Help

Courseware (/courses/UTAustinX/UT.6.01x/1T2014/courseware) **Course Info (/courses/UTAustinX/UT.6.01x/1T2014/info)**

Discussion (/courses/UTAustinX/UT.6.01x/1T2014/discussion/forum) **Wiki (/courses/UTAustinX/UT.6.01x/1T2014/course_wiki)**

Progress (/courses/UTAustinX/UT.6.01x/1T2014/progress)

Questions (/courses/UTAustinX/UT.6.01x/1T2014/a3da417940af4ec49a9c02b3eae3460b/)

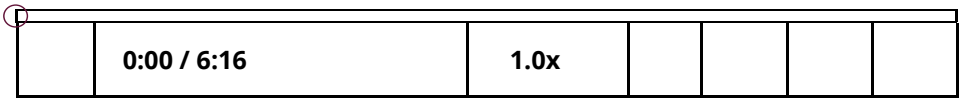
Syllabus (/courses/UTAustinX/UT.6.01x/1T2014/a827a8b3cc204927b6efaa49580170d1/)

To solve problems using a computer, we need to understand numbers and what they mean. Each digit in a **decimal** number has a place and a value. The **place** is a power of 10 and the **value** is selected from the set {0, 1, 2, 3, 4, 5, 6, 7, 8, 9}. A decimal number is simply a combination of its digits multiplied by powers of 10.

In a similar manner, each digit in a **binary** number has a place and a value. In binary numbers, the place is a power of 2, and the value is selected from the set {0, 1}. A binary number is simply a combination of its digits multiplied by powers of 2.

VIDEO 2.1 BINARY REPRESENTATION

Help



DR. RAMESH YERRABALLI: So in this module, as we said, we're going to

look at some fundamental concepts that underlie embedded systems.

But before we get to components of an embedded system, we want to get some

basics out of the way.

The first important concept we're going to look at is number systems.

That is, all computers use a basic representation for numbers