Digital Stopwatch

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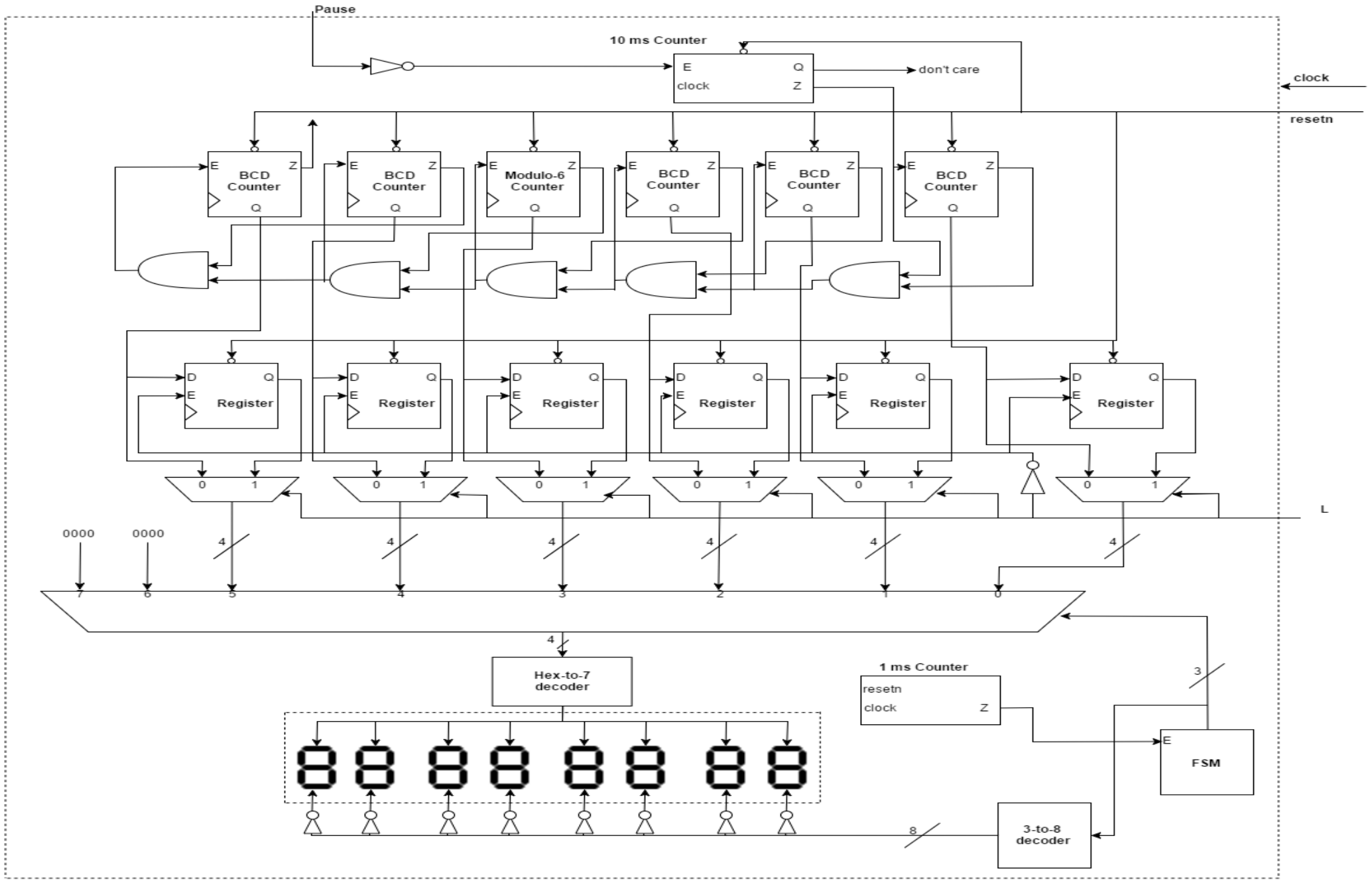
Functionality

- Max time of 99:59:99 displayed on the 7-segment display
- Increments of 10 ms (0.01 s)
- Start/Pause – Starts and pauses the time
- Lap – Displays the current time on the 7-segment Display for as long as the switch is up
- Reset – Resets the time to 00:00:00
- Clock – Built in 100 mHz

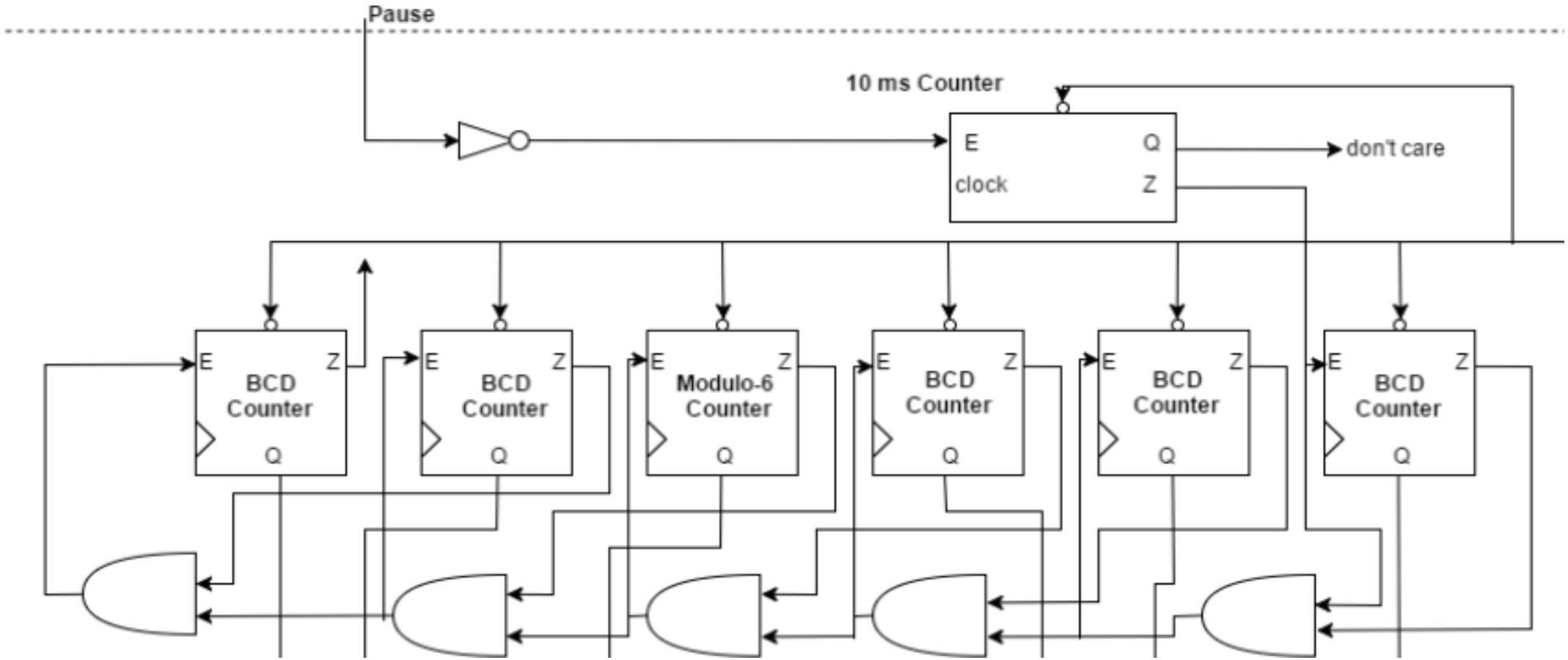
Counters

Lap Function

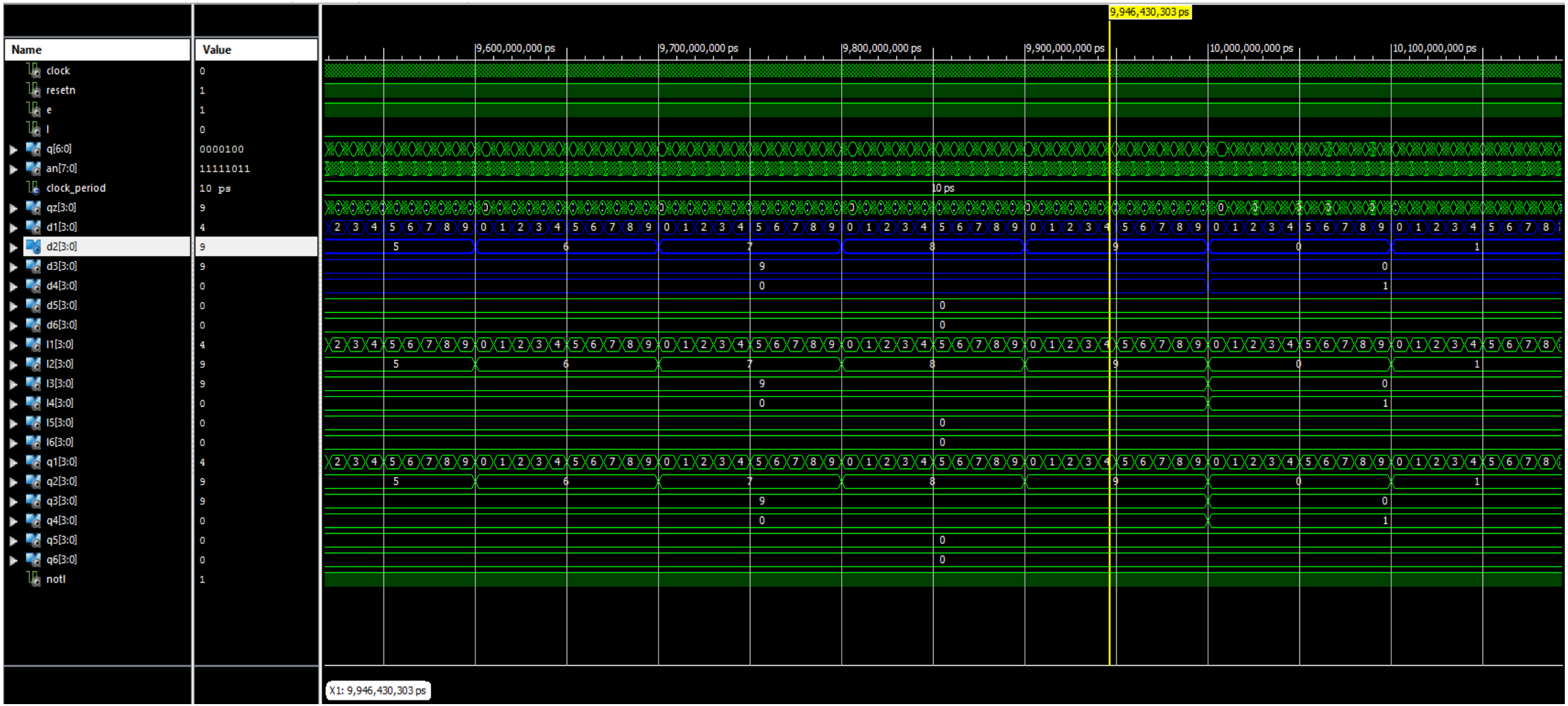
Display



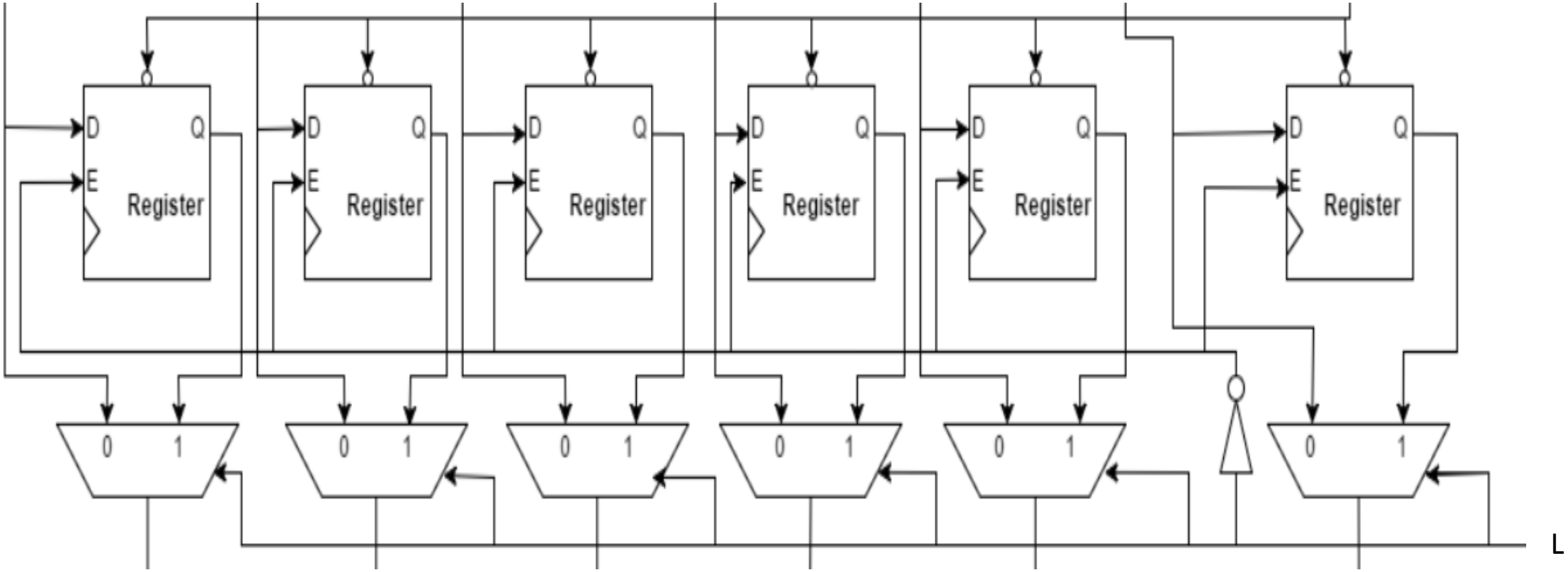
Counters


Pause
10 ms Counter
E
clock
Q
Z
don't care
E
BCD
Counter
Q
Z
E
BCD
Counter
Q
Z
E
Modulo-6
Counter
Q
Z
E
BCD
Counter
Q
Z
E
BCD
Counter
Q
Z
E
BCD
Counter
Q
Z

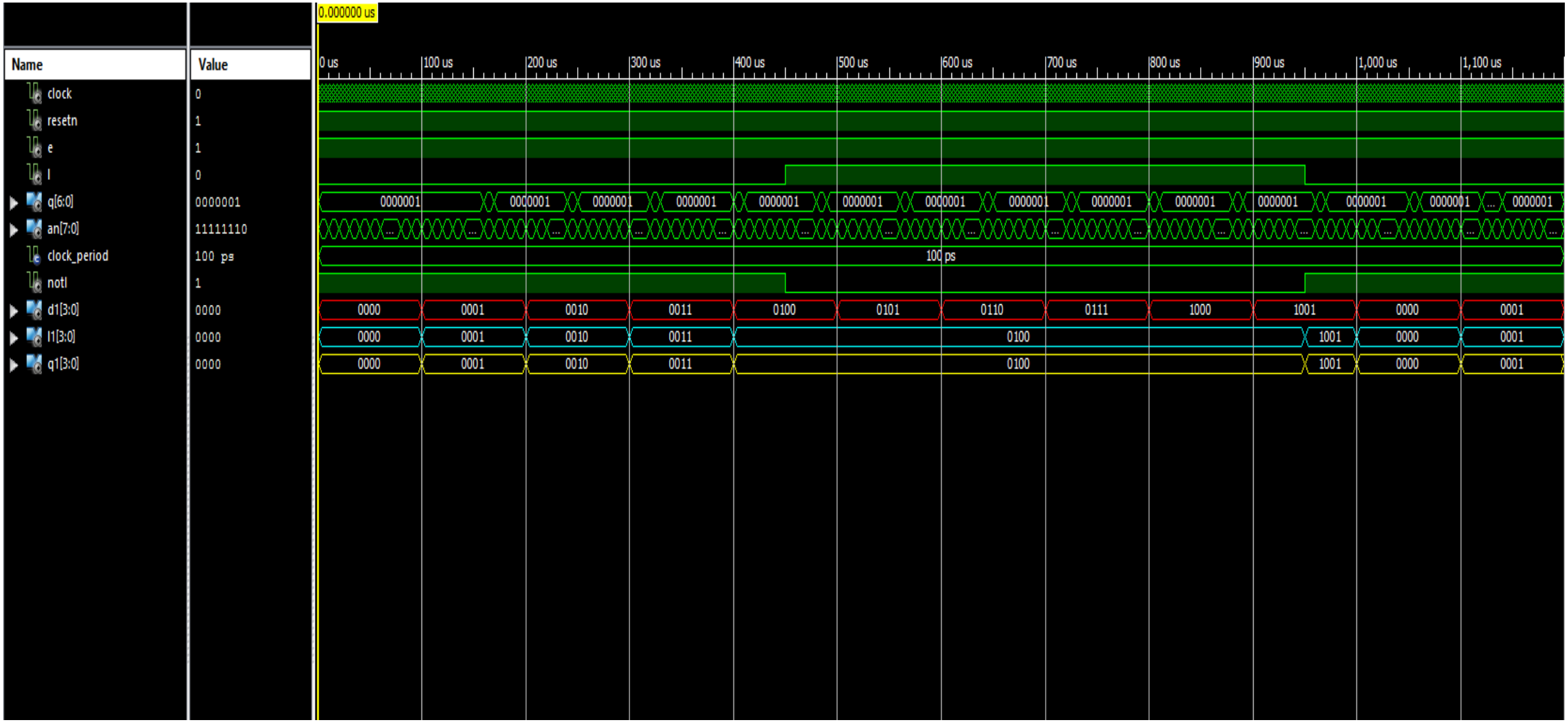
Counter Simulation



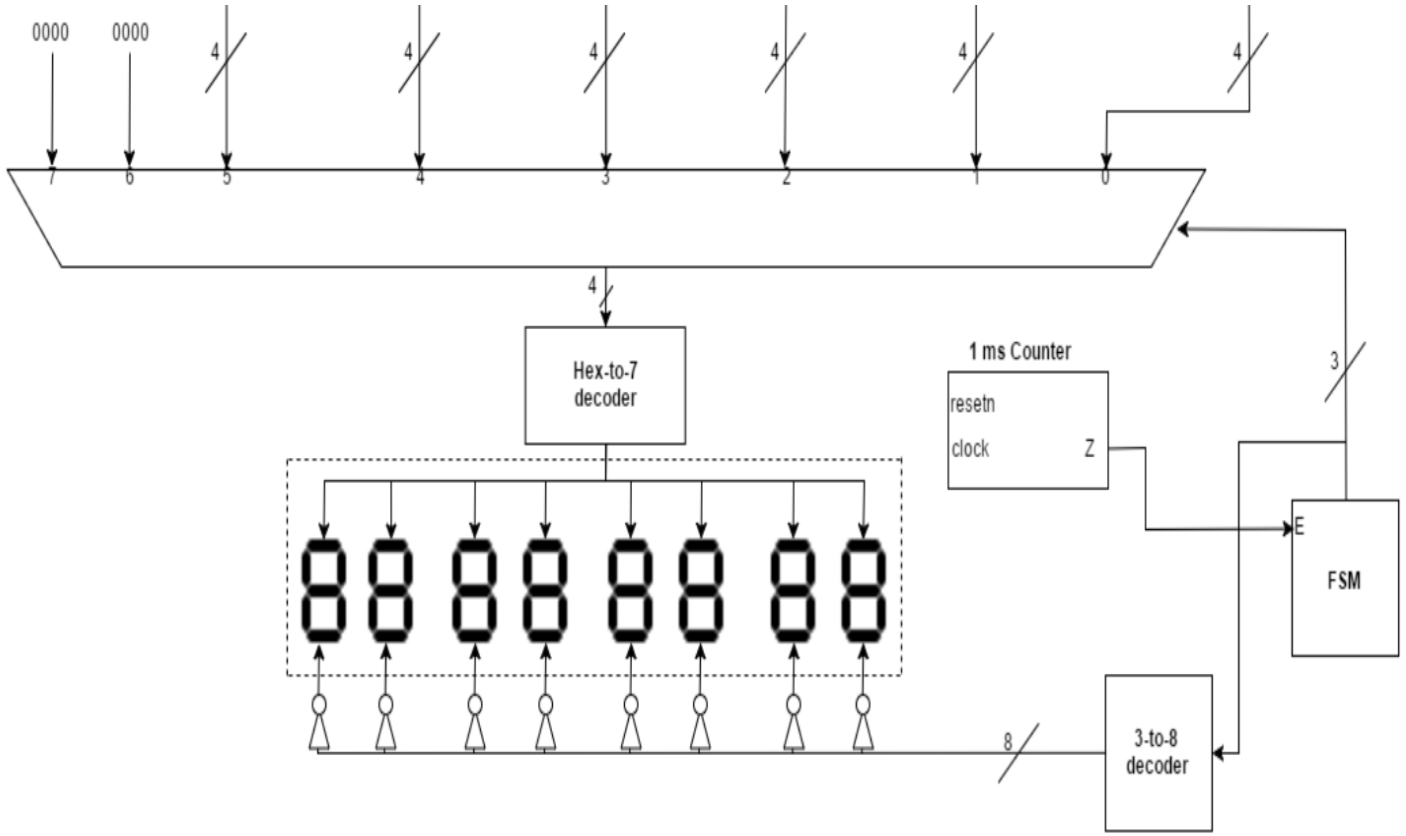
Lap Function



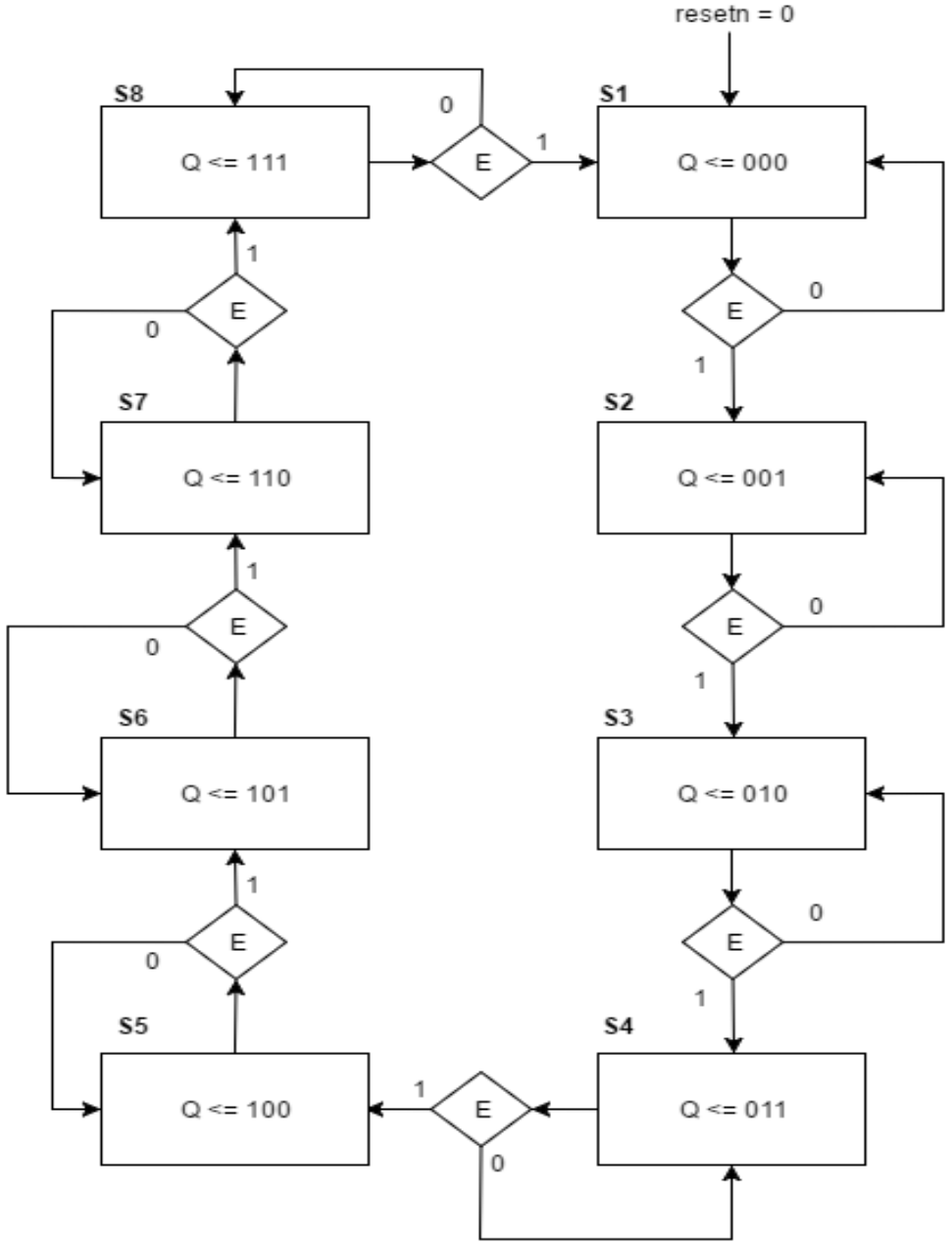
Lap Function



Display



FSM (ASM Form)



Demo Time