Another key components of our design is 7-segment-display, which has two main sections—the Units Display and the Tens Display.

Let’s starting with the **Units Display**

 This section shows values from 0 to 9, representing the units digit of the counter value.

 It’s driven by decoded signals labeled Sa, Sb, Sc, Sd, Se, Sf, and Sg, which are generated from the 4-bit counter output—A3, A2, A1, and A0.

Now moving on to the **Tens Display**:

* The Tens Display shows values of 0 or 1, representing the tens digit of the counter value.
* It’s controlled by a signal called N, which indicates when the counter value exceeds 9.

Together, these two displays ensure that our 7-segment system can clearly show both the units and tens values of the counter.