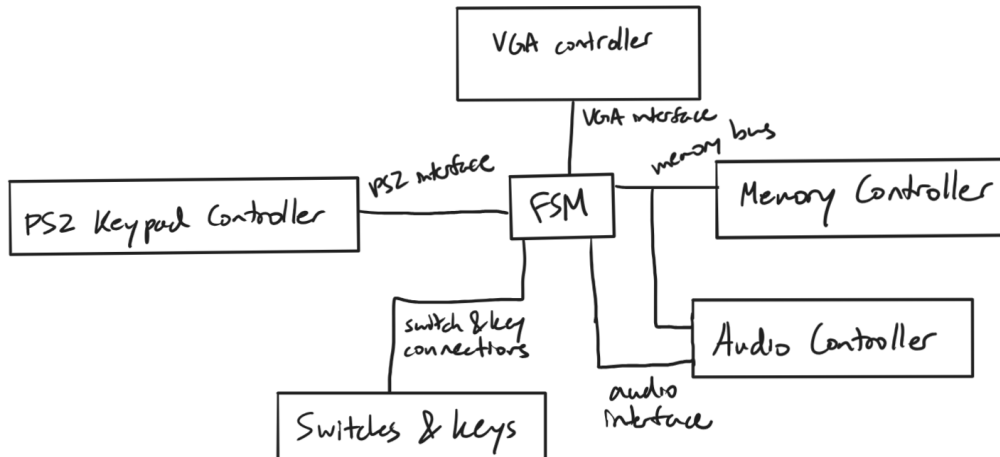


ECE241 Project Proposal: Music Maker

The music maker lets you record songs! Notes are input using a PS2 keypad and saved to off-chip memory, all with a nice VGA display. Songs can be played back at the user's request; users can even let other users play their songs.

High Level Block Diagram



Task Division

Frank	<ul style="list-style-type: none"> VGA display, moving with double buffering (0.5 points) FSM with >10 states (0.5 points)
Bryan	<ul style="list-style-type: none"> DDR and off-chip memory, with complex access scheme (0.25 points) Switches and Keys (0.25 points)
Kriston	<ul style="list-style-type: none"> Audio output (0.5 points) PS2 keypad interface (0.5 points)

Project Timeline

Week of	Task
Nov 6	<ul style="list-style-type: none"> Frank: Initial FSM draft and VGA module to show moving images. Bryan: Research DDR chip interface, design initial memory protocol. Kriston: Research PS2 keypad protocol, and implement PS2 controller.
Nov 13	<ul style="list-style-type: none"> Frank: Implement double buffering for VGA to eliminate tearing. Bryan: Implement memory controller module. Kriston: Research audio interface, begin implementing audio module.
Nov 20	<ul style="list-style-type: none"> Frank: Finalize FSM, and prepare it for integration. Bryan: Implement switch and key connections. Kriston: Finalize audio module. All members: Begin integrating components.
Nov 27	<ul style="list-style-type: none"> All members: Finish integration.
Dec 4	<ul style="list-style-type: none"> Project demo time!