LAB-2

Rotating LED Banner Circuit

The prototyping Board has a four digit seven segment LED display, and thus only four symbols can be displayed at a time. We can show more information if the data is rotated and moved continuously. For example, assume that the message is 10 digits (i.e., "0123456789"), the display can show the message as "0123", "1234", "2345", ..., "6789", "7890", "0123". The circuit should have an input, en, which enables or pauses the rotation, and an input, dir, which specifies the direction (rotate left or rotate right).

Design the circuit and verify its operation on the prototyping board. Make sure that the rotation rate is slow enough for visual inspection.