



Learning Report

# Embedded Linux



LTTs  
GLOBAL  
ENGINEERING  
ACADEMY



*L&T Technology Services*

**Group 1**

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## Document History

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## Day 1 Activity:

### • 1. Description

1. After watching the learning videos write the step by step configuration of the boards and set up in the window as well as in linux
2. Differences between Raspberry pie , Dragon, imx7 Sabre, BBB
3. Differences in different versions of BBB and write the evolution of the Beagle bone.
4. In Excel make the Pin expansion header of BBB and locate the various peripherals of Bone.

### • Learning Outcome

- Created a new remote desktop by using the BeagleBone processor and working on it.
- To understand the diffence between different processors available and between the BBB versions too.
- To understand the Pin expansion header of BBB.

### • Challenges

Working on Beagle Bone with linux .

### • Resources

1. <https://www.youtube.com/watch?v=UMEUo6Wm6u4&list=PLGs0VKk2DiYyThNvj6VyDFmOnQ8ncXk8b&index=1>
2. <https://www.youtube.com/watch?v=c81tmb7WJxw&list=PLGs0VKk2DiYyThNvj6VyDFmOnQ8ncXk8b&index=2>

### • Submission

GIT HUB: [https://github.com/99003684/Embedded\\_Linux\\_Submissions](https://github.com/99003684/Embedded_Linux_Submissions)

### • Tasks done

Task.No.	Task	Done by
1.	Step by step configuration of BBB board and set up in windows and linux	Poojashri N
2.	Differences between Raspberry pie, Dragon, im7 Sabre, BBB	Reeshav Rout
3.	Differences in different versions of BBB and evolution of BeagleBone.	Reeshav Rout
4.	Pin expansion of BBB and peripherals of Bone	Manisha Chandra

## Day 2 Activity:

- **1. Description**

1. Testing MLO image on BBB and Testing U-boot image on BBB. Explain each and every section of stage in the learning report.
2. Spend some time in uboot area and execute the commands and also check for various environmental variables.
3. Learn and quote the linux boot sequence after the booting.

- **Learning Outcome**

- To learn about the testing of MLO images and analysed the logs in the terminal window.
- To understand the three bootloader stages and the environment variable uenv.txt file.
- To understand the branching and handshaking between files in boot sequence while booting.

- **Challenges**

Working on Linux Kernel booting stage.

- **Resources**

3. <https://www.youtube.com/watch?v=UMEUo6Wm6u4&list=PLGs0VKk2DiYyThNvj6VyDFmOnQ8ncXk8b&index=1>
4. <https://www.youtube.com/watch?v=c81tmb7WJxw&list=PLGs0VKk2DiYyThNvj6VyDFmOnQ8ncXk8b&index=2>

- **Submission**

GIT HUB: [https://github.com/99003684/Embedded\\_Linux\\_Submissions](https://github.com/99003684/Embedded_Linux_Submissions)

- **Tasks done**

Task.No.	Task	Done by
1.	Testing MLO image on BBB and Testing U-boot image on BBB.	Poojashri N
2.	executing the commands and checked for various environmental variables.	Reeshav Rout
3.	linux boot sequence	Manisha Chandra