

## Lab 2 Rotating Square Circuit

Demo is due on 14<sup>th</sup>, Feb., report is due on 16<sup>th</sup>, Feb.

In a seven-segment LED display, a square pattern can be created by enabling the a, b, f, and g segments or the c, d, e, and g segments. We want to design a circuit that circulates the square patterns in the four-digit seven-segment LED display. The clockwise circulating pattern is shown in Fig. 4.12. The circuit should have an input, en, which enables the circulation, and an input, cw, which specifies the direction (i.e., clockwise or counterclockwise) of the circulation.

Refer to the textbook for the seven-segment LED display code and time multiplexing code. Design the circuit and verify its operation on the prototyping board. Make sure that the circulation rate is slow enough for visual inspection.

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