Tutorial 3: The Jetson: Introduction

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What you should know about this board

The complete specs of the Board can be found at - Jetson Linux Homepage⧉. In short, this dev board has,

- An ARM quad core Cortex-A15 CPU @ 2.3GHz
- An NVidia Kepler GK20 GPU(192 CUDA cores)
- 16GB of storage
- 2GB RAM
- Power: Takes in 12V at a current range of 1 - 5A. (Under Normal working conditions, current draw = 0.5A)
- Has optimized OpenCV libraries. Harnesses the CUDA cores for better and faster results
- The board comes up with a customised 'Linux4Tegra' Distribution - NVidia's distribution of Ubuntu 14.04 with some pre-compiled binaries

There is extensive material with regard to powering on the Jetson and logging into the Desktop GUI. This NVidia⧉ guide covers the steps needed for setting up the board. There are 3 sections in that guide - 'Setting up' , 'Flashing the Jetson' and 'Jetpack'.

We only need to go through the first section for now.

The section for 'Flashing' the Jetson is not required for us right now because when we boot a brand new Jetson, it already contains the Linux4Tegra files and an install script.

For developer tools related to CUDA and cross compiling resources, users can follow the 3rd section that talks about the Jetpack.

References

- Jetson Wiki⧉
- JetsonHacks Blog Post⧉ (Its really good)
- NVidia Forums⧉
- A Setting up Jetson Video⧉
- Nvidia Page⧉