

**Physics 335, Spring Quarter 2012**  
**Electric Circuits II**  
**Homework Assignment 2**  
**Revised due-date 9:30am Thursday April 12**

Exercises in sequential logic.

1. Using basic one- or two-input logic gates, make a careful sketch of how to convert a J-K flip-flop into a D-type flip-flop.
2. Using basic one- or two-input logic gates, make a careful sketch of how to convert a D-type flip-flop into a J-K flip-flop. Hint: In class we talked about the Boolean-logic expression for the J-K flip-flop.
3. Textbook (Horowitz and Hill) Exercise 8.27 (p. 516). This problem will likely not be graded; it's somewhat challenging both to develop the circuit and document it in a straightforward manner.

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