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[The Computing Technology Inside Your Smartphone] Overview of week 3

The Computing Technology Inside Your Smartphone <ENGRI1210x-no-reply@courseupdates.edx.org> To: KarenWest15@gmail.com

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The Computing Technology Inside Your Smartphone



Welcome to the last week of digital logic! As usual, this week's content goes live at 18:00 UTC/GMT. We are taking the final steps in building up our digital logic knowledge and design skills by covering storage, sequential circuits, and finite state machines. After completing the digital logic section of the course, you'll be prepared for the computer organization part that starts next week.

We'll first design storage components that retain binary data using logic gates. Then we'll create memories that hold the instructions and data of a computer program. The week will conclude with finite state machines (FSMs), which provide the control or "orchestration" within computer systems. Next week, you'll see how an FSM performs a sequence of steps--such as telling our ALU whether to perform addition, AND, NOT, or pass through--in the process of executing each instruction in a computer program.

We'll be building lots of components in Jade, and KK has some new tips that address some of the issues that some students experienced last week.

This week, we are also releasing guest interviews covering Snapdragon SoCs, design for low power, asynchronous circuits, research in the field, future directions, educational issues, and careers. In addition to the full interviews, you'll see portions of the interviews included in relevant sections of the course. These interviews are optional and don't include anything that you will need to solve problems or build labs. However, I think you'll find some great stuff within them.

Remember that, when posting questions, you should:

- · Avoid including answers to questions, which may result in us deleting your entire post.
- Be specific about the lab giving you difficulty.
- Ensure that you click the Check button at the bottom of the lab before asking a question that may require us to look at your design.

On behalf of the course staff, good luck and have fun!

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