University of Toronto, Faculty of Applied Science and Engineering

Department of Electrical and Computer Engineering

**ECE 243S – Computer Organization – 2015**

**Project Proposal Form**

After ensuring that your project idea is unique, you will use this form to describe your project (point form preferred), assess its difficulty, and outline what you expect to achieve each week of your project work. You **must submit the filled form on Blackboard two days before your scheduled project lab session (March 15-17) and bring it to the first project lab session (March 17-19).**

The TA will advise you if changes are needed to your project proposal so it is sufficiently, but not overly challenging. After you implement the changes, **the TA will then approve your project proposal.** You will then make **two copies** of the final filled form: one will be kept by the TA, and the other one will be for your reference. Your ability to successfully implement all that was approved in your proposal will determine your project functionality marks.

# Group Info

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| **Station Number** | **First Name** | **Last Name** | **Student Number** | **Contribution [0..100]**  **(filled during 3rd lab)** |
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# One Sentence Project Description (as posted on Piazza)

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# Technical Description of the Project

Describe your project in more technical details and include a system block diagram.

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# Technical Description of the Project Core

The project core is a minimum part of your project that you are committing to deliver. Failing to implement this part will result in loss of functionality marks.

Describe your project core here.

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# Assessment of Project’s Difficulty

Please check off each accomplishment you propose in your project and indicate whether that accomplishment is part of the project core and whether it is interrupt-driven (if applicable). For accomplishments with multiple units such as the LEDs, switches, motors, etc., indicate the number of such units used. For example if you are using two Lego motors place the number 2 in the column instead of a checkmark.

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| **Accomplishment** | **Proposed?** | **Project Core?** | **Interrupt?** | **Demonstrated?**  **(to be filled by your TA)** |
| LEDs/Switches |  |  | N/A |  |
| Push buttons |  |  |  |  |
| Digital protoboard |  |  |  |  |
| VGA |  |  | N/A |  |
| 16x2 LCD |  |  | N/A |  |
| Lego motors |  |  | N/A |  |
| Lego sensors |  |  |  |  |
| Linking C with assembly |  |  | N/A |  |
| JTAG UART transmit |  |  |  |  |
| JTAG UART receive |  |  |  |  |
| Timer |  |  |  |  |
| Hexkeypad (rows or columns only) |  |  |  |  |
| Hexkeypad (rows and columns) |  |  |  |  |
| RS-232 UART transmit |  |  |  |  |
| RS-232 UART receive |  |  |  |  |
| DMA transfer |  |  |  |  |
| Nios II Custom Instruction |  |  | N/A |  |
| Audio Codec output to speakers |  |  |  |  |
| Audio Codec input from microphone |  |  |  |  |
| PS/2 Keyboard |  |  |  |  |
| PS/2 Mouse |  |  |  |  |
| SD Card Reader |  |  |  |  |
| Custom Bus Component |  |  |  |  |
| Ethernet |  |  |  |  |
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Please describe any other devices or complex software algorithms you will use. Remember to keep this relevant to ECE243 (not fancy electronic circuits or complex mechanical systems).

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# Project Milestones

Describe what parts of your project you will have fully implemented in each of the three project lab sessions. Keep in mind that you will have to demonstrate your project during the third project lab session. The key here is to design incrementally: get something working quickly and keep adding to it. TAs will not accept the “integrate everything in week 3” approach.

## First project lab session (week of March 17)

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## Second project lab session (week of March 31)

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## Third project lab session (week of April 7) – Demo

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# TA Notes

This page is filled by your TA.

## Approval

Approved by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## First project lab session (week of March 17)

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## Second project lab session (week of March 31)

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## Third project lab session (the week of April 7) – Demo

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