

ECE 367 Final Project

ECE 367 – Microprocessor Design (Spring 2013)

PROFESSOR: Robert Becker

T.A.: Chenjie Tang

MWF – 10:00AM – 11:50PM

T Lab: 8:00AM – 10:50AM

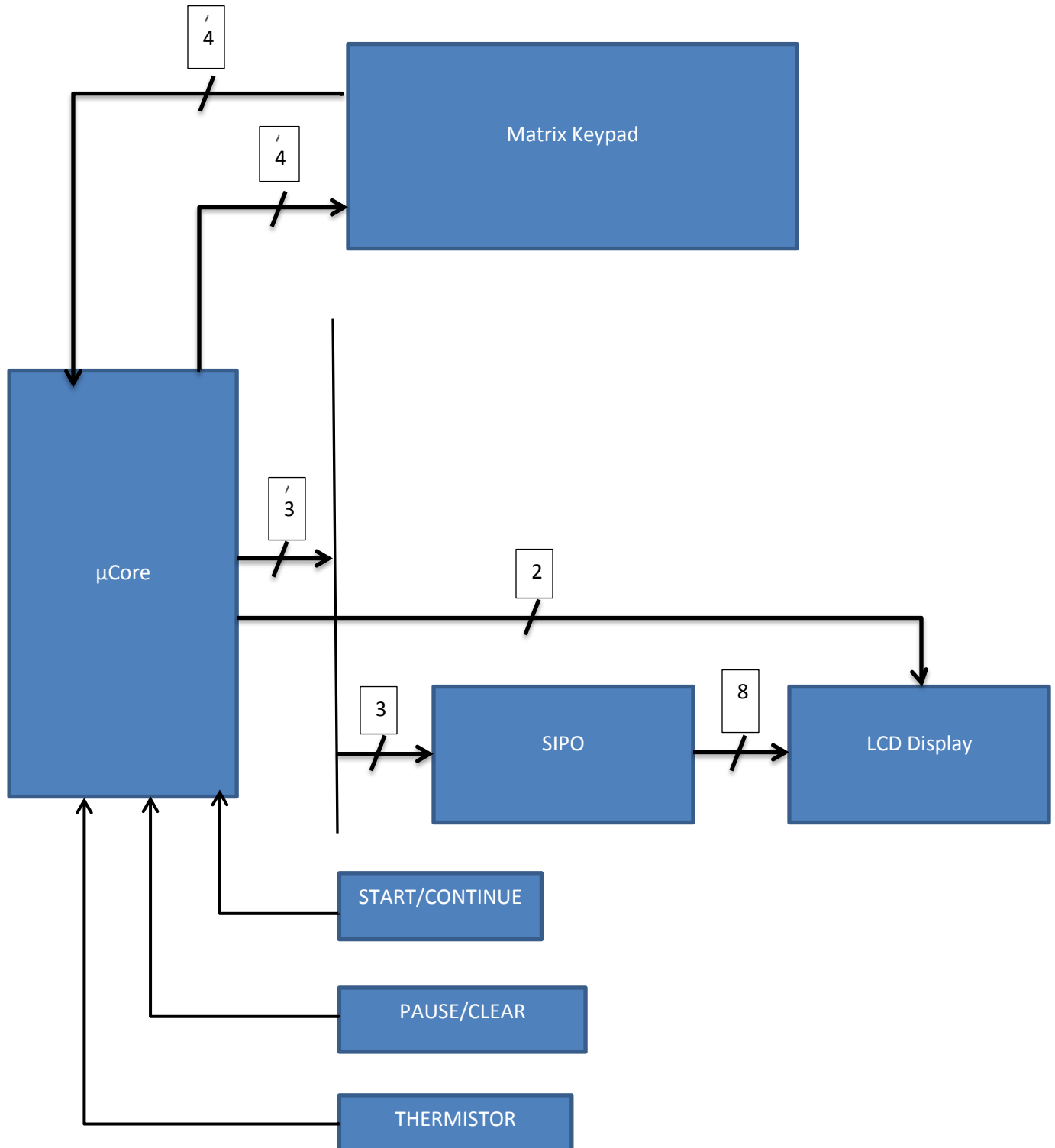
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Date Submitted: Thursday, April 23rd, 2013

I. Logic Diagram



II. Schematic Diagram

- I. See attached sheet following this page.

III. 9S12 Assembler Program

See following page.

IV. USER MANUAL

See following page.

V. Conclusion.

- I. How well does your project meet the specifications?
 - I. It has a countdown timer set control for minutes and seconds
 - II. It has implemented the start/continue key, Press once to start. Press again after pause to continue.
 - III. Pause/Clear Key. Press once for pause. Press again for Stop/Clear if the Start/Continue has not been pressed.
 - IV. The LCD shows the current state of the system.
 - V. The system implemented 5 interrupts (3 timer, XIRQ, and IRQ).
 - VI. This has a power setting indicator and indicates the current power on the LCD as well as the Power LED (microwave element).
 - VII. Easy Cook key that sets the timer to 30 seconds and automatically starts the oven on full power.
- VIII. A menu key complete with 3 different options
- IX. Temperature probe function from an internal 10-bit A/D line. This setting allows the microwave to automatically shut off when the set-point is reached.
- X. All features listed above were successfully implemented fully and work correctly. Although I haven't had a focus testing group to test the control panel, I have operated it multiple times and have worked all major bugs out of the system.