**Assumptions**

1. The cloth cutter works on a Rising edge. i.e. The machine cuts cloth instantaneously whenever the transition of 0 to 1 happens in the output signal
2. The time delay because of the circuit components are neglected except for the delay because of the clock as frequency of the clock is very slow compared to the propagation delay due to circuit.
3. Frequency of Clock = x(m/s)/1(m)

Where x is the speed of the incoming cloth.

1. We are assuming that user is entering all the inputs for selected no. of patterns.

i.e. if no. of pattern=1 then A is not 0

if no. of pattern=2 then A, and B are not 0

if no. of pattern=3 then A,B, and C are not 0

if no. of pattern=4 then A,B,C, and D are not 0

1. The circuit would be “switched on” only when the inputs has been entered.