Design of Digital Circuits and Systems, Lab 6
Project Proposal

Proposal Requirements

Submit a PDF document to Gradescope detailing your proposed Lab 6 project, even if it is from the list of suggestions. This document should be only a few paragraphs long and will give us a chance to verify that you've put some thought into your project and that your project (especially if not from the list of suggestions), is of an appropriate difficulty level, *i.e.*, it is not too simple nor too difficult.

Recall that, in addition to the standard DE1-SoC switches and push buttons, you have the following peripherals available for use, though in pre-defined subsets based on the LabsLand interfaces:

1) A VGA display (building off of Lab 5, but note that there is a new driver available for Lab 6).

2) Sound output from a speaker (building off of Lab 3)†.

3) A virtual 360-degree joystick.

4) An "N8" controller, shown in the form of an old controller from the Nintendo Entertainment System (4 directional pad, Select, Start, A, B).

† Recall that LabsLand does not allow you hear your audio live.

In your proposal:

- Describe your major project behavior, features, components/modules, and user interaction.

- Include at least a top-level block diagram (other diagrams welcome). Be sure to label the blocks and ports in your diagram as best you can. Don't worry if the final design differs from your proposal.

Lab 6 Proposal Rubric

Grading Criteria	Points
Project description	5 pts
System block diagram, with labels	5 pts
	10 pts