**High Performance Embedded Systems**

**Assignment 1**

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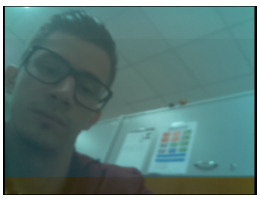
|---|---|
| **Group #:** | 1 |
| **Final Grade:** | 110.00% |

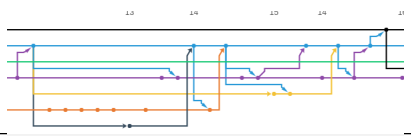
**Part I: QEMU**

| Item | Description | Total | Grade | Comments |
|---|---|---|---|---|
| Full boot deliverables | - images/<br>- u-boot-qemu.log<br>- linux-qemu.log<br>- qemu_boot.log<br>- video.txt | 15% | 15.00% | - It is okay, the log files were not obtained from the separate images (u-boot for example found the kernel which should not be possible running u-boot only) but in any case it looks really good. |
| Full boot execution | Correct execution of uboot, kernel and file system on QEMU based on video and local testing. | 25% | 25.00% | - It is not necessary to set boot delay time to zero, actually it usually makes it harder to stop uboot and it is usually done at the last stages of development once the system is ready for production. |
| Bonus | Add boot commands to u-boot environment | 10% | 10.00% | - Despite you did not follow the instructions and modified the configuration file manually, you did configured u-boot correctly, so the point are yours. Not always you have the chance to go over the menuconfig screen so try to understand how to do it manually. |

**Part II: Yocto & NEON**

| Item | Description | Total | Grade | Comments |
|---|---|---|---|---|
| Yocto meta-layer | Correct creation of the meta-tec layer and tec-image.<br>Inherits from the console-image.<br>Adds all new recipes into the tec-image and includes them in the final image. | 5% | 5.00% | - Be careful with cleaning up the code, in general, any commented line should be removed from final release. |
| Yocto recipes | Correct creation of the following recipes:<br><br>- rgb2yuv_c<br>- rgb2yuv_intrinsics<br><br>This includes correct build and installation of the binaries into the file system.<br>Also it includes the presence of the required PDF documentation. | 10% | 10.00% | - When dealing with autotool based applications it is better to tar it up instead of including every file in the SRC_URI variable.<br>- SRCREV is not necessary when using local files. |
| Autotools usage | Correct usage of autotools for the compilation of the programs. | 10% | 10.00% | |
| Getopt implementation | Correct usage of getopt for the command line options | 5% | 5.00% | |
| Application implementation and functionality | The application meets with the requirements proposed and is totally functional providing the correct image conversion. | 25% | 25.00% | - Be careful, not all ARM architectures has NEON acceleration:<br><br>http://infocenter.arm.com/help/index.jsp?topic=/com.arm.doc.ddi0198e/Cacheeja.html<br><br>- Indentation is pretty clear, it might require some spacing to make code more readable but it looks okay.<br>- By default preprocessor directives are defined at the top of the file when they define a macro.<br>- Usually preprocessor directives are not indented with the code - it looks bad but that what it is :)<br><br>- ough! some color problems, was it with the IMX219 camera?<br><br>  |

**General**

| Item | Description | Total | Grade | Comments |
|---|---|---|---|---|
| Git control versioning | The delivery is correctly made using a git repository with the layout suggested and following the required work flow.<br>User participation from all team members.<br>Avoid using a unified commit or last hour commits (development must be continuous) | 5% | 5.00% | - I just ignored assignment-2/ directory. It was totally useless. I wonder why you didn't remove it after merge.<br>- Ideally, it should not look like this. It looks you had some fun :)<br><br>  |