Design of Elevator using ASM Chart
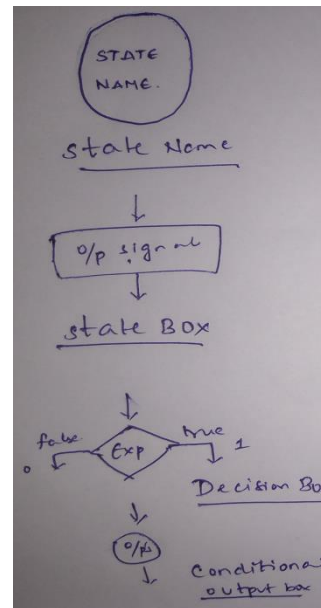
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February 28, 2022

Abstract

Algorithmic State Machine (ASM) Chart is a special type
of chart which is used to specify the design of a digital
circuit. It is quite easier to understand the process of
designing of a digital circuit. Elevator consisting of four
floors is designed using ASM Chart by utilizing
multiplexers and D-Flip-flops.

1 Reference Circuit Details

As shown in the figure we have ASM Chart
consisting of mainly four blocks as follows:

A) State name: it defines in which state it is.

B) State box : it consists of output of the state

C) Decision box : it consists of condition to be
executed/tested

D) Conditional box : it consists of input path from
decision box where output lists are written

- ## Reference Circuit

Figure 1: Reference circuit diagram.
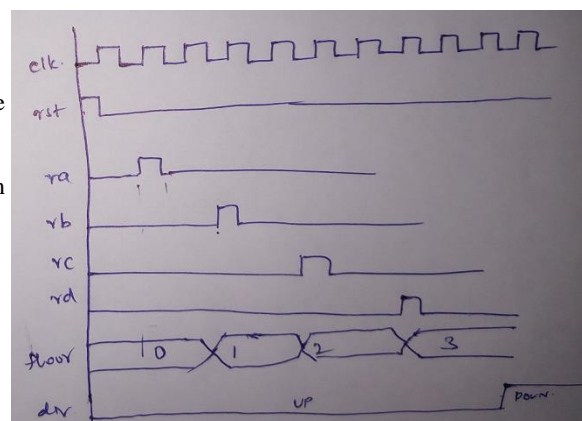
2 Reference Circuit Waveforms

Figure 2: Reference waveform.

References

1. Morris Mano, "Digital Design with an
   introduction to Verilog HDL".