

ade lab simulation

Asynchronous Up Counter Simulation



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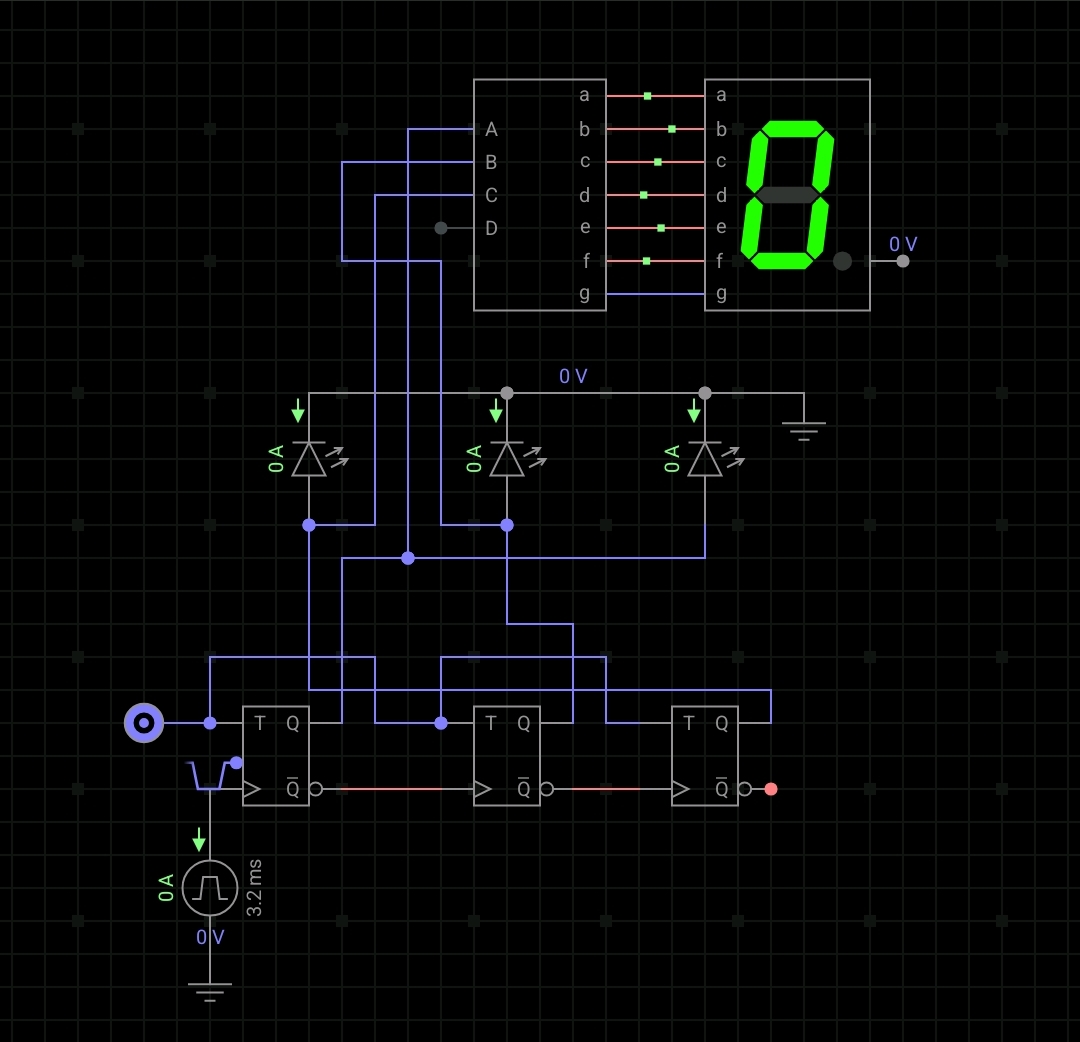
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**Asynchronous Up Counter**

**Aim:** To display 3 bit binary digits from 0 to 7 using asynchronous up counter.

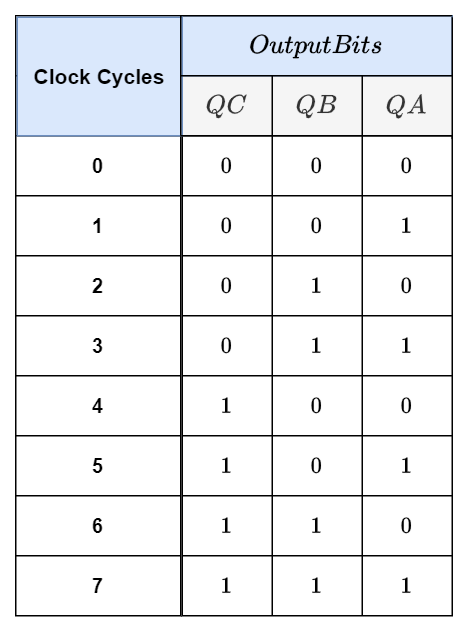
**Theory**: 3 bit asynchronous counter can be made by using sequential circuit of 3 T flip-flop. Then 3-bit binary number can be displayed by 7-segment display using BCD decoder.

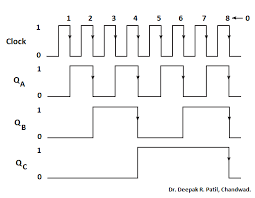
**Circuit Diagram:**



**Truth Table**:

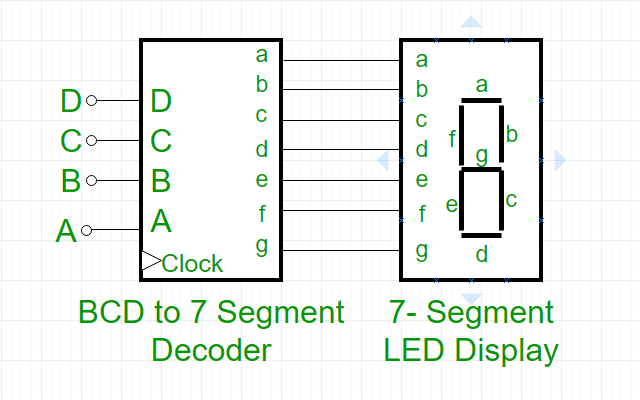
Asynchronous counter:





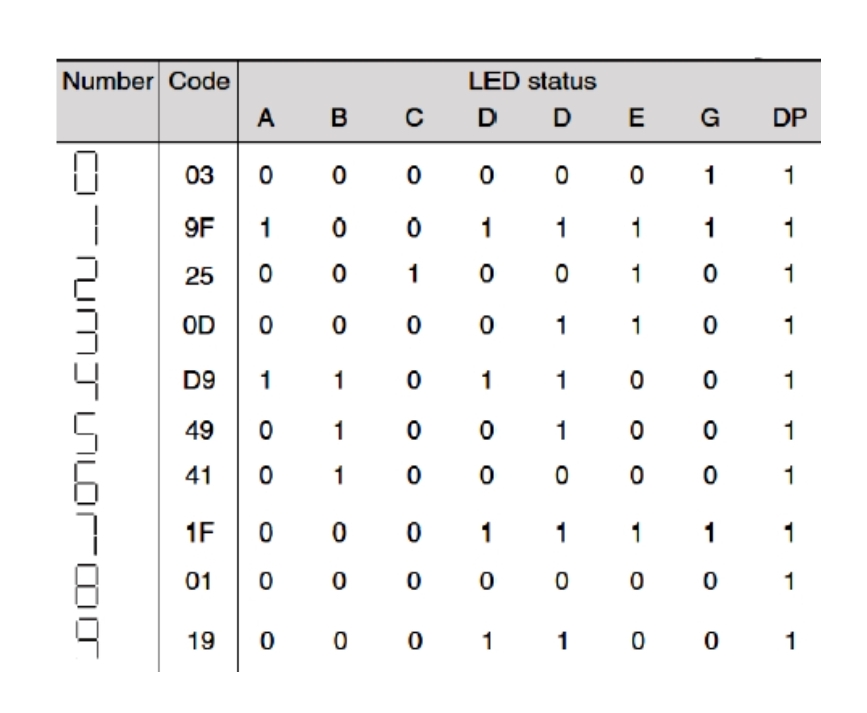
The binary output from the 3 bit asynchronous counter is given as input to BCD converter and it is displayed by 7 segment display as shown

**BCD to 7 segment decoder**:



**Final output**:





**Thank You** for your understanding.