High Performance Embedded Systems
Assignment 1

Group #:	8
Final Grade:	37.50%

Part I: QEMU

Item	Description	Total	Grade	Comments
Full boot deliverables	- images/ - u-boot-qemu.log - linux-qemu.log - qemu_boot.log - video.txt	15%	7.50%	- Did not follow delivery instructions nor the suggested layout. The repo is a total mess. - Did not provided the required images.
Full boot execution	Correct execution of uboot, kernel and file system on QEMU based on video and local testing.	25%	5.00%	Only the video was provided.
Bonus	Add boot commands to u-boot environment	10%	0.00%	

Part II: Yocto & NEON

Item	Description	Total	Grade	Comments
Yocto meta-layer	Correct creation of the meta-tec layer and tec-image. Inherits from the console-image. Adds all new recipes into the tec-image and includes them in the final image.	5%	0.00%	- The meta-layer does not include any valid image and it does not inherit from console-image. - tec-image.bb is not supposed to include any compilation commands for other recipes. It should only inherit from the console-image and include the required packages for the images. - The URL of the files are with absolute path - this is useless in general since it makes it dfficult to distribute.
Yocto recipes	Correct creation of the following recipes: - rgb2yuv_c - rgb2yuv_intrinsics This includes correct build and installation of the binaries into the file system. Also it includes the presence of the required PDF documentation.	10%	0.00%	- No PDF files provided within the recipes and thus, no documentation is installed in the target. - These recipes does not compile since they are missing the .bb file.
Autotools usage	Correct usage of autotools for the compilation of the programs.	10%	0.00%	- No autotools implementation
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%	15.00%	- Well I had to create the recipes to test your code but I made it :) - rgb2yuv-c worked properly - rgb2yuv-intrinsics is buggy, it does not provide a valid output file, looking quickly at your code it looks like you forgot to write to the output file. - Wrong usage of NEON to speed up the conversion. It is expected that using NEON you can process several samples on a single instruction (SIMD) and speed up processing time. Reading the image in 3-bytes fragments and processing just that with NEON is a huge waste of resources.

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. User participation from all team members. Avoid using a unified commit or last hour commits (development must be continuous)	5%	5.00%	- It is not ideal but you tried it. Please note that direct commits to master should be avoided on any project. Ideally everything merges to develop before it goes to master.