**Simulation:**

Brief description of the simulator, Screen shots of Complete design, Input and outputs of our design under various possible use cases with brief explanation)

Case1:

Working Of Seconds Timer

A circuit board with colorful wires

Description automatically generated

Case 2:

Working of Minutes Timer

A circuit board with wires and numbers

Description automatically generated

Case 3:

Working of Mod 60 and Hours Timer(Mod 24)

A circuit board with colorful wires

Description automatically generated

**Outcome and Conclusion:**

The digital clock sequential diagram demonstrates the synchronized operation of components such as counters, flip-flops, and decoders. Through a sequential logic design, the clock signal triggers sequential steps in timekeeping, encompassing hour, minute, and second divisions. These divisions undergo binary-to-decimal conversion before driving display drivers for numerical output. The diagram showcases a sequential flow ensuring accurate time representation by managing data paths and control signals effectively. Overall, the sequential diagram elucidates the orchestrated interplay of components to achieve precise time measurement and display.