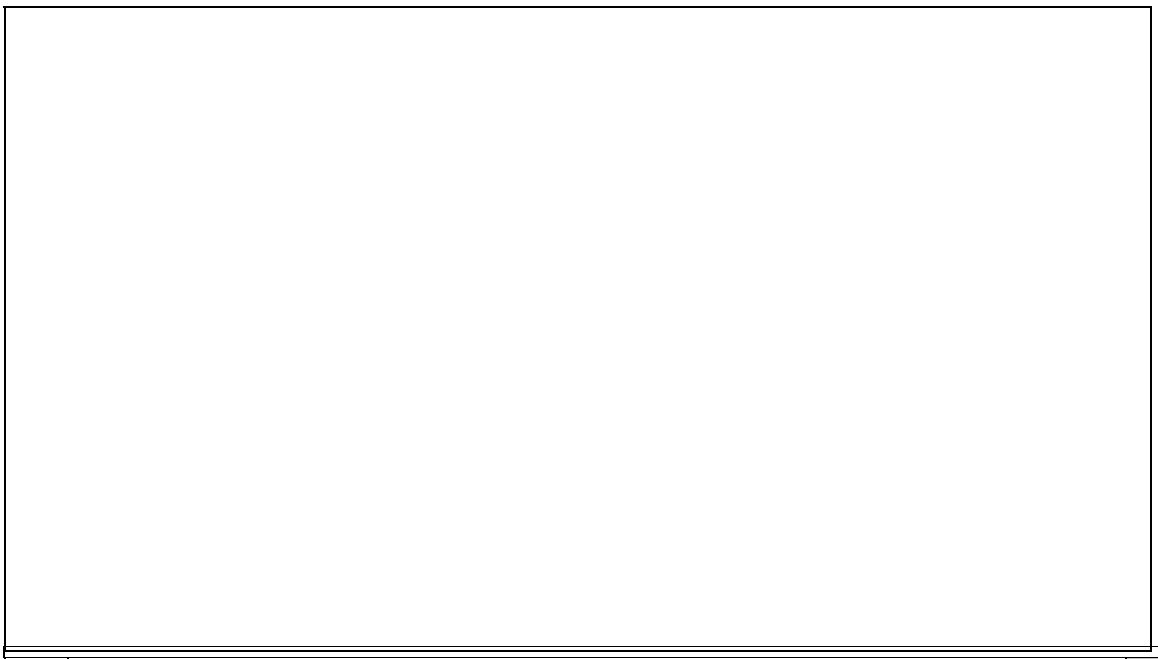
In this module, we will start putting together what we have learned about the LC-3's instruction set, and what we have learned about digital logic circuits, to start building our implementation of the LC-3 hardware. We will construct the hardware to perform an ADD and LDR instruction.

At the end of this module, you will be able to:

- Design the hardware needed to implement the ADD and LDR instructions, including the register file, ALU, and memory.
- Describe the general operation of the Finite State Machine that controls LC-3 instruction execution.

INTRODUCING LC-3



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