

Finite State Machine FSM



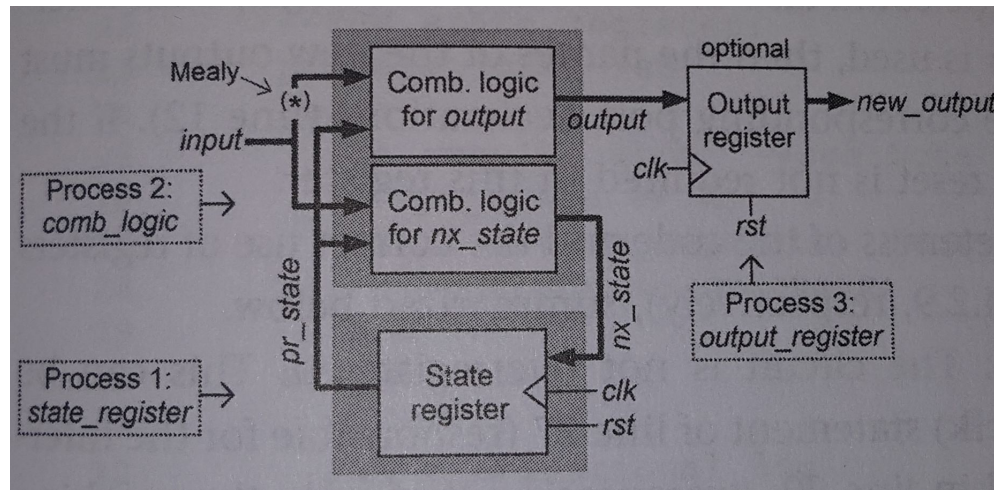
Machine type

Moore

The input, if it exist, is connected only to the logic block that computes the next state

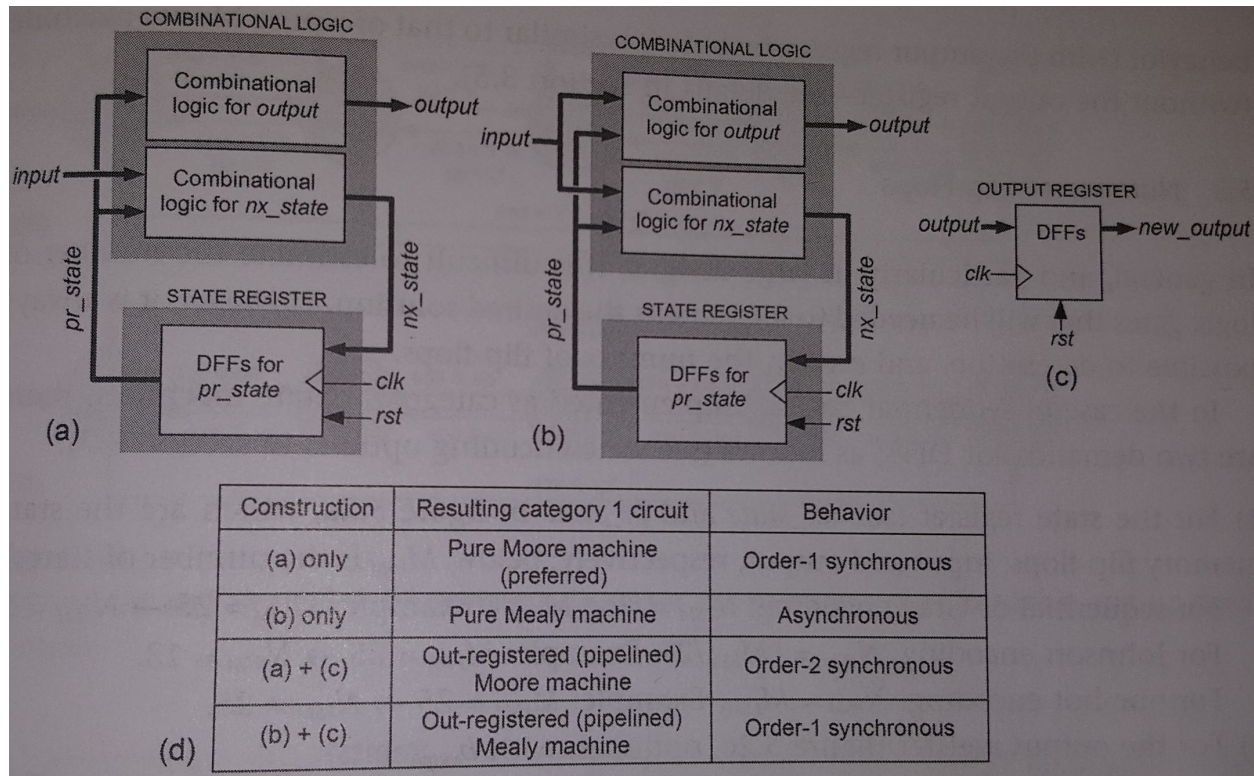
Mealy

The input is connected to both logic block, that is, for the next state and for the actual output.



Category 1

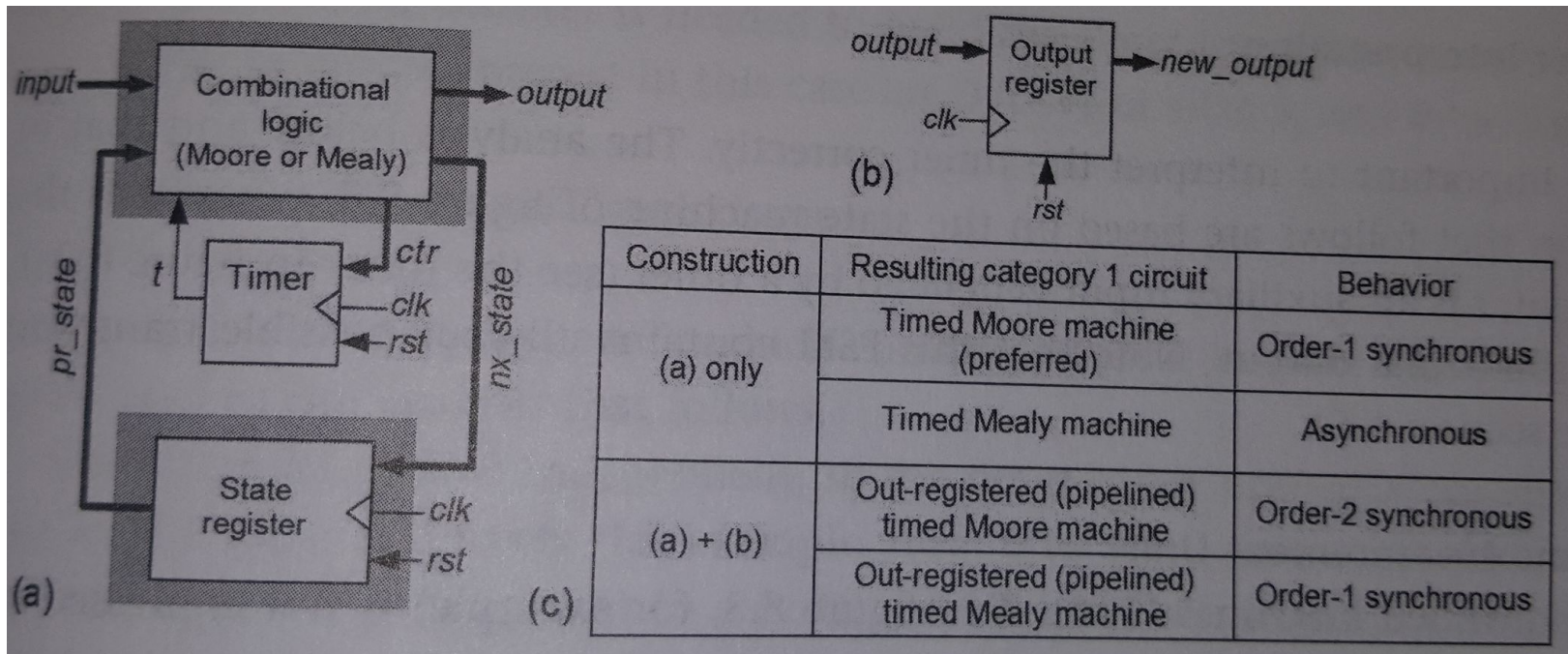
Output dependent only on input and state
 State dependent on previous state and input



Category 2

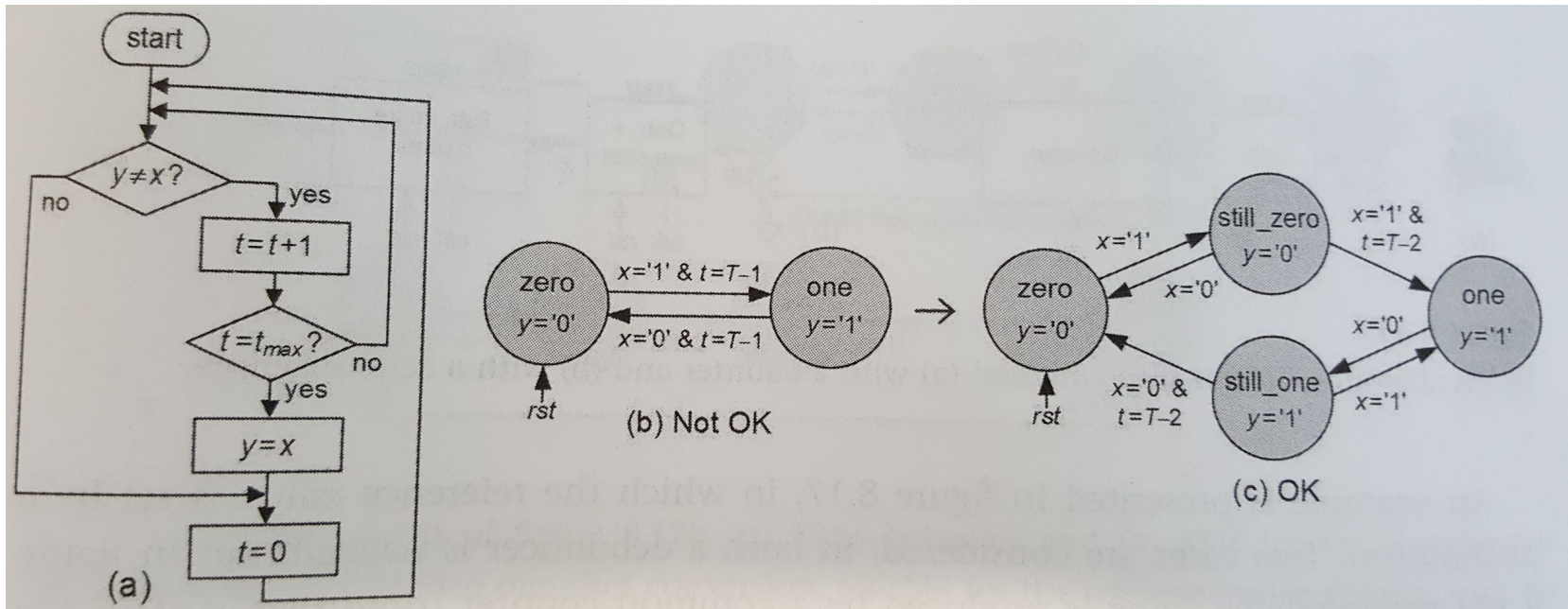
Output dependent only on input and state

State dependent on previous state, input and timer



Category 2

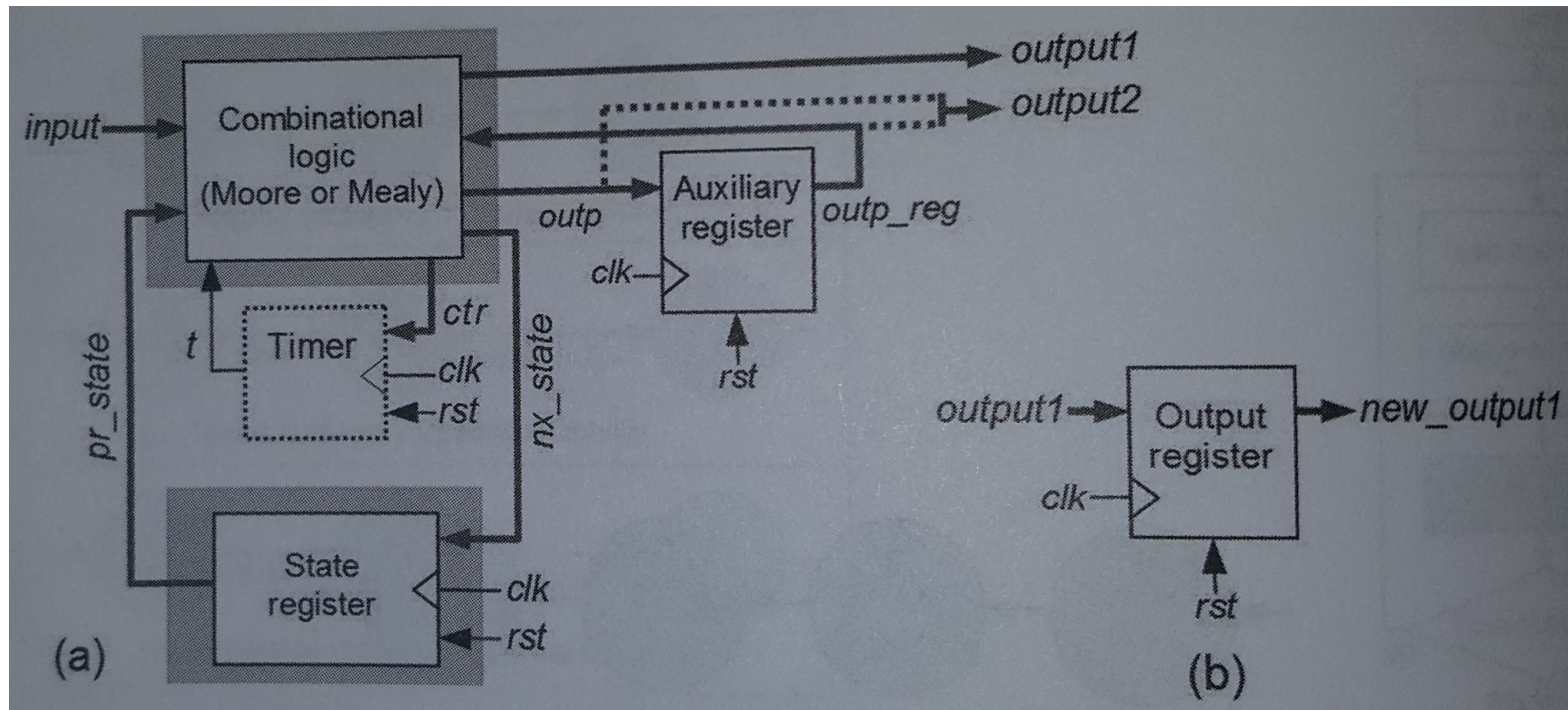
Example of switch debouncer cat 2 FSM



Category 3

Output dependent on input, state and previous output

State dependent on previous state, input, output. (timer is optional)



Category 3

Example of memory writer cat 3 FSM

