

Karen West <karenwest15@gmail.com>

[The Computing Technology Inside Your Smartphone] Overview of week 2

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 week 2 of the course! This week's content goes live at 18:00 UTC/GMT. We are going to get deep into hardware design, and create some of the building blocks that we'll put together later on when we design our computer.

First, we'll discuss the operation of transistors, and then put them together into what are called logic gates, which perform the logic functions AND, OR, and NOT that we learned in week 1. Using these three basic gates, we'll design useful digital logic functions such as decoders, multiplexors, and adders. We'll also learn how to create any arbitrary logic function using these basic gates, as well as an important property called DeMorgan's Law, which permits using other gates called NAND and NOR in place of AND and OR.

You'll also do quite a bit of design this week using the Jade tool, so you should be prepared to spend more time on the course than you did in week 1. However, in the end you'll have designed some pretty cool circuits, including an arithmetic unit.

As always, we are here to answer your questions, including on using Jade. Make sure that you post questions in the right place so that the course staff and other students can easily find them. We've made that easier by creating a discussion thread for each page, and buttons on each page that take you right to that discussion.

We've seen many examples of peer teaching, students helping other students, which is a great way for both students to learn. Keep up the good work!

Be sure to use #SmartphoneMOOC when tweeting about the course, and invite your family and friends to join us.

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

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