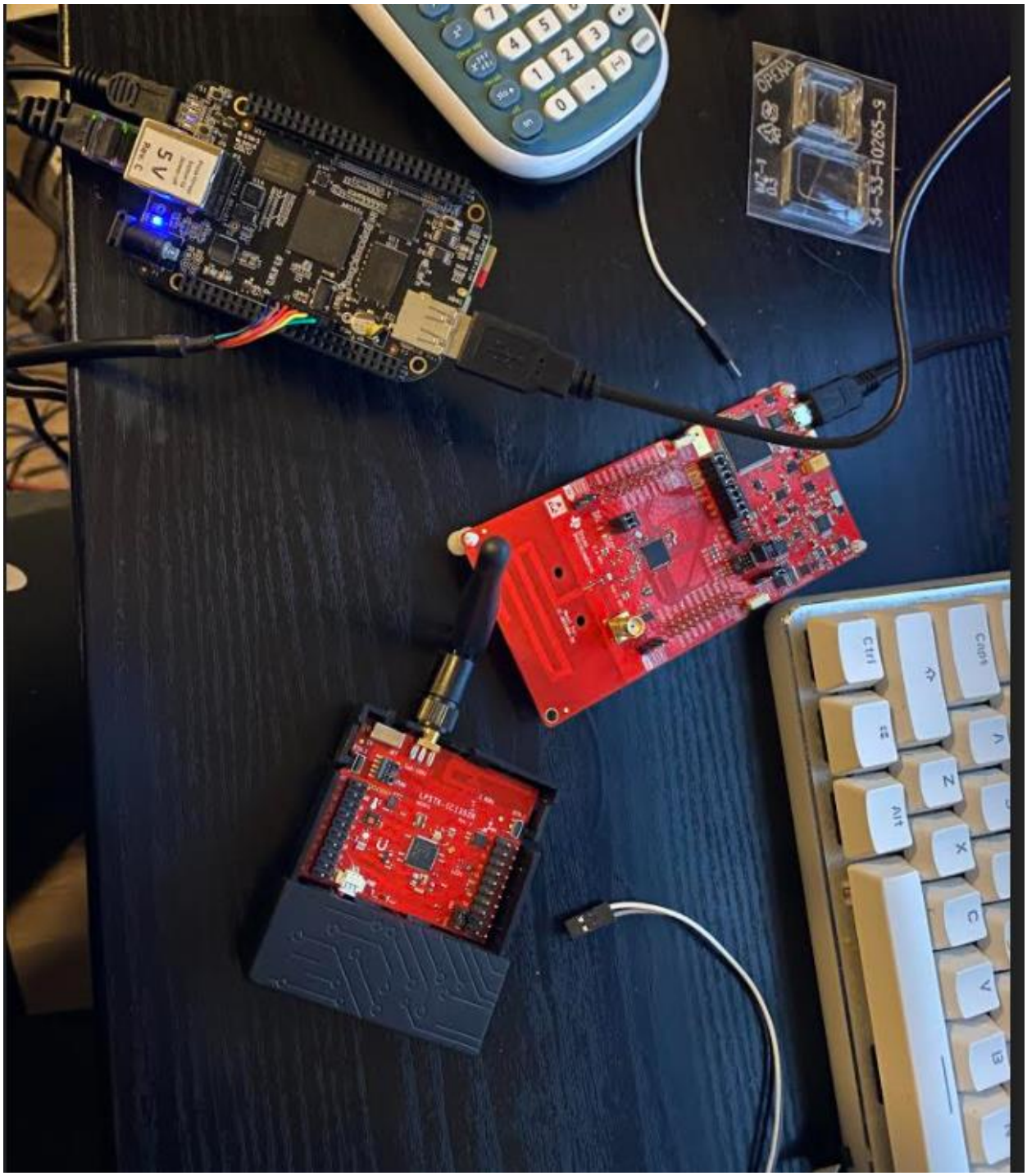
Successful Sensor Output:



Inside Beagle bone files



Set up:


Ctrl
Alt
X
C
V
B
N

3. Declaration

I understand the Student Academic Misconduct Policy - http://studentconduct.unlv.edu/misconduct/policy.html

"This assignment submission is my own, original work".

Name of the Student

Jeb Marinas