

Exercise 5

For the state diagram given below (Figure 1) synthesize the circuit and then realize it on the breadboard using NAND gates only. After short experimenting with the circuit, describe in words its behavior.

During classes you will have to assemble the logic circuit using breadboard. Use NAND gates only. The output of the circuit and the output of each flip-flop have to be connected to LED bar.

Before the classes research the technical details and usage of flip-flops from the breadboard (i.e. 7474, 7476) including the truth table for D and JK flip-flops.

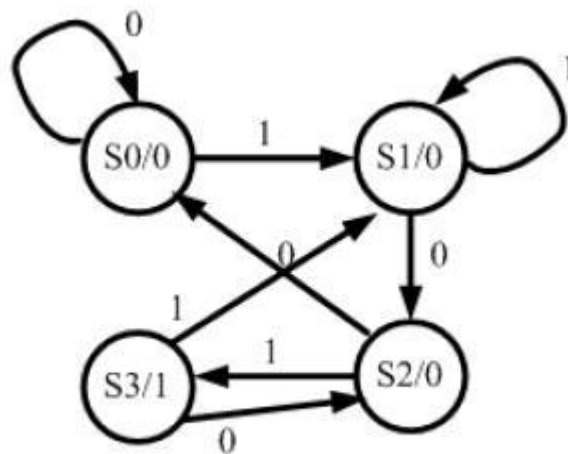


Figure 1